

Better Politicians: If We Pay, Will They Come?*

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The study of political leadership has been dominated by biographical treatments that explore unique experiences in the hope of locating enduring insights, and by aggregate studies that explore career patterns, including recruitment processes and problems of persistent underrepresentation. Implicit in much of this work is the idea that leadership is an important variable in the production of good public policy and that removing obstacles to the recruitment of good leaders is a worthy objective of political reformers. In sum, we would be well served by competent leaders and we should take measures to improve leadership competence.

This paper asks, first, whether competence is valued and, second, whether higher levels of compensation are likely to attract stronger, more competent politicians. In doing so it raises the conceptual question of what constitutes competence and the methodological question of how to connect competence and compensation. The latter connection may appear straightforward: increases in compensation reduce opportunity costs for those with talent and induce them to consider a life (or at least a period) in politics. Unfortunately, there is nothing inevitable about this as researchers have begun to discover (Messner and Polborn 2004). Compensation may attract better politicians, but it may also increase the willingness of those with fewer alternatives to venture into the political realm, just as it may discourage less able incumbents to hold on to a job that has taken a lucrative turn.

Recent literature on competence and compensation has been heavily influenced by what are referred to as citizen-candidate models of political representation (Besley and Coate 1997; Osborne and Slivinski 1996). In these models any citizen can offer herself as a candidate and will do so based on a cost-benefit analysis that includes a consideration of the costs of running, the likelihood of winning, and an estimate of who else might run (Pontvaara and Takalo 2007). Voters choose candidates whose policy preferences resemble their own and who are

presumed to be capable of implementing them. Thus the model turns on the supply of competent candidates and the incentives that would induce them to enter political life. In the language of rational choice, candidates “must solve a dynamic optimization problem to determine the current decision that maximizes expected present value of lifetime utility” (Diermeier et. al. 2005). Compensation, in this setup, may be important but there are a host of other considerations for would-be candidates, including electability and campaign costs.

In this paper we depart from the citizen-candidate model to emphasize the role of political party leaders in recruiting candidates. Parties make no systematic appearance in citizen-candidate models, and yet in virtually all liberal democracies, particularly parliamentary ones, parties organize governance from the selection of candidates to the selection of the political executive. Where the citizen-candidate model emphasizes the supply of politicians, a party-selection model concentrates on the demand side. Specifically, leaders demand candidates who meet competence requirements. The preference for competence arises out of the need to govern effectively either to secure reelection or to achieve ideological goals, or both. Compensation, in this model, becomes a tool used by political leaders to secure good politicians. It is no more reliable, however, than in the citizen-candidate framework because the compensation of political executives is highly constrained and poorly correlated with the complexity of political tasks.

In this paper we examine the case for competence and show that in selecting for executive roles prime ministers have a preference for those with the education required to discharge them. We then consider whether compensation changes are likely to improve the caliber of politicians in general. The paper traces the history of compensation changes and takes advantage of a natural experiment regarding compensation increases in the Canadian parliament. In 2001, following years of study and very little change, parliament voted to increase substantially the remuneration received by politicians. Many MPs elected prior to this development were reelected in 2004; others joined Parliament after the election of 2000, just months before the compensation increase; still others were new entrants in 2004.

We examine MPs before and after the changes to determine whether there was any demonstrable change in the characteristics and qualifications of successful politicians during this period.

We begin in Section 1, with the matter of competence, its measurement and its importance. Section 2 describes the levels and types of compensation available to MPs during the past 40 years, culminating in the 2001 changes. Section 3 describes trends in the backgrounds and qualifications of MPs and shows that while many variables influence selection to cabinet, educational qualifications are associated with increased responsibility. Section 4 discusses the results of a difference-in-differences model that seeks to isolate the impact of compensation changes. Section 5 concludes.

1. The Case for Competence

Is there any reason for preferring competent leaders to incompetent ones, assuming competence can be defined and measured? The answer to this question is not straightforward. In the first place, it is possible that leaders, regardless of their quality, make little difference to the provision of public goods or the avoidance of policy disaster. Historical institutionalists, while careful not to denigrate leadership, emphasize that countries are on slow moving trajectories that have typically been determined centuries earlier by benign or malignant historical conjunctions (Pierson 2003). From this perspective, not even natural endowments are as important as political and economic institutions in determining whether countries can expect political stability and economic growth, or internal strife, income inequality and endemic corruption.

Similarly, public choice theorists consistently place their faith in the design of institutions that direct the efforts of leaders toward the achievement of social optima. There is no suggestion, as James Buchanan (1989, 18) puts it “that improvement lies in the selection of morally superior agents who will use their powers in some public interest.” Leaders matter only because they respond to institutionally organized incentives to make policy adjustments that citizens

demand (e.g. Acemoglu and Robinson 2006). Put another way, from a public choice perspective, good institutions can withstand poor leaders and do not require exceptional ones.

The alternative view is that leaders matter a great deal and, in the extreme, they are all that matter. The history of the twentieth century, in this view, could be written around the biographies of Stalin, Ataturk, Churchill, Roosevelt, Hitler, Mao, Thatcher and a few select others. Their leadership set the tone for all decisions, many of them disastrous, some of them inspired. Apart from these dramatic figures, there is broad empirical support for the view that leadership transitions are often accompanied by significant changes in economic fortune. Mao presided over a 30 year long period of agonizingly slow growth, but his death ushered in a very different leadership and an era of unprecedented economic development. Needless to say, this kind of beneficent change does not occur with every transition, but it does appear that in autocracies, especially those that operate without political parties, transitions often result in marked improvement in public policy outcomes. In short, leaders seem to matter most when institutions are weak (Jones and Olken 2005, 858).

In liberal democracies voters are not indifferent regarding leadership. They may follow Hume's advice and presume every politician a knave, but voters still have preferences and the institutions of electoral democracy are intended, in part, to reveal the qualifications of candidates as well as the package of policies they offer.

What are the qualifications most in demand? Besley (2006, 38) suggests that there are two relevant categories: competence and motivation. The latter allows for the possibility that politicians may differ in their integrity, honesty and public devotion. It seems safe to presume that voters would prefer candidates with these qualities if only because honesty, for example, makes it easier to infer fidelity to announced platforms. Still, voters typically find it difficult to discern and discriminate on the basis of integrity. Political competition may encourage candidates to emphasize integrity advantages, and voters may be attracted to candidates who make a point of avoiding the median position on policies as a means of signaling character (Kartik and MacAfee 2007). Unfortunately for voters, there is

more to character than a willingness to take principled positions. As for political experience, it is an ambiguous guide to trustworthiness. It may signal integrity, but it may also prompt cynical conclusions about a politician's ability to survive, even game, the system. So while voters would likely prefer virtuous politicians, it is not easy to reliably identify them.

Selecting on the basis of competence is somewhat easier. Competent leaders are those who efficiently produce good results, specifically desired public goods. Although there may be greater opportunity for voters to observe performance in strictly policy terms, inference in this realm is also tricky because strong policy performance may have more to do with fortuitous circumstance than with the competence of leaders. Besides, when candidates present themselves for the first time there is no track record to judge. The institutional solution to this informational problem is the political party. Parties recruit candidates who can be portrayed as credible in policy terms, that is, capable of implementing policy priorities. The more difficult it is to project integrity, the more important it is to signal managerial competence.

From this perspective, whatever electors may prefer, parties prefer competence. The literature on labour markets and human capital strongly suggests that the best indicator of competence is education. Scores of papers have established a clear link between education and lifetime income (Card 1997), and education is a clear contributor to civic engagement, from the simple act of voting to dedicated activism. In the political realm, those with higher education have a distinct advantage in being better able to develop logical arguments, assemble and assess evidence, and make public presentations. Obviously not everyone possesses these skills in equal proportions, but university degrees signal capacity in this regard and invite the inference that education provides at least some politically relevant skills.

