

However, Schneider appears to be willing to concede that socio-demographic characteristics of judges do not influence their decision making in tax cases. The tipping point for Schneider could have occurred in the research process for his 2003 article. In his 2001 and 2002 articles, he appeared to be wide open on whether social backgrounds of judges can explain their judicial behavior. In the 2003 article he said that he “wanted to test the hypothesis that federal appellate judges’ rationale in justifying their decisions is fairly unaffected by social backgrounds, both in patterns seen in descriptive statistics and in predictions suggested by regressions,” and he found that “social background is a poor indicator of the methods of statutory construction judges use in justifying their decisions.”¹²⁴

One motivation for this dissertation is to determine whether socio-demographic characteristics of judges are decision-influential variables in judicial decision making in Canadian tax cases, and the exploratory data analyses presented in Section 3 and Section 4 show that quantitative analysis can capture some of the influences of socio-demographic characteristics of Canadian judges in their decision making.

3 Linking Socio-demographic Characteristics of Supreme Court of Canada Justices to their Decisions

Judges are expected to suppress the influences of their personal experiences in the performance of their judicial duties. Retired Justice La Forest wrote that “a judge brings

¹²⁴ See “Statutory Construction in Federal Appellate Tax Cases,” *supra* note 107 at 258-259.

to the task his or her own personal philosophy based on his or her total life experience” but “it is the duty of judges, as much as possible, to discount their own personal feelings or idiosyncratic values and attempt to grasp where the law and society have been, where they are now, and where on the basis of long term social values they should be going.”¹²⁵ During the 1982 swearing-in ceremony of Justice Wilson, the first female Supreme Court of Canada justice in Canada, then Minister of Justice Jean Chrétien attributed Wilson’s “wisdom and knowledge” to her “life experiences” but said that she should balance “influences of such things as place of birth, residence, age, sex, religion” with her legal training so she can stay “above the concerns of special interest groups or governments of the day.”¹²⁶

How successfully do judges suppress the influences of their personal backgrounds in judging? One way to find out is to ask the following empirical question: To what extent have personal backgrounds of judges influenced the performance of their judicial duties? Using an extension of the personal attributes model and the Schneider model reviewed in Section 2, this section of the dissertation explores the influences of socio-demographic characteristics of Supreme Court of Canada justices on their income tax decisions in 1920-2003. The data analysis was performed on originally compiled datasets

¹²⁵ G. V. La Forest, “Judicial Lawmaking, Creativity and Constraints” in Rebecca Johnson, John P. McEvoy, Thomas Kuttner, H. Wade MacLauchlan and DeLloyd J. Guth, eds., *Gérard V. La Forest at the Supreme Court of Canada, 1985-1997* (Winnipeg: Published for the Supreme Court of Canada Historical Society by the Canadian Legal History Project, Faculty of Law, University of Manitoba, 2000), 6.

¹²⁶ The ceremony was held on March 30, 1982. See Ellen Anderson, *Judging Bertha Wilson: Law as Large as Life* (Toronto: Published for The Osgoode Society for Canadian Legal History by University of Toronto Press, 2001), 128 [hereinafter Wilson].

on Supreme Court of Canada income tax cases and socio-demographic characteristics of the judges who decided the cases. The quantitative analytical approach is an exploratory one as explained in Section 1.

The exploratory data analysis of judicial decision making in Supreme Court of Canada income tax cases finds that social-demographic characteristics of Supreme Court of Canada justices will likely influence their decision making in income tax cases, if the past could offer a peek of the future. The socio-demographic characteristics examined in the exploratory data analysis include political ties of the justices, their regional ties, their careers prior to their appointment to the Supreme Court of Canada such as prior law teaching experience, prior judicial experience and prior law practice in the private sector and their education. According to the exploratory data analysis performed on the data of Supreme Court of Canada income tax cases, the influences of the justices' political ties do not fall along party lines neatly. That means not all justices who were appointed by Liberal Party prime ministers will likely vote for taxpayers or against taxpayers all the time. The influences of regional ties and prior careers are mixed, with some variables exerting influences in some situations. In contrast, the influences of justices' education outside Canada are decidedly one-sided. In general, justices who went to universities outside Canada are more likely to vote against taxpayers than justices who went to universities in Canada in cases with a lot of legal ambiguity, holding all other variables constant.