Arguably, there are some occupations that seem to embody similar skills. Lawyers, for example, have traditionally been drawn to political life presumably because the skills associated with legal training and practice lend themselves to the competent discharge of responsibilities. But lawyers are no longer the only

professionals with conceded credibility in politics. Administrators, professors, teachers, and business people are all, to varying degrees, obliged to absorb information, recognize salient points, and make public arguments. All of these occupations presume higher education and many of them presume advanced, if not graduate, degrees.

Political parties have two reasons for preferring well-educated candidates. First, even if there is a gap between real and perceived competence, education is still a reliable signal of ability and therefore a competitive advantage in elections, all other things being equal. Second, and very important in parliamentary systems, the political executive must be constructed from the legislative pool. While legislative tasks require empathy and the ability to reflect constituent positions, executive tasks require analytical skills that are more likely to be possessed by those with advanced education. In citizen-candidate models, the evaluation of these skills is left to candidates themselves. In a party-candidate model of political selection, this judgment is in the hands of the political leadership and it cannot be postponed, at least not entirely, until electoral outcomes are known. Political leaders can tolerate some degree of educational deficiency in the aggregate, but they must have a minimum number of candidates capable of assuming executive positions.

Plainly competence is not the only requirement of executive office. Loyalty, for example, is a quality that political leaders instinctively value and it may have little to do with competence. Similarly, the ability to generate political support is also a valuable qualification. Executive positions may go to those with modest educational credentials but with significant reservoirs of political capital. These are not qualities likely to be valued by voters, but political leaders can be forgiven for preferring colleagues whose principal assets are political and not managerial.

What does the research say about the education of political leaders? Arguing that education is a “a compelling indicator of a leader’s quality,” Besley and Reynal-Querol (2011, 552) show that in democracies political leaders are 20 percent more likely to be “highly educated,” meaning in possession of a university degree. This preference for educated leaders is sustained in the presence of controls for occupation and when accounting for transitions from autocracy to democracy or

visa-versa. Moreover, countries with highly educated leaders perform better in terms of economic growth (Besley, Montalvo, Reynal-Querol 2011; Jones and Olken 2005), inviting the conclusion educated leaders are more competent than others in making economic choices. And, in a slightly more daring interpretation, “more highly educated leaders are also better citizens and are more likely to operate in the broader public interest” (Besley, Montalvo, Reynal-Querol 2011, F206).

This interpretation, which comes directly from the citizen-candidate model, turns on the idea that educated leaders are likely to be public spirited, which helps account for their electoral success. Without disputing the preference of voters for well-intentioned leaders, the alternative interpretation is that political parties select leaders who are able to implement policies. It is not their integrity that matters, but their competence. The data we present below cannot adjudicate these interpretations, and they are not fundamentally at odds, but we can test for the role of education when it is political leaders, and not voters, that make the choice.

We can also determine whether additional compensation is likely to have much of an effect on the candidate pool that political parties assemble. A strong competence argument has accompanied almost all recommendations for increased compensation for politicians. Does compensation improve the quality of politicians from whom the political executive is composed? There are at least two reasons why the connection may be tenuous. First, the decision to continue in office, let alone begin a political career, is subject to multiple calculations only one of which involves compensation. From this perspective, the prospect that compensation will have a large, let alone determinative, effect is rather remote. For example, Deirmeier et. al. (2005, 370) conclude that the effects of congressional wages on the career decisions of sitting members of Congress are uniformly small, for all types of politicians.

The second reason to doubt a connection between compensation and competence is that poor quality candidates can be expected to have lower opportunity costs than good candidates and are therefore are more likely to seek office in the first place. If the alternative to a political career is something less glamorous or well remunerated, as it might be for weaker candidates, then politics is an attractive alternative (Casselli and Morelli 2004). This tendency is exacerbated

by increases in compensation since incumbents now have even less reason to move on. In Canada political columnists have made the same point, without the accompanying equations or evidence. Jeffrey Simpson (2008), for example, has argued that as the job of MP has become increasingly remunerative it is harder to give up voluntarily. The result, apparently, is a lengthening political career and a legislature allegedly stuffed with political drones.

2. Compensating Politicians in Canada

In the House of Commons, an arms-length process, formally recognized in legislation, determines Members' compensation. The *Parliament of Canada Act* sets out the compensation of MPs and provides for annual adjustments. From 1976 to 2001, the Act required that within 60 days after each general election a commission be appointed by the government to review parliamentarians' compensation. Composition of each commission included both current and former MPs.

In 1972, the compensation for MPs could be divided into three categories: basic salary (sessional indemnity and incidental tax-free expense allowance); salaries for additional responsibilities; and a pension plan. An MP's basic sessional indemnity was set at \$18,000 per year. In addition most members received an incidental tax-free expense allowance of \$8000 per year, with members from remote communities and the Northwest Territories receiving slightly more. The prime minister received an additional salary of \$25,000 on top of his basic indemnity and tax-free allowance.

While many Canadians believe that both MPs' pay and pensions seem excessive, the commissions that examine members' salaries and allowances have come to different conclusions. Despite the content of public debate on political compensation, which has overtime increasingly favored a reduction in the pay for MPs, these commissions have argued that federal politicians require more remuneration, not less. It was not until the late 1970s that the question of MPs' pay and allowances was examined systematically. Even then, the boundaries and purposes of the commissions were far from clear. None of the recommendations made by these panels could be accepted automatically; parliamentary approval was

required, and governments, particularly in the 1980s and 1990s, were reluctant to be seen endorsing substantial pay increases for MPs. As a result, the salaries received by MPs gradually fell out of sync with those commanded by senior public sector managers and comparable decision-makers in the private sector.

From 1976 to 2001, there have been seven commissions. All recommended increasing MPs' pay. Yet, despite the recurrence of their recommendations, most increases were rejected in the Canadian House of Commons¹. Similarly, each commission requested that the incidental tax-free expense allowance be either eliminated or reduced. The tax-free expense allowance was introduced in 1945 to reimburse MPs for expenses incurred while conducting parliamentary duties. At the time these expense accounts were justified on the grounds that they compensate MPs for expenses that are germane to their work such as maintaining residences at home and in Ottawa, travelling between these residences, and taking meals while away from home. While these justifications seems logical enough, in recent years, they have been subjected to increased public scrutiny and it has been suggested that tax-free allowances are designed by politicians to hide their true compensation from the public (Kelso 2011; Grubel 2012). This allegation stems from the fact that these allowances are not accountable, and because there is "no adjustment for MPs representing constituencies in or close to Ottawa, all of it tends to be treated by the public and media as a mere thinly-disguised extra income" (McQueen 1982). It has also been suggested that cabinet ministers may prefer a static compensation regime with generous expense allowances, since the lower the pay of backbenchers, the more enthusiastic MPs "will be to gain office of some kind, and hence the more amenable they will be to party leadership" (Hood 1992).

Inquiries into the compensation of MPs have faced two common problems. First, there is no market that establishes the productivity and correspondingly proper level of pay for legislators, as it might for executives and managers in the private sector. Second, the actual level of compensation is difficult to compare across jurisdictions because it includes pension and fringe benefits, the value of

¹ After the McLissac-Balcer commission (1980), the basic sessional indemnity was increased over a four year period. This was the last major increase to MPs' salaries until the 2001 reform.

which is different for individual MPs depending on their level of responsibility and length of service. For example, cabinet ministers receive larger pensions than MPs who have served the identical length of time. Pensions are available after six years of service and accrue at the rate of 3 percent annually to a maximum of 75 percent of the best five years of pay. For cabinet ministers, this is compensation much higher than ordinary members of parliament could expect.

The standard commission argument in favor of increasing the compensation of MPs suggests that Parliament is denigrated as an institution when MPs are underpaid. This argument turns on the idea that the House of Commons must be able to attract competent, qualified people, and that compensation plays a powerful role. The Hales commission (Commission 1979) proposed that improvements be made to compensation so that “finances do not continue as a deterrent to candidates seeking public office” (6). In 1994, the Lapointe commission echoed the same logic, worrying that lower pay combined with the costs of holding public office was preventing many quality candidates from seeking political office. The commission put the issue this way: “do we as citizens want to have the most capable people in Parliament governing the country, and if so, are we prepared to compensate them adequately so they can do the best job?” (Commission 1985, 3). Opponents to this line of reasoning such as opposition members are quick to point out that Parliament is filled with competent and devoted public servants, and each election continues to call forth many able individuals despite the remuneration received.

As Figure 1 illustrates, the concern of successive commissions is borne out by the data on the real basic salaries of MPs, that is salaries adjusted for inflation. These fell immediately following the 1984 election from \$131,099 to \$124,719 by the 1988 election, and continued to fall to \$113,659 until the 2001 reform. As the real salary of MPs decreased over this time period, politicians’ pay also dragged behind that of other occupation groups and the opportunity cost of running for office increased. In 1980, the basic sessional indemnity of MPs was 3 percent larger than the average salary of lawyers/notaries; 62 percent higher than that of accountants; and 63 percent larger than pharmacists. By 1996, however, this trend had reversed and the average salaries of lawyers were now 32 percent larger than

the \$64,400 basic sessional indemnity received by MPs. Pharmacists and accountants received average salaries that were 11 percent and 3 percent larger than Members of Parliament, respectively (Commission 1998 (2), 92-93).

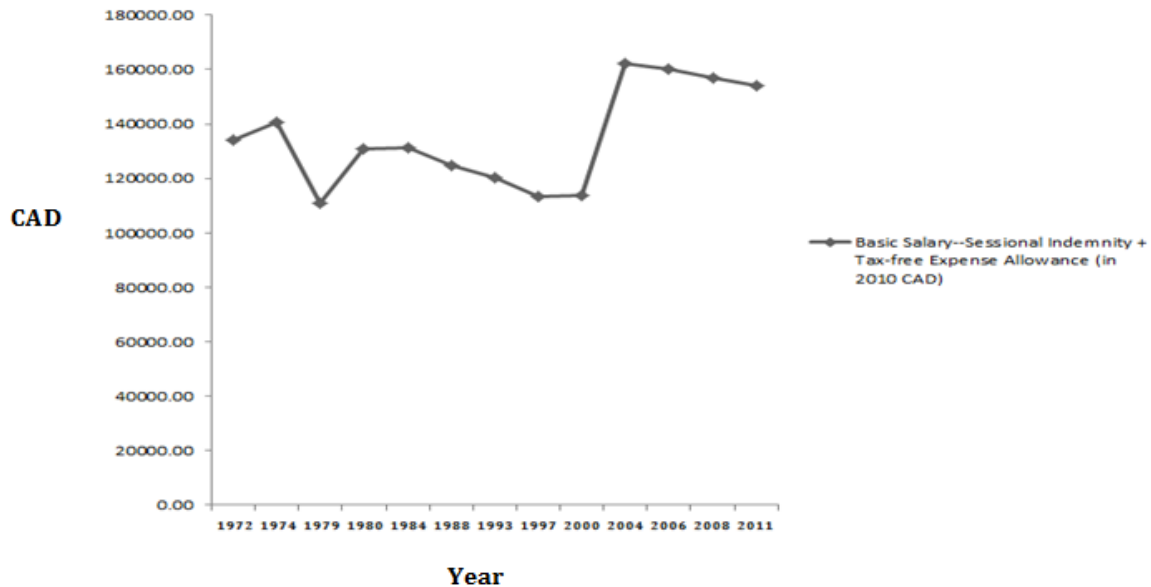


Figure 1: Change in Basic Salary over time

In 1998, the Blais commission conducted a comparative review of compensation regimes in ten countries. The list of countries included most of the G7 members (not Italy), as well as Norway, New Zealand, and Sweden. Their comparison of federal legislators showed that Canadian MPs' remuneration ranked ninth among the ten countries (Commission 1998 (1), 17). Similarly, Table 1 shows the average nominal rate of change in MPs' pay. The column titled 'Members of Parliament' shows the nominal rate of growth in members' salaries from 1991 to 2000, whilst the second and third columns indicated the change in CPI and Average Industrial Wage over the same time period. For Canadian MPs, increases in compensation have been lower for federal Parliamentarians than for other Canadians. Most striking, are the comparisons to the private sector. The table shows that between 1991 and 2001 the overall cumulative wage increase in Canada

was 31.9 percent. Conversely, the salary increase for MPs over this time period was only 6.0 percent. While the average annual increase for Canadians was 2.81 percent, MPs experienced an annual increase of only 0.58 percent.

Table 1: Compensation Indices: 1991-2000²

Year	Members of Parliament	Consumer Price Index	Average Industrial Wage	General Wage Settlements		Conference Board Survey
				Public Sector	Private Sector	
1991	0%	5.6%	4.6%	3.4%	4.3%	5.0%
1992	0%	1.5%	3.5%	2.0%	2.5%	3.5%
1993	0%	1.8%	1.8%	0.6%	0.8%	2.5%
1994	0%	0.2%	1.8%	0.0%	1.2%	2.0%
1995	0%	2.2%	1.0%	0.7%	1.4%	2.1%
1996	0%	1.6%	2.1%	0.5%	1.8%	2.5%
1997	0%	1.6%	2.1%	1.1%	1.8%	3.0%
1998	1.9%	0.9%	1.4%	1.6%	1.8%	3.2%
1999	2.0%	1.7%	0.7%	1.9%	2.6%	2.0%
2000	1.9%	2.7%	2.5%	2.5%	2.3%	2.3%

In January 2000, the basic sessional indemnity for an MP stood at \$69,200, significantly lower than the six-figure sums typically paid to public sector chief executives and senior managers. In 2001, Parliament agreed to abolish the tax-free expense allowance and add an equivalent taxable amount of \$40,300 to the basic sessional indemnity. In addition, MPs received a 20 percent increase in their

² Data is according to the Conference Board of Canada's annual survey of all sectors of the economy and was retrieved from the 2001 Commission to Review Allowances of Parliamentarians.

nominal salary. The new regime represented a distinct departure from previous practice in terms of how salaries would be determined in the future. Beginning in 2001, MP salaries would be tied to the salaries of judges serving on the Supreme Court of Canada. Specifically, the base rate of an MP's salary was set at 50 percent of the salary of the Chief Justice. Finally, in 2005, Bill C-30, An Act to Amend the Parliament of Canada Act and the Salaries Act, removed the provision linking increases in compensation to increases for federal judges, and pegged them instead to the federal government's annual average wage settlement index.

Much has changed over the past forty years in how we pay federal legislators, but most of that change came at a single point in time—2001. The basic sessional indemnity of MPs is now \$157,731 per year. The additional salary over and above the basic sessional indemnity received by the Prime Minister Stephen Harper is \$157,731, in other words twice the amount of ordinary MPs. Cabinet ministers and the Speaker of the House receive an additional salary of \$75,516. The number of paid parliamentary positions has gradually increased over time, as other MPs, such as secretaries of state, party leaders, whips, deputy speakers, caucus chairs, and chairs and vice-chairs of standing committees receive additional remuneration.

If, as the academic literature and successive commissions argue, compensation has an effect on competence, we should notice a decline in relative educational attainment until 2001, when the compensation regime improved significantly. Figure 1 provides a dramatic indication of the change introduced in 2000. Has it improved the quality of politicians? Let's begin to answer that question by asking whether competent politicians are valued in the first place.

3. Do Prime Ministers Prefer Educated and Experienced MPs?

Political selection, we have argued, is a two stage process in parliamentary democracies, and at both stages party leaders exercise control. Stage one, which covers nomination and the party label, requires leader approval. Stage two, the focus of our concern, involves selection to the political executive. From among those who have won election under the party banner, a fraction is chosen to serve in cabinet or in other positions of political authority.

3.1 Comparing Caucus and Cabinet

The connection between competence and cabinet appointments begins with a cursory examination of the difference between caucuses and cabinets.³ As noted earlier, executive tasks often require analytical skills that are more likely to be possessed by those with university education or prior sub-national experience. If this is true, we can expect that cabinet members are more likely to have completed university or served in either a local or provincial government.

Our dataset records the university education and sub-national government experience of every MP for the period 1993 to 2011.⁴ MPs elected in by-elections are included as members of the Parliament to which they were elected.