The rest of Section 3 unfolds as follows. Section 3.1 describes the data used for analysis. Section 3.2 presents the results of bivariate analysis. Section 3.3 presents the

results of multivariate analysis. Section 3.4 presents simulated voting patterns of justices based on the results of the multivariate analysis.

3.1 An Initial Look at the Data Available for Analysis of Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Two original Supreme Court of Canada datasets were compiled for the analysis of the influences of socio-demographic characteristics of judges on their decision making in income tax cases. One is a case dataset, while another is a judge dataset.

The dataset on cases contains information of income tax cases decided by the Supreme Court of Canada from 1920 to 2003. The information includes the name of the cases, the year of the cases when they were decided, the outcome of the cases, the individual votes cast by justices on the panel for the cases and the ruling of the prior court. The dataset on cases is based on published judicial opinions in law reports in Quicklaw, especially Dominion Tax Cases, and law reports in eCarswell.

The dataset on judges contains biographical information on the justices who decided the cases based on official Supreme Court of Canada biographies.¹²⁷ The biographical information provides socio-demographic information covering the prime ministers who appointed the justices, where the justices were born and where the justices spent the bulk of their careers, the prior professional careers of the justices and their

¹²⁷ The dataset on judges is based on official biographies of justices on http://www.scc-csc.gc.ca/AboutCourt/judges/index_e.asp.

education. The use of the official biographies is to ensure that similar information is available for each justice.

In the case dataset development, conscious efforts were made to divide the cases into unanimous cases and nonunanimous cases. Prior analyses of judicial behavior often focus on nonunanimous cases, which reflect disagreements among judges over legal issues in dispute. Such disagreements are viewed as providing an opening for influences of extra-legal variables such as personal backgrounds to seep into judicial decision making. That is why data analysis in this dissertation adopts the convention and divides up the cases into unanimous and nonunanimous cases, with special attention paid to nonunanimous case data. But such analysis is not a stand-alone exercise. The analysis of data derived from nonunanimous cases is always conducted in comparison with unanimous cases. Therefore, the same data analysis performed on data derived from nonunanimous cases is also performed on data derived from unanimous cases, as shown in the exploratory data analyses later in this section and Section 4.

Some information was not included in datasets used for this dissertation to simplify the dataset development process. The yet-to-be-coded case information includes the nature of cases such as whether the issues in disputes were related to a particular topic such as interest deductibility. As such case-related information could be useful in future data analysis of judicial decision making, such information should be included in the next round of judicial decision making dataset development. Other case-related data for Canadian tax cases that are not coded include the choice of statutory interpretation approaches of judges, whether the issues in the cases were related to General Anti-

Avoidance Rule (GAAR) and whether the cases were related to Generally Accepted Accounting Principles (GAAP).

Like the case dataset, the coverage of the judge dataset is not exhaustive. The judge dataset does not contain data on, for example, the parents and family members of the Supreme Court of Canada justices. Arguably the income of the parents of the judges, for instance, could be a good proxy of the social class and thus upbringing of the judges and an informative variable in the modeling. Such data should be added in future editions of the dataset.

The case dataset and the judge dataset are combined to produce a merged dataset of 1,932 judicial votes cast by 57 Supreme Court of Canada justices in 356 income tax cases decided from 1920 to early 2003. Methodologically, the transformation of the case data into voting data accomplishes three things. First, it increases the number of observations. Second, it changes the unit of analysis to individual justices' votes from cases decided by votes cast by panels made up by the justices. Third, it shifts the focus of analysis to individual action of justices from group action of justices. However, it should be emphasized that the focus of the data analyses of this dissertation remains group behavior of judges. That means the purpose of the dissertation is to determine judicial behavior of different groups of judges – Supreme Court of Canada justices with different socio-demographic characteristics – rather than to unearth information about individual justices.

3.1.1 Case Data

The merged dataset is described as follows. According to the merged dataset, the Supreme Court of Canada decided 356 income tax cases, which are estimated to amount to roughly 4% of all cases decided by the Court from 1920 to early 2003.¹²⁸ Unanimous cases account for 77% or 273 of all cases, while nonunanimous cases account for 23% or 83 of all cases. The Court did not decide any income tax cases in 1921, 1927, 1928, 1945, 1951, 1989 and 1991. In the remaining years of the study period, the number of cases decided per year ranges from 1 case in 11 different years to 22 cases in 1967.

Chronologically, the first case listed in the merged dataset is *Union Natural Gas Co. of Canada v. Dover (Township)* of 1920.¹²⁹ It was the first income tax case decided by the Supreme Court of Canada, about three years after the first introduction of federal income tax in Canada as a war-time revenue-raising measure for the federal government in 1917. The last case listed in the merged dataset is *Markevich v. Canada* of March 2003.¹³⁰ It was the last case coded for this round of the judicial decision making dataset development project.

¹²⁸ As no official and definite total case count is found, the following estimation procedure is followed. Assuming that the Supreme Court of Canada rendered an average of 100 judgments a year, the number of judgments rendered over 84 years would total 8,400. Dividing 356 by 8,400 would yield 0.04. In other words, judgments on income tax cases accounted for roughly 4% of total number of judgments rendered.

¹²⁹ [1920] 60 S.C.R. 640.

¹³⁰ 2003 SCC 9.

Figure 1: Number of Income Tax Cases Decided by Supreme Court of Canada by Year, 1920-2003

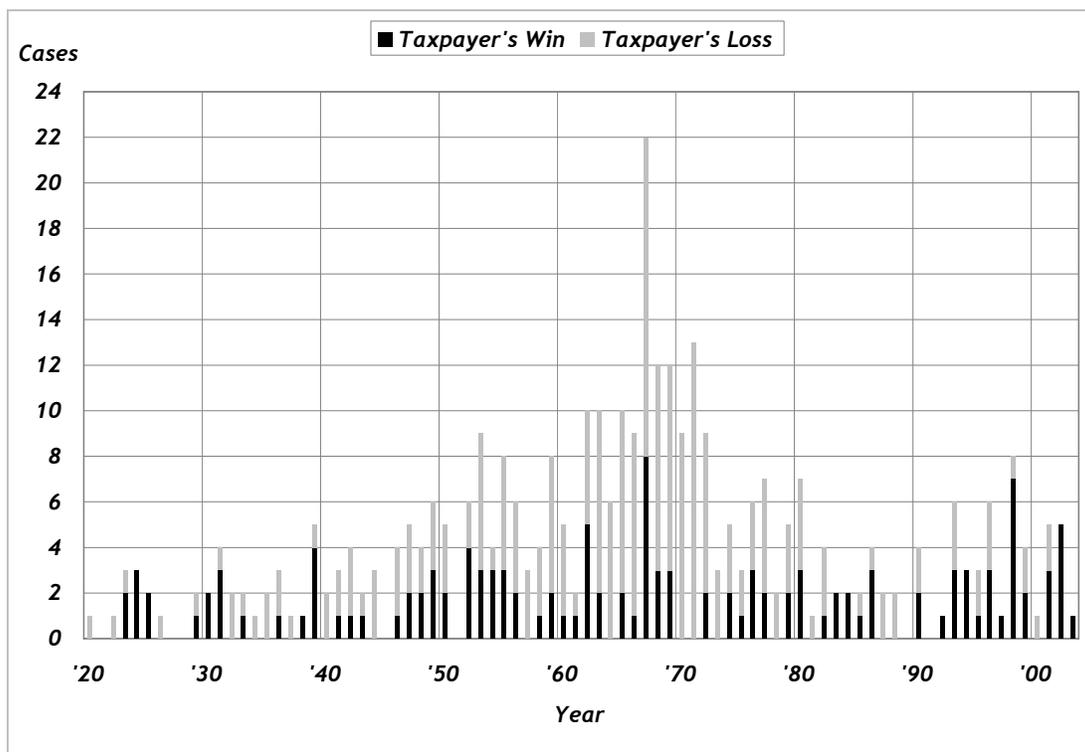


Figure 1 shows a spike in the annual number of income tax cases decided in the late 1960s and early 1970s. The number rose from the 1950s to the 1960s from 53 to 98 or an 85% hike and fell from the 1960s to the 1970s from 98 to 62 or a 37% slide. One reason for the fall is that by 1975 the automatic right of appeal to the Supreme Court of Canada of non-criminal cases was by and large taken away. The automatic right of appeal could be one of the reasons behind the fact that taxpayers appeared to be losing more in the 1960s and 1970s. As anyone could have mounted an appeal at that time, the Supreme Court of Canada had to deal with a lot of cases that might not have merit.