In 1993, Prime Minister Chrétien began his term with a substantial majority of 177 Liberal MPs and from these appointed 23 members to cabinet. By 1997 his majority was reduced and from a caucus of 155 MPs he appointed 28 MPs. In his third term as prime minister, Chrétien appointed 28 MPs to cabinet. In total, Chrétien made 67 discrete ministerial appointments.

³ For our purposes, “caucus” consists of all MPs from the governing party who are not members of cabinet.

⁴ All data on Canadian MPs come from the Parliament of Canada website: <http://www.parl.gc.ca/Default.aspx?Language=E>. The dataset contains detailed information on the following political and demographic characteristics: self-declared demographics (age, gender, level of education, and previous occupation); political experience (this includes being a member of government at the local or provincial level); current appointments in the government or parliament (whether or not a politician chairs a committee, and whether or not she is, or has had, a parliamentary function); political party affiliation; and constituency. The dataset also contains yearly salary information in constant dollars.

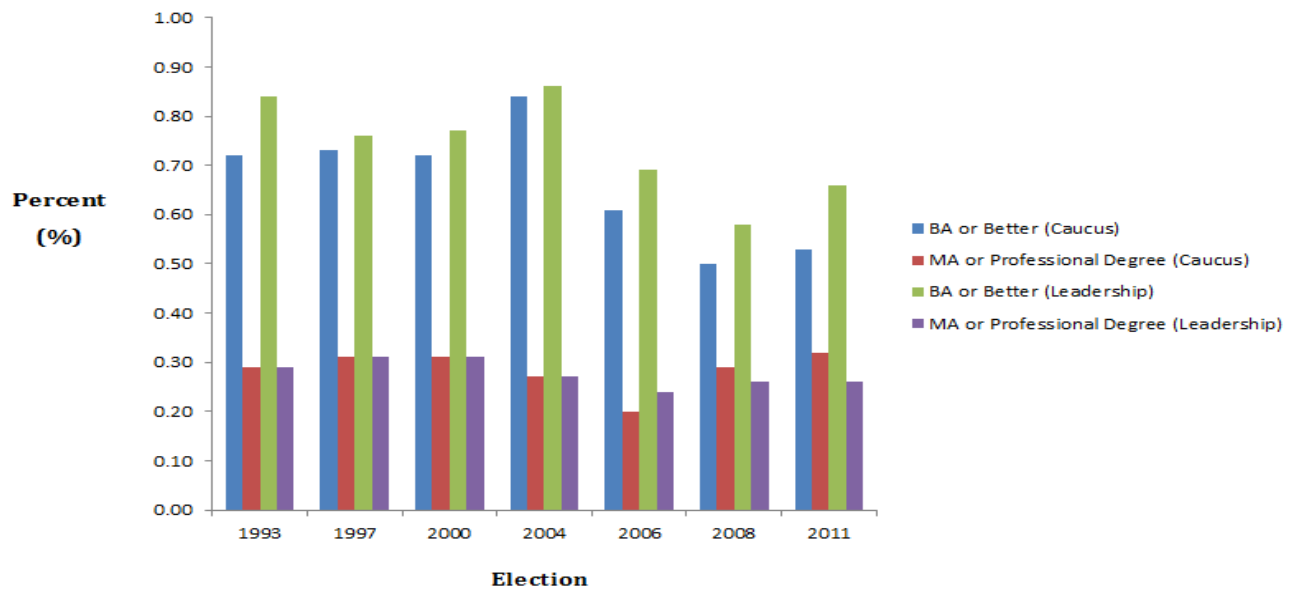


Figure 2: Educational Profile of Government MPs

Figure 2 shows that the educational profiles of both Chrétien’s cabinet and caucus changed very little between governments. In 1993, 72 percent of Liberal MPs had a bachelor degree or better, while 32 percent had earned a graduate degree. In 2000 the proportions were exactly the same. Of the 67 MPs appointed to leadership positions by Chretien, just over 79 percent had completed a university degree. While this is consistent with our expectation that cabinet members are more likely to be more highly educated than backbenchers, the main message is that Liberal governments have a relatively high proportion of people who have completed university. When the Martin government came to power in 2004, over 80 percent of MPs were in this category.

Mr. Harper formed his first government, a minority, in 2006 and appointed 26 cabinet members from a caucus of 124 Conservatives. In the 2008 election his minority government was increased to 143 MPs and he expanded the cabinet to 38. In May 2011, the Conservatives achieved a majority government, their caucus increased to 166 MPs and he appointed 39 members to cabinet. In contrast to the educational profile of the Liberal caucus, fewer than 60 percent of Conservatives held bachelors degrees or better during all three of Mr. Harper’s governments.

Ministers similarly had a lower level of academic achievement in the Harper period than in the earlier Liberal governments, but more ministers could claim undergraduate degrees or better than members of the Conservative caucus.

In terms of experience, just over one third of Liberal MPs from 1993 to 2004 had some form of sub-national pre-parliamentary political experience. A few MPs, less than 8 percent, had served in provincial legislatures, while many more, 28 percent had earned their political stripes at the municipal level. Overall, Liberal MPs with political experience could claim an average of 2.67 years in 1993, 2.70 years in 1997, and 2.91 years in 2000. Figure 3 presents the experience of government party MPs appointed to cabinet. As the graphs suggests, Liberal cabinet members were considerably less experienced politically than members of caucus.

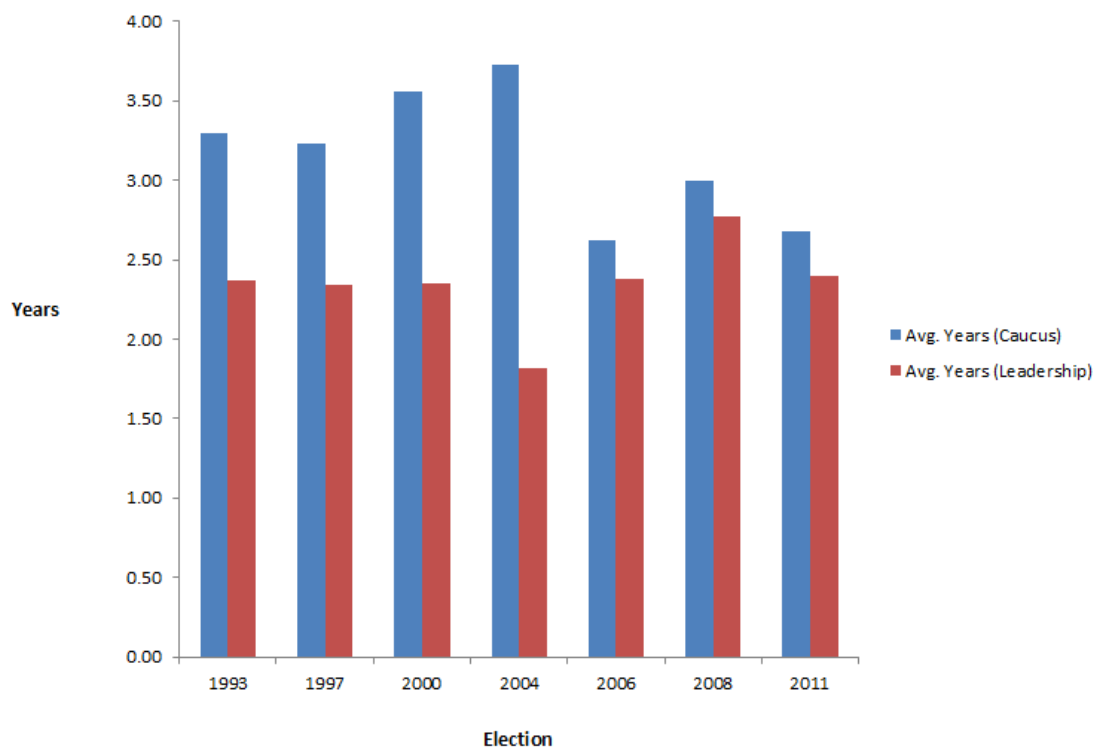


Figure 3: Average Years of Ex Ante Government Experience

The pre-parliamentary political experience of the Conservative caucus was relatively low, in terms of years, compared to the previous Liberal governments. In all cases, however, MPs had more experience than their cabinet colleagues. Fewer

than 31 percent of all Conservative MPs during the period 2006 to 2011 had sub-national experience: less than 10 percent of these members having served in provincial legislatures, while 23 percent serving at the municipal level. These findings reinforce the general consensus that previous government experience plays a small role in preparation of federal politicians, including (or perhaps especially) ministers.

3.2 Liberal and Conservative Cabinets are Different

The answer to the question—do Prime Ministers prefer highly educated MPs in selecting for cabinet?—is yes for both Conservatives and Liberals. But because MPs who have earned at least bachelors degrees dominate the Liberal caucuses in recent years, it is hard for Prime Ministers to avoid them. With almost 72 percent of the Liberal caucus between 1993 and 2004 holding a bachelors degree it is perhaps not surprising that regression results, which control for other variables, indicate no advantage for degree holding Liberal MPs.

Table 2 reports the results of probit regressions with a binary dependent variable that indicates whether Liberal MPs have, or have not, reached cabinet. In the first regression, when only the primary variables of interest are used as controls, ex-ante government experience has a very small negative effect on the probability of becoming a minister. Higher education, on the other hand, appears to be advantageous. Anyone holding a bachelor's degree or higher is 9 percent more likely to be in a ministerial position (the mfx [marginal effects calculated at the means] result can be interpreted in terms of percentage points), whereas those who have at least a master's degree are not significantly different from MPs that have a bachelor's degree.

Table 2: Education, Experience and Liberal Ministers: 1997-2006

Liberal Ministerial Appointments						
	Primary		Demog. Controls		Occ. Controls	
	probit	mfx	probit	mfx	probit	mfx
Ex Ante Govt Exp	-0.0295** (0.0119) [0.013]	-0.0115** (0.0046) [0.013]	-0.0149 (0.0121) [0.219]	-0.0058 (0.0047) [0.218]	-0.0137 (0.0122) [0.262]	-0.0054 (0.0048) [0.261]
Bachelors+	0.2383* (0.1270) [0.061]	0.0917* (0.0479) [0.056]	0.1507 (0.1298) [0.246]	0.0584 (0.0498) [0.241]	0.1022 (0.1388) [0.461]	0.0398 (0.0536) [0.458]
Masters+	-0.0236 (0.1162) [0.839]	-0.0092 (0.0453) [0.839]	0.1121 (0.1258) [0.373]	0.0440 (0.0495) [0.374]	0.1478 (0.1291) [0.252]	0.0581 (0.0509) [0.254]
Age			-0.0871* (0.0459) [0.058]	-0.0341* (0.0180) [0.058]	-0.0827* (0.0465) [0.075]	-0.0323* (0.0182) [0.076]
Age^2			0.0005 (0.0005) [0.287]	0.0002 (0.0002) [0.288]	0.0005 (0.0005) [0.353]	0.0002 (0.0002) [0.354]
Female			0.0446 (0.1317) [0.735]	0.0175 (0.0518) [0.736]	0.0540 (0.1330) [0.685]	0.0212 (0.0523) [0.686]
Farmer					0.0662 (0.2425) [0.785]	0.0260 (0.0958) [0.786]
Lawyer					0.1281 (0.1476) [0.386]	0.0504 (0.0585) [0.388]
Admin					0.2585 (0.2149) [0.229]	0.1025 (0.0855) [0.231]
Observations	646	646	641	641	641	641
Pseudo R-squared	0.018	0.018	0.064	0.064	0.066	0.066

Stars Significance: * p<0.10, ** p<0.05, *** p<0.01
(std. error), [p-value]

Once demographic and occupational controls are added, however, neither having a bachelors degree nor a masters degree improves one's chances of joining a Liberal ministry. The absence of a promotion dividend from a masters degree is somewhat surprising since, in this case, only 30 percent of Liberals are in that category and so the possibilities of discriminating on this basis are much higher. Part of the reason for the absence of any higher education advantage among Liberal

MPs lies in the educational background of parliamentary secretaries. Their educational backgrounds are almost the same as ministers. Examining them separately (not shown) allows us to locate at least a small educational payoff. Among Liberal MPs who were not members of cabinet, the likelihood of being selected as a parliamentary secretary was 12% higher if you have at least a bachelors degree.

Equally important, none of the other variables we included in the various models emerge as critical in distinguishing Liberal caucus members from one another for purposes of achieving a cabinet position. Previous political experience is initially a small negative influence, but even that modest effect disappears with the inclusion of demographic and occupational controls. This finding adds to our discussion above and to what earlier studies that have documented (and occasionally lamented) namely that MPs have relatively little previous political experience. Equally important, for the Liberals, and (as we will see) the Conservatives, what little experience they bring to the job is not rewarded post election. We are left with the very minor effect of age: the older you are the less likely you are to have reached a ministerial position in the Liberal governments we have examined.

The overall absence of effects is a testament first, to the educational homogeneity of Liberal caucuses, and second, to the influence of other variables that are unmeasured in these regressions. The most prominent among them, of course, are the legendary regional considerations that govern the composition of Canadian cabinets (Heard 1991; Punnett 1976; Matheson 1974). These latter suggest that personal background aside, for purposes of promotion to a leadership position it is better to be a sole survivor in a challenging electoral region, than to be elected along with a crowd in a party stronghold. On the other hand, the “hazard rate” for these “isolated” ministers, that is the likelihood that at any point in time they will be dropped from cabinet, is actually higher than it is for other ministers (Kerby 2009, 604). In addition, there are personal political variables that Prime Ministers cannot avoid acknowledging either positively or negatively. As Matthew Kerby (2009, 602) notes, these include a tendency to reward leadership contenders and honour the

electoral work of politically talented MPs. It appears that for Liberals these kinds of political variables are allowed more scope because educational (and perhaps occupational) prerequisites are relatively easy to meet.

The Conservative results (Table 3) are quite different. With only slightly more than 50 percent of Conservative members holding a bachelors degree, Prime Minister Harper could be more selective on education grounds if he chose to be. The equivalent probit regressions for the Conservative governments formed in 2006, 2008 and 2011 show that while the Prime Minister did have a slight (but statistically insignificant) preference for MPs with bachelors degrees, those with masters degrees stood out more prominently. A masters degree improved the prospects of cabinet entry by 15 percentage points, other things being equal. Interestingly, selection to parliamentary secretary roles was unaffected by education. Conservative parliamentary secretaries, unlike their Liberal counterparts, resemble non-leaders not ministers. The chance that a Conservative parliamentary secretary would hold a masters degree or better was slightly lower than the probability that another MP (not a minister) had achieved the same education level.

As in the Liberal results, *ex ante* political experience was of no help in achieving a cabinet position. In the case of parliamentary secretaries (not shown), experience was a positive detriment: in other words, if your goal was to become a parliamentary secretary (perhaps as a stepping stone), it was best to have very little political experience. At the average, one more year of government experience actually decreased the chances of becoming a parliamentary secretary by 2 percent. This finding suggests that the Conservatives may have chosen to privilege their relatively inexperienced, but promising, backbenchers by engineering the experience that they lacked on arrival.

Of interest from an educational perspective, cabinet construction in the Harper governments was partial to lawyers. With relatively few to choose from (only 18 percent of caucus members were lawyers), the Prime Minister clearly preferred to augment cabinet's legal capacity. As Table 3 shows, lawyers were 32 percentage points more likely to reach cabinet than other members of the caucus.

Those with administrative backgrounds were also at a significant advantage. This variable barely reaches statistical significance, not because the effect is not real but because there are relatively few “administrators” in the caucus to begin with. These two findings reinforce the idea that having a basic university education was not particularly important, but having an advanced degree or a particular set of skills associated with occupations that demand higher education, is an advantage. Education, in short, must be of a particular type to confer an advantage.