In the study period 1920-2003, the Supreme Court of Canada decided for taxpayers in only 37% or 133 of all cases, but decided against taxpayers in 63% or 223 of

all cases.¹³¹ In addition, 35% or 96 of the unanimous cases were decided for taxpayers, compared with 45% or 37 of the cases in nonunanimous cases.¹³²

3.1.2 Vote Data

The vote data mirror the win-loss split for taxpayers of the case data.¹³³ In the study period, 57 justices cast 1,932 votes, of which only 39% or 750 were cast for taxpayers but 61% or 1,182 were cast against taxpayers. Among the votes, 76% or 1,465 votes were cast in unanimous cases, while 24% or 467 of votes were cast in nonunanimous cases. Between the two types of cases, 37% or 547 of votes in unanimous cases were cast for taxpayers, compared with 43% or 203 of votes cast in nonunanimous cases.¹³⁴

¹³¹ Case outcomes are coded 1 to represent taxpayer wins and 0 to represent taxpayer losses.

¹³² Outcomes of the unanimous and nonunanimous cases are not that different. A chi-square test result is not significant at a five-percent level. In other words, the chi-square test result says that it is by chance that cases of a particular type (unanimous or nonunanimous cases) had particular outcomes (for or against taxpayers). The case data are tabulated in a 2 x 2 contingency table, with case outcomes for taxpayers and case outcomes against taxpayers as the rows and unanimous cases and nonunanimous cases as the columns.

¹³³ Votes are coded 1 to represent outcomes for taxpayers and 0 to represent outcomes against taxpayers.

¹³⁴ Voting records in unanimous cases are different from voting records in nonunanimous cases. A chi-square test result is significant at a five-percent level. The voting records are tabulated in a 2 x 2 contingency table, with votes cast for taxpayers and votes cast against taxpayers as the rows and unanimous cases and nonunanimous cases as the columns.

Figure 2: Voting Records of 57 Supreme Court of Canada Justices in Income Tax Cases, 1920-2003

Justices	All Votes	Votes in Unanimous Cases		Votes in Nonunanimous Cases			
		Total	For Taxpayers	Against Taxpayers	Total	For Taxpayers	Against Taxpayers
Abbott (1954-1973)	103	85	11	74	18	2	16
Anglin (1909-1933)	13	10	6	4	3	1	2
Arbour (1999-2004)	8	7	6	1	1	1	0
Bastarache (1997-Present)*	24	20	16	4	4	0	4
Beetz (1974-1988)	37	33	17	16	4	0	4
Binnie (1998-Present)	16	14	11	3	2	2	0
Brodeur (1911-1923)	4	2	1	1	2	1	1
Cannon (1930-1939)	12	11	5	6	1	1	0
Cartwright (1949-1970)*	83	59	17	42	24	18	6
Chouinard (1979-1987)	16	14	8	6	2	1	1
Cory (1989-1999)*	25	15	11	4	10	3	7
Crocket (1932-1943)	17	10	3	7	7	4	3
Davies (1901-1924)	5	3	1	2	2	2	0
Davis (1935-1944)	18	10	4	6	8	4	4
de Grandpré (1974-1977)	13	9	4	5	4	2	2
Deschamps (2002-Present)	1	1	1	0	0	0	0
Dickson (1973-1990)	39	35	13	22	4	2	2
Duff (1906-1944)	40	29	14	15	11	7	4
Estey, J. (1944-1956)	37	24	12	12	13	2	11
Estey, W. (1977-1988)	19	16	9	7	3	2	1
Fauteux (1949-1973)	80	64	14	50	16	5	11
Gonthier (1989-2003)	41	31	23	8	10	5	5
Hall (1962-1973)*	61	52	8	44	9	5	4
Hudson (1936-1947)	21	13	4	9	8	3	5
Hughes (1933-1935)	3	2	0	2	1	0	1
Iacobucci (1991-2004)*	42	31	24	7	11	4	7
Idington (1905-1927)	10	7	4	3	3	1	2
Judson (1958-1977)	110	85	17	68	25	1	24
Kellock (1944-1958)	37	21	7	14	16	7	9
Kerwin (1935-1963)	77	49	14	35	28	3	25
La Forest (1985-1997)*	27	18	10	8	9	1	8
Lamer (1980-2000)	22	18	9	9	4	2	2
Lamont (1927-1936)	13	11	6	5	2	1	1
Laskin (1970-1984)*	37	31	5	26	6	4	2
Le Dain (1984-1988)	1	1	0	1	0	0	0
LeBel (2000-Present)	11	10	8	2	1	0	1
L'Heureux-Dubé (1987-2002)	40	29	20	9	11	7	4
Locke (1947-1962)*	66	42	13	29	24	17	7
Major (1992-Present)	35	26	19	7	9	5	4
Malouin (1924)	3	2	2	0	1	0	1
Martland (1958-1982)	108	86	20	66	22	9	13
McIntyre (1979-1989)	23	21	10	11	2	1	1
McLachlin (1989-Present)	36	26	21	5	10	8	2
Mignault (1918-1929)	11	8	5	3	3	2	1
Newcombe (1924-1931)	10	10	7	3	0	0	0
Nolan (1956-1957)	2	1	0	1	1	0	1
Pigeon (1967-1980)*	66	56	15	41	10	7	3
Pratte (1977-1979)	4	4	1	3	0	0	0
Rand (1943-1959)	44	27	6	21	17	4	13
Rinfret (1924-1954)	51	33	13	20	18	9	9
Ritchie (1959-1984)	105	84	24	60	21	9	12
Smith (1927-1933)	10	9	5	4	1	0	1
Sopinka (1988-1997)	20	12	9	3	8	5	3
Spence (1963-1978)*	89	77	14	63	12	8	4
Stevenson (1990-1992)	2	2	2	0	0	0	0
Taschereau (1940-1967)*	66	44	9	35	22	14	8
Wilson (1982-1991)	18	15	9	6	3	1	2
Total	1,932	1,465	547	918	467	203	264

* Differences between votes in unanimous and nonunanimous cases statistically significant at five-percent level

At first glimpse, the voting patterns in unanimous cases and nonunanimous cases do not look that different from each other, as each has a four-to-six split. For the 1,465 votes cast in unanimous cases, the for-and-against-taxpayers split is roughly four to six, with 37% or 547 of the votes cast for taxpayers, while 63% or 918 of them cast against taxpayers. For the 460 votes cast in nonunanimous cases, the for-and-against-taxpayers split is again roughly four to six, with 44% or 202 of the votes cast for taxpayers, while 56% or 258 of them cast against taxpayers.¹³⁵ But delving deeper into the voting records of judges provides more information about possible voting patterns. The following is a series of rank-order breakdowns of Supreme Court of Canada justices by vote count categories to see what kind of information can be unearthed in the tabulations of the vote data by individual justices. Figure 2a shows top ten justices ranked by the number of votes cast and the bottom ten justices ranked by the number of votes cast.

¹³⁵ For example, some judges exhibited consistently voting patterns in unanimous cases that are different from those in nonunanimous cases. One way to illustrate that point is that the differences between voting patterns in unanimous and nonunanimous cases of 11 justices did not occur by chance. The Fisher's exact test results of the voting records of these justices are significant at a five-percent level. The voting records are tabulated in a 2 x 2 contingency tables. One table is set up for each justice, with vote counts (for and against taxpayers) as rows and case types (unanimous and nonunanimous) as columns. The justices are Bastarache, Cartwright, Cory, Hall, Iacobucci, La Forest, Laskin, Locke, Pigeon, Spence and Taschereau. Their names are marked with an asterisk in Figure 2. However, the point being made here is not to name the judges who exhibited consistently different voting patterns in two different case types because there are data constraints such as the small number of votes cast by some judges. The point is just that it is worth examining the voting records of judges in addition to looking at tabulations of the votes, as shown in the rest of the dissertation.

Figure 2a: Top Ten and Bottom Ten Justices Ranked by Number of Votes Cast in All Income Tax Cases in the Study Period

<i>Rank</i>	<i>Justices</i>	<i>Total Votes</i>	<i>For Taxpayers</i>	
1	Judson (1958-1977)	110	18	16%
2	Martland (1958-1982)	108	29	27%
3	Ritchie (1959-1984)	105	33	31%
4	Abbott (1954-1973)	103	13	13%
5	Spence (1963-1978)*	89	22	25%
6	Cartwright (1949-1970)*	83	35	42%
7	Fauteux (1949-1973)	80	19	24%
8	Kerwin (1935-1963)	77	17	22%
9	Locke (1947-1962)*	66	30	45%
10	Taschereau (1940-1967)*	66	23	35%
48	Arbour (1999-2004)	8	7	88%
49	Davies (1901-1924)	5	3	60%
50	Brodeur (1911-1923)	4	2	50%
51	Pratte (1977-1979)	4	1	25%
52	Malouin (1924)	3	2	67%
53	Hughes (1933-1935)	3	0	0%
54	Stevenson (1990-1992)	2	2	100%
55	Nolan (1956-1957)	2	0	0%
56	Deschamps (2002-Present)	1	1	100%
57	Le Dain (1984-1988)	1	0	0%