Table 3: Education, Experience and Conservative Ministers 2006-2011

	Conservative Ministerial Appointments					
	Primary		Demog. Controls		Occ. Controls	
	probit	mf	probit	mf	probit	mf
Ex Ante Govt Exp	-0.0001 (0.0124) [0.995]	-0.0000 (0.0043) [0.995]	0.0058 (0.0132) [0.661]	0.0020 (0.0046) [0.661]	0.0006 (0.0137) [0.964]	0.0002 (0.0047) [0.964]
Bachelors+	0.2289 (0.1417) [0.106]	0.0788 (0.0482) [0.102]	0.2284 (0.1452) [0.116]	0.0787 (0.0494) [0.111]	-0.0478 (0.1619) [0.768]	-0.0165 (0.0561) [0.768]
Masters+	0.2985* (0.1753) [0.089]	0.1083 (0.0659) [0.100]	0.3105* (0.1765) [0.078]	0.1130* (0.0665) [0.089]	0.4272** (0.1876) [0.023]	0.1564** (0.0715) [0.029]
Age			-0.0583 (0.0500) [0.244]	-0.0203 (0.0174) [0.244]	-0.0623 (0.0516) [0.227]	-0.0215 (0.0178) [0.228]
Age^2			0.0005 (0.0006) [0.354]	0.0002 (0.0002) [0.354]	0.0006 (0.0006) [0.315]	0.0002 (0.0002) [0.316]
Female			0.3957** (0.1863) [0.034]	0.1462** (0.0718) [0.042]	0.3742* (0.1913) [0.050]	0.1371* (0.0732) [0.061]
Farmer					-0.0034 (0.2472) [0.989]	-0.0012 (0.0852) [0.989]
Lawyer					0.8505*** (0.1973) [0.000]	0.3206*** (0.0749) [0.000]
Admin					0.6128* (0.3307) [0.064]	0.2333* (0.1310) [0.075]
Observations	443	443	438	438	438	438
Pseudo R-squared	0.017	0.017	0.032	0.032	0.073	0.073

Stars Significance: * p<0.10, ** p<0.05, *** p<0.01

(std. error), [p-value]

Finally, these results suggest that being female was an advantage in becoming a minister in Conservative but not Liberal governments. Note that Mr. Harper had slightly fewer women to draw on than his Liberal predecessors (Liberal caucuses averaged 20 percent female; Conservative caucuses 14 percent). The modest advantage that women had in Conservative governments increases when parliamentary secretaries are added to the Conservative leadership coterie (not shown). The probability of becoming either a minister or a parliamentary secretary, improved by 18 percentage points for women in the three Conservative governments under consideration.

4. Are Post-Reform Politicians Qualitatively Different?

We have seen that the parliamentary commissions struck to assess MPs' compensation have argued strongly that improving compensation will enhance the chances of drawing qualified candidates into public life. We have argued that competence can be measured in educational terms since education is clearly valued in the selection of parliamentary leaders. At the same time, it is widely acknowledged that candidate motivation is complex and unlikely to respond to a single stimulus. While it is conventional to assume that candidates will respond only to the benefits of office construed in terms of gratification from quantitative consumption, candidates are also interested in policy, for example, and evidence shows that some will go so far as to defy voter preferences if they fall too far from the candidate's preferred position (Wittman 1983). Similarly, there is no reason to dismiss the possibility that would-be politicians also seek the psychic rewards of public service. So while it is often assumed that the spoils of office motivate candidates, the journey to office can itself be a motivation (Robb 2009). In short, the material benefits of additional pay may be marginally important to some groups of politicians, but for others, perhaps many others, policy interests and the pleasures of the political process may be far more important.

Even assuming that would-be candidates are consumed with maximizing their expected utility expressed in consumption terms, the calculations regarding the future benefits of political life are complicated and there are significant risks.

Election to the House of Commons does not mean automatic elevation to a position of influence. If one's party is not in government, additional tangible rewards are few and prospective rewards in doubt. Membership in the governing caucus does provide access to power positions, but as we have seen *ex ante* experience, a cost in itself, is of no help in acquiring a leadership position in Canada. Education does matter, but it is no guarantee, especially when stacked against the requirements of achieving regional (and even inter-regional) balance. It is not possible, therefore, to easily improve one's chances of promotion: exogenous factors are at least as important as personal effort. Finally, politicians often struggle post-career. While members of congress generally find their skills can be put to use in Washington, former cabinet ministers in parliamentary systems face an uneven and sometimes inhospitable labour market (Eggers and Hainmueller 2009). So while an increase in compensation may lure the better educated whose prospects in the labour market are generally positive, the risks of political life are such that those whose employment prospects are less optimistic may be more likely to respond to the stimulus of higher pay (Casseli and Morelli 2004).

All of these considerations suggest that we exercise caution with respect to what can be expected from an increase in compensation. If compensation is to have any effect it is likely to have an effect on sub-populations rather than on every politician. Identifying these sub-populations is not easy, but consider the possibility that both women and those who are younger may find increased compensation a powerful inducement. In both cases the labour market has proven to be less congenial to their skills when compared to older male workers. During the 1980s and 1990s, for example, the proportion of total employment accounted for by the young (those under 30) declined in all OECD countries (Blanchflower and Freeman 2000, 23). And while those with higher education are better equipped for the labour market, even a short political career that pays well may appear an attractive alternative to more conventional employment opportunities.

The possibility that women might be drawn to politics at the right salary level is even more plausible. The well documented gender gap in wages has been traced to a host of variables associated with the human capital model, namely the

tendency of women to work in lower paid industries or occupations and to devote a considerable amount of their working lives to unremunerated child care. Over the past 30 years this gender pay gap has narrowed considerably, and women have been drawn into employment that was once the reserve of men (Blau and Kahn 2000, 79). This is particularly the case for white collar and service occupations, including politics. In political systems where wage discrimination is limited by the absence of seniority provisions and performance pay, women may be drawn to political work on the grounds that they stand a better chance of being recognized for their skills and their education. In compensation terms, the political realm is less competitive in the sense that it requires no bargaining, a situation which women find more agreeable than men (Croson and Gneezy 2009, 466). Women may therefore be more responsive to compensation signals. That does not mean there is no discrimination in the political realm, only that wage discrimination is more difficult and higher compensation cannot be denied on grounds of work experience, for example.

Shifts in recruitment patterns due to changes in compensation are likely to be long-term and modest, if only because, with the exception of the major increase in 2000, compensation itself has changed so little, as we have pointed out. On the other hand, the 2000 increase was significant and as such it does afford us an opportunity to observe a natural experiment in which a policy intervention creates two groups of individuals: those to whom new rules apply and those subject to previous rules. In this kind of “experiment”, the first group is the “treatment” group, the second the “control” group. In the case at hand, those politicians who entered Parliament following the increase in compensation (labeled Entrants) are contrasted with those who were elected before the compensation change (Incumbents).⁵ Contrasts such as this are not straightforward. To estimate the effect of compensation on the composition of the House of Commons, and in particular on

⁵ The increase in compensation took place in 2001, shortly after the 37th Parliament convened. Our treatment group are Entrants elected in 2000.

the level of education of new and veteran members, requires a methodology that permits controlled comparisons. We begin by sketching out the methodology and then report the findings.

4.1. Difference -in -differences (DiD) methodology

A naïve approach to comparing the education of MPs before and after a policy intervention involves a simple test of means, where the average educational attainment in the pre-reform stage is compared to the post-reform average. The assumption here is that without the salary reform in 2000 all agents would be comparable over time. This simple comparison may result in a perceptible and statistically significant difference, but the assumption that all else is equal is difficult to sustain.

The DiD methodology is based on the comparison of four groups, three of which have not received the treatment or did not receive the treatment in time to change decisions about how much education to obtain (Meyer 1995; Lechner 2011). The “treatment” in this case is the increase in salary. Group 1 consists of Entrants elected either in 1993, 1997, or the by-elections preceding 2000. Group 2 consists of Incumbents during the same period, that is, those who were running to retain their seats in these elections. Group 3 consists of Incumbents who were elected again in either 2000 or 2004, or in by elections following 2000. Group 4 are the Entrants post-2000; they are the only ones who are subject to the “treatment” in the sense that they are opting for political office as a new compensation regime is being introduced. The question is whether their education influences that decision. In the case of the other three groups, including the post-2000 Incumbents, their education is already established prior to the treatment. Because all four groups may differ from one another, apart from their relationship to the compensation reform, a DiD set-up is required to accurately estimate whether and to whom the compensation changes matter.