As shown in Figure 2a, top seven of the top ten justices who recorded the most votes served part of their tenure on the Supreme Court of Canada in the mid-1960s. That resonates with the distribution of cases over time as shown in Figure 1. Among the bottom ten justices in terms of the number of votes cast in income tax cases, Brodeur stood out as he only sat on four income tax cases in his over a dozen years of service on the Court. Figure 2b below shows top ten and bottom ten justices ranked by pro-taxpayer votes cast as percent of total votes cast.

Figure 2b: Top Ten and Bottom Ten Justices Ranked by Voting Percentages for Taxpayers in Income Tax Cases in the Study Period

Rank	Justices	Total Votes	For Taxpayers	
1	Stevenson (1990-1992)	2	2	100%
2	Deschamps (2002-Present)	1	1	100%
3	Arbour (1999-2004)	8	7	88%
4	Binnie (1998-Present)	16	13	81%
5	McLachlin (1989-Present)	36	29	81%
6	LeBel (2000-Present)	11	8	73%
7	Sopinka (1988-1997)	20	14	70%
8	Newcombe (1924-1931)	10	7	70%
9	Major (1992-Present)	35	24	69%
10	Gonthier (1989-2003)	41	28	68%
48	Laskin (1970-1984)*	37	9	24%
49	Fauteux (1949-1973)	80	19	24%
50	Rand (1943-1959)	44	10	23%
51	Kerwin (1935-1963)	77	17	22%
52	Hall (1962-1973)*	61	13	21%
53	Judson (1958-1977)	110	18	16%
54	Abbott (1954-1973)	103	13	13%
55	Hughes (1933-1935)	3	0	0%
56	Nolan (1956-1957)	2	0	0%
57	Le Dain (1984-1988)	1	0	0%

As shown in Figure 2b, justices in recent decades voted for taxpayers more often than justices in earlier years. Among the top ten justices, Binnie, Sopinka, Major and Gonthier joined the Court after the late 1980s. Three recent justices who voted for taxpayers 67% of the times are ranked 11 to 13: L'Heureux-Dubé (1987-2002), Iacobucci (1991-2004) and Bastarache (1997-Present). In contrast, Judson and Abbott, two of the bottom ten justices, served on the Court from the 1950s to the 1970s. Figure 2b resonates with the Peck findings as shown in Section 2.5.1. Figure 2c below shows top ten and bottom ten justices ranked by the number of votes cast in unanimous cases.

Figure 2c: Top Ten and Bottom Ten Justices Ranked by Number of Votes Cast in Unanimous Income Tax Cases in the Study Period

Rank	Justices	Votes in Unanimous Cases	For Taxpayers	
1	<i>Martland (1958-1982)</i>	86	20	23%
2	<i>Judson (1958-1977)</i>	85	17	20%
3	<i>Abbott (1954-1973)</i>	85	11	13%
4	<i>Ritchie (1959-1984)</i>	84	24	29%
5	<i>Spence (1963-1978)*</i>	77	14	18%
6	<i>Fauteux (1949-1973)</i>	64	14	22%
7	<i>Cartwright (1949-1970)*</i>	59	17	29%
8	<i>Pigeon (1967-1980)*</i>	56	15	27%
9	<i>Hall (1962-1973)*</i>	52	8	15%
10	<i>Kerwin (1935-1963)</i>	49	14	29%
48	<i>Idington (1905-1927)</i>	7	4	57%
49	<i>Pratte (1977-1979)</i>	4	1	25%
50	<i>Davies (1901-1924)</i>	3	1	33%
51	<i>Malouin (1924)</i>	2	2	100%
52	<i>Stevenson (1990-1992)</i>	2	2	100%
53	<i>Brodeur (1911-1923)</i>	2	1	50%
54	<i>Hughes (1933-1935)</i>	2	0	0%
55	<i>Deschamps (2002-Present)</i>	1	1	100%
56	<i>Nolan (1956-1957)</i>	1	0	0%
57	<i>Le Dain (1984-1988)</i>	1	0	0%

As shown in Figure 2c, eight of the top ten justices in terms of votes cast in unanimous cases served on the Supreme Court of Canada during the peak of cases heard in the mid-1960s. As unanimous cases account for the majority of cases decided, the top seven justices in Figure 2c and Figure 2a are the same set of justices, and the only differences are their rankings on the two lists. Similarly, the bottom nine justices in both lists comprise the same set of justices. Figure 2d below shows top ten and bottom ten justices ranked by pro-taxpayer votes cast as percent of votes cast in unanimous cases.