DiD allows the assessment of two sets of differences simultaneously. The first is the difference in the average education of Incumbent and Entrant MPs before versus after the reform. As a regression, this first effect would resemble:

$$Y_i = \beta_0 + \beta_1 \tau_i + \varepsilon_i \quad (1)$$

Where the dependent variable, Y_i , is the Education Dummy, $Y_i \in \{1=\text{Bachelors+}, 0=\text{Otherwise}\}$ for each type of person i , where $i=\text{Entrant or Incumbent}$. The time dummy, τ_i , takes the form: 1=After and including 2000, 0=Before 2000. Lastly ε_i is the error term assumed to be independent and identically distributed (iid). The first effect is the change in the average education due to the salary increase, holding the type of individuals constant, that is, only all Entrants or only all Incumbents. A positive β_1 value for Entrants but not Incumbents would invite the conclusion that the reform drew a more educated population to Parliament.

There is, however, a second difference that needs to be taken into account, namely the difference between Incumbents and Entrants. That comparison is captured in the following regression equation:

$$Y_t = \beta_0 + \beta_1 \gamma_t + \varepsilon_t \quad (2)$$

Where the dependent variable, Y_t , is the Education Dummy, $Y_t \in \{1=\text{Bachelors+}, 0=\text{Otherwise}\}$ for each time period, t , where $t = \text{Before Reform or After Reform}$. The group dummy, γ_t , takes the form: 1=Entrant, 0=Incumbent, for each t . Lastly ε_t is the error term and is assumed to be iid. This second effect compares the average education in the two types of individuals (Entrants and Incumbents) only after the salary increase, that is, holding the time period constant. Again, a positive β_1 value when examining the after the reform period would invite the interpretation that the Entrants have a higher average education level than the Incumbents.

Estimating both of these equations renders the sample much smaller in each case by virtue of dividing it between Incumbents and Entrants or between time periods, Before and After the Reform. More important, this set up does not permit a direct comparison of Entrants and Incumbents both before and after the reform, obliging the assumption that these groups are identical in all respects other than the introduction of the compensation reform. Unfortunately, between the previous general election in 1997 and the election of 2004 many changes could have occurred that have a differential effect on either Entrants or Incumbents, or both. For example, it may be the case that before the reform, Entrants had a higher (or lower)

average education level than the Incumbents; without a DiD model it is impossible to directly compare these groups between time periods.

Using the DiD estimation approach, which is essentially a combination of the above two equations, allows us to estimate the effect of the salary increase on the average education level while simultaneously controlling for the type of individual and the time period. In other words, we are able to compare the average education of Entrants and Incumbents while controlling for time and compare the average education in time periods while controlling for the type of individuals. Furthermore, DiD allows us to isolate Group 4, Entrants after the reform, and compare them to everyone else.

To undertake a DiD estimation, three things need to be identified:

- i. The treatment: The salary reform in 2001.
- ii. The period during which the effect of treatment is observed: before the reform, up to 1999, and after the reform, 2000+.
- iii. The treatment/control group: The treatment group is comprised of the individuals who will be affected by the treatment. In this case the individuals whose education would have been effected by the reform are the post-reform Entrants, thus they are the treatment group. The Incumbents, whose salary was also affected by the reform, but their education level was not, constitute the control group.

The DiD analysis consists of running a robust probit regression on the following equation:

$$Y_{it} = \beta_0 + \beta_1\gamma_t + \beta_2\tau_i + \beta_3(\gamma_t \cdot \tau_i) + \beta_4C_{it} + \varepsilon_{it} \quad (3)$$

Where the dependent variable, Y_{it} is a dummy variable:

$$Y_{it} = \begin{cases} 1 & \text{if possesses at least a bachelor's degree} \\ 0 & \text{otherwise} \end{cases}$$

γ_t is the group dummy variable:

$$\gamma_t = \begin{cases} 1 & \text{if an entrant} \\ 0 & \text{if an incumbent} \end{cases}$$

τ_i is the time dummy variable:

$$\tau_i = \begin{cases} 1 & \text{if year} \geq 2000 \\ 0 & \text{if year} < 2000 \end{cases}$$

The main variable of interest is the interaction variable, $(\gamma_t \cdot \tau_i)$:

$$(\tau_i \cdot \gamma_t) = \begin{cases} 1 & \text{if an observation is an entrant when year} \geq 2000 \\ 0 & \text{otherwise} \end{cases}$$

In keeping with the argument regarding sub-groups, we include additional control variables, represented by C_{it} to capture, among other things, the role that age plays in the likelihood of holding at least a bachelor's degree, and the effect of gender. We assume that older MPs are less likely to have completed university and we expect educated women to be differentially affected by the compensation reform. In the post-reform period, the women elected should be more likely to hold a bachelor's degree than in the previous time period, all other things being equal. Lastly ε_i is the error term and is assumed to be iid.

In this DiD analysis the interaction term permits a direct assessment of the difference between an Entrant and an Incumbent within the different time periods. As such it is the most relevant and powerful parameter in the analysis. If the compensation reform has had the effect of inducing better-educated MPs, the coefficient on the interaction term will be positive, suggesting that because of the reform the average education level of the entrants increased.

4.2 *Interpreting the results*

Estimating the model represented by Equation 1 produces discouraging results (not shown). There is no appreciable difference between the education level

of Entrants before and after the 2000 reform. Similarly, Incumbents before and after 2000 have the same education levels. Equation 2 estimates (not shown) suggest a difference between Entrants and Incumbents before, but not after the reform.

Before compensation levels were increased, Incumbents had a greater probability of holding a bachelors degree or better. Specifically, Entrants elected during the period 1993-2000 were 14 percent less likely than Incumbents to have at least a bachelors degree, but after the reform there was no significant difference between Entrants and Incumbents. Conceivably the compensation reform improved the average education of Entrants, but only to the point that it equaled that of Incumbents.

Table 4 reports the results of the DiD analysis. The first column, which contains only the basic results, without controls, confirms the single difference findings and, importantly, includes the interaction term and hence the test for Group 4, i.e. Entrants after the compensation reform. These MPs differ from all others (Groups 1 to 3 combined) in having a 15 percent greater likelihood of having at least a bachelors degree. This is a statistically significant result at the .05 level and can be read as indicating that the reform improved the average education level of new MPs.

Note, however, that the sign on the Entrant variable is negative: Entrants are 14 percent less likely to have at least a bachelors degree. This finding confirms the result from equation 2, namely that before the compensation reform Entrants had a lower level of educational attainment than Incumbents. Of the relatively large number of Entrants (90) in 1997, only 54 percent held a bachelors degree or better. The situation changed significantly post-reform. A smaller number of Entrants (59) in 2000 had a significantly higher education level: 68 percent now held bachelors degrees or more. The pre-reform difference between Entrants and Incumbents disappeared and Entrants, post-reform, actually were slightly more likely than Incumbents to have a university degree

The controls supply important information about the effects of other variables on education levels. Notice first that once the controls are included, the overall negative effect of being an Entrant disappears, but the interaction is still significant and positive. The introduction of controls does not vitiate the basic findings; they have an effect, however. The average age of an MP in this period is 45

years and the probit results suggest that each year of age reduces the likelihood that an MP will have a bachelors degree by 4 percent.⁶ In addition, party matters. Being a Liberal increases the probability of having a bachelors degree by 14 percent, a finding that is robust across a variety of specifications.