Figure 2d: Top Ten and Bottom Ten Justices Ranked by Voting Percentages for Taxpayers in Unanimous Income Tax Cases in the Study Period

Rank	Justices	Votes in Unanimous Cases	For Taxpayers	
1	Malouin (1924)	2	2	100%
2	Stevenson (1990-1992)	2	2	100%
3	Deschamps (2002-Present)	1	1	100%
4	Arbour (1999-2004)	7	6	86%
5	McLachlin (1989-Present)	26	21	81%
6	Bastarache (1997-Present)*	20	16	80%
7	LeBel (2000-Present)	10	8	80%
8	Binnie (1998-Present)	14	11	79%
9	Iacobucci (1991-2004)*	31	24	77%
10	Sopinka (1988-1997)	12	9	75%
48	Fauteux (1949-1973)	64	14	22%
49	Taschereau (1940-1967)*	44	9	20%
50	Judson (1958-1977)	85	17	20%
51	Spence (1963-1978)*	77	14	18%
52	Laskin (1970-1984)*	31	5	16%
53	Hall (1962-1973)*	52	8	15%
54	Abbott (1954-1973)	85	11	13%
55	Hughes (1933-1935)	2	0	0%
56	Nolan (1956-1957)	1	0	0%
57	Le Dain (1984-1988)	1	0	0%

As shown in Figure 2d, justices who served on the Supreme Court of Canada in recent decades populate the top ten justices ranked by voting percentages for taxpayer in unanimous cases. There are also other recent justices who recorded voting percentages for taxpayers of over 60%: Gonthier (1989-2003) – 74%; Cory (1989-1999) – 73%; Major (1992-Present) – 73%; L'Heureux-Dubé (1987-2002) – 69%; and Wilson (1982-1991) – 60%. In contrast, only two out of the bottom ten justices in terms of voting percentage for taxpayers in unanimous cases ended their tenure on the Court after 1980. Deschamps, Malouin and Stevenson did not vote against taxpayers in unanimous cases,

while Hughes, Le Dain and Nolan did not vote for taxpayers in unanimous cases.

One interesting thing that is not shown in Figure 2b is that Cartwright, who was considered a pro-taxpayer justice by Peck, recorded only a 29% voting percentage for taxpayers in unanimous cases. But his voting percentage for taxpayers in nonunanimous cases is what caught Peck's attention, as shown later in Figure 2f. But before that, Figure 2e below shows top ten and bottom ten justices ranked by the number of votes cast in nonunanimous cases first.

Figure 2e: Top Ten and Bottom Ten Justices Ranked by Number of Votes Cast in Nonunanimous Income Tax Cases in the Study Period

Rank	Justices	Votes in		
		Nonunanimous Cases	For Taxpayers	
1	Kerwin (1935-1963)	28	3	11%
2	Judson (1958-1977)	25	1	4%
3	Cartwright (1949-1970)*	24	18	75%
4	Locke (1947-1962)*	24	17	71%
5	Taschereau (1940-1967)*	22	14	64%
6	Martland (1958-1982)	22	9	41%
7	Ritchie (1959-1984)	21	9	43%
8	Rinfret (1924-1954)	18	9	50%
9	Abbott (1954-1973)	18	2	11%
10	Rand (1943-1959)	17	4	24%
48	LeBel (2000-Present)	1	0	0%
49	Smith (1927-1933)	1	0	0%
50	Malouin (1924)	1	0	0%
51	Hughes (1933-1935)	1	0	0%
52	Nolan (1956-1957)	1	0	0%
53	Newcombe (1924-1931)	0	0	n/a
54	Pratte (1977-1979)	0	0	n/a
55	Stevenson (1990-1992)	0	0	n/a
56	Deschamps (2002-Present)	0	0	n/a
57	Le Dain (1984-1988)	0	0	n/a

As shown in Figure 2e, the top ten justices in terms of votes cast