Table 4: Are Post-Reform Entrants Better Educated?
 Education = Bachelors Degree or Better
 Pre-Reform Period = 1997-1999 (1 general election; 2 by-elections)
 Post-Reform Period = 2000-2003 (1 general election; 1 by-election)

	Difference-in-Difference 1997-2003							
	DiD		DiD with controls		Female		Male	
	probit	mfX	probit	mfX	probit	mfX	probit	mfX
Reform	-0.0919 (0.1206) [0.446]	-0.0339 (0.0445) [0.446]	-0.0977 (0.1232) [0.428]	-0.0358 (0.0451) [0.427]	-0.5518 (0.3503) [0.115]	-0.1773 (0.1103) [0.108]	-0.0511 (0.1338) [0.703]	-0.0190 (0.0497) [0.703]
Entrant	-0.374** (0.1596) [0.019]	-0.142** (0.0617) [0.021]	-0.2363 (0.1668) [0.157]	-0.0885 (0.0636) [0.164]	-1.0220** (0.4439) [0.021]	-0.3593** (0.1576) [0.023]	-0.1319 (0.1852) [0.476]	-0.0496 (0.0704) [0.481]
Reform*Entrant	0.4422* (0.2468) [0.073]	0.1491** (0.0740) [0.044]	0.4312* (0.2517) [0.087]	0.1443* (0.0750) [0.054]	1.4821** (0.6378) [0.020]	0.2807*** (0.0641) [0.000]	0.3111 (0.2781) [0.263]	0.1092 (0.0909) [0.230]
Age			-0.1071** (0.0451) [0.018]	-0.0393** (0.0165) [0.017]	-0.1681 (0.1468) [0.252]	-0.0544 (0.0476) [0.253]	-0.102** (0.0476) [0.031]	-0.038** (0.0177) [0.031]
Age^2			0.0010* (0.0005) [0.052]	0.0004* (0.0002) [0.052]	0.0016 (0.0016) [0.312]	0.0005 (0.0005) [0.312]	0.0009* (0.0005) [0.079]	0.0003* (0.0002) [0.079]
Liberal			0.4031*** (0.1123) [0.000]	0.1478*** (0.0409) [0.000]	1.2103*** (0.2997) [0.000]	0.3982*** (0.0953) [0.000]	0.2898** (0.1218) [0.017]	0.1076** (0.0451) [0.017]
NDP			-0.2145 (0.2234) [0.337]	-0.0813 (0.0869) [0.349]	0.4039 (0.4816) [0.402]	0.1166 (0.1215) [0.337]	-0.2086 (0.2625) [0.427]	-0.0799 (0.1028) [0.437]
Female			0.2416* (0.1380) [0.080]	0.0855* (0.0469) [0.068]				
Observations	617	617	614	614	112	112	502	502
Pseudo R-squared	0.007	0.007	0.044	0.044	0.179	0.179	0.031	0.031

Stars Significance: * p<0.10, ** p<0.05, *** p<0.01 (std.error) [p-value]

⁶ Because this variable is continuous, the probit estimate becomes increasingly unreliable the greater the distance from the mean age of the sample. The Age2 variable is present to correct for the concave shape of the age effect.

The Female variable in the second specification (DiD with controls) provides a hint that men and women may differ in the levels of education they bring to the job of MP, regardless of whether they are Entrants or Incumbents and regardless of time period. Specifically, women are slightly more likely to have a university degree. However, the main effect of gender lies in the differential effects of compensation changes. We have already speculated that women may respond to increased compensation in ways that differ from men. Separating men and women, as we have done in the final specification, shows just how significant this effect is. The results reveal that during the period 1997-2003 female Entrants had a 36 percent less chance of having a bachelors degree than Incumbent females. But that pattern is quite different following the compensation changes. This group of women MPs had a 28 percent higher chance of having a bachelors degree compared to all other females. The compensation change has no effect on men. Men are different in other ways, however. Specifically, older men have a reduced chance of holding a university degree; age has no effect on the likelihood that women will come to Parliament with a degree in hand.

These findings are consistent with a similar study performed in Finland where Kotakorpi and Poutvara (2010) found that after a similar compensation reform the education levels of women MPs improved significantly but men were unaffected. They speculated that a politician's salary is more attractive for highly educated women because female wages overall are relatively compressed. This is especially the case in the Finnish public sector where there is a relatively high concentration of well-educated females. For men, those who are sensitive to wage rate differences will not be as impressed with salary increases of this magnitude since the wage structure in the labour market for men is less elastic. Kotakorpi and Poutvara (2010, 31) suggest further that, "politics is a labor market with a relatively compressed wage distribution [that] tends to repel candidates with the highest outside earnings." Put more positively, educated women may find politics more agreeable because, as we suggested earlier, the compensation arrangements do not permit either seniority or discretion to play a role in determining salary levels and do not require bargaining. Moreover, as we have shown in section 3.2, women are

no longer disadvantaged in terms of access to authority positions. So a life, or at least a sojourn, in politics may be more agreeable in status terms.

Once the compensation reform was introduced, federal politics became more competitive in compensation terms with the private sector for those who have at least a bachelor's degree. However, the majority (65 percent) of our sample are in this category already. Did the reform attract people with still higher levels of education, that is masters degrees or PhDs? The short answer is no. Only NDP women were more likely to have master's degrees following the reform; no other category of MP was similarly affected. Other than for this small group, the compensation increase was not enough to generate masters educated candidates, perhaps because it is only the prospect of a cabinet position that would entice the most educated. As we have seen, having a masters degree does increase one's likelihood of reaching cabinet (at least in some governments). It may be this possibility, and not salary, that draws the most educated into politics.

How long do compensation effects last? The results reported here concentrate on the MPs elected just before and just after the compensation reform. What happens if the timeframe is adjusted such that a larger group of MPs is examined? Our results (not shown) suggest that expanding the timeframe dilutes the effect of the reform. We performed a DiD analysis on the succeeding cohorts of Entrants and Incumbents (for example, those elected in 2000 compared to those elected in 2004) and found no significant education differences. Whatever happened in 2000, the effects were not replicated at a later date. More compensation did not continue to improve education levels, suggesting that compensation reform has a short term signaling effect, after which education levels settles back into an established pattern. Apart from the short burst of women MPs with bachelors degrees, the reform did not create a sustained pattern of improved education levels, among either men or women.

5. Conclusion

This paper has explored the impact of compensation on competence. While we acknowledge the current prevalence of citizen candidate models in framing the question, our focus has been on the selection of political leaders by political parties. Specifically we have examined the choices of successive Canadian prime ministers in building their cabinets and allocating other executive positions.

We began with the question of whether competence is, in fact, valued. Competence can be defined in a variety of ways, and it is by no means the only quality that prime ministers are prepared to reward. However, there is growing evidence that the quality of executive leadership, particularly as evidenced by educational achievement, is a strong predictor of national economic performance. In Canada, we find that in selecting their cabinets recent prime ministers do have a preference for the relatively well educated. Differences exist, however, between the two major political parties. Recent Liberal governments, beginning in 1993, have recruited to Parliament candidates with relatively strong academic preparation. Nonetheless, prime ministers do show a preference for those with bachelors degrees in selecting the broad group of leaders and prospective leaders, which includes both ministers and parliamentary secretaries. The Conservative prime minister, Stephen Harper, has been even more selective, preferring those with graduate degrees and those whose occupations require professional credentials. Neither party has rewarded ex-ante political experience.

The second question explored here involves the role that compensation has in generating successful candidates with relatively high educational accomplishment. Citizen candidate models of political recruitment make the point that compensation is only one of a number of factors effecting candidate selection. We take advantage of a quasi-experiment involving a significant increase in the compensation of federal MPs in Canada to test whether or not compensation can be expected to have even a marginal effect on candidate quality. Our findings suggest that certain sub-groups of MPs, in this case women, are more likely to be affected by

upward shifts in compensation. We discuss why this may be the case and note that the impact of the change we observe does not persist beyond the initial compensation stimulus.

The quality of politicians is becoming of increasing concern in democratic political systems where the mediation of citizen demands and the capacity of the state must be reconciled. Whatever other qualities politicians may bring to their tasks, competence in the form of education is likely to loom large in the future as both electors and party leaders choose the teams in which they are prepared to invest.

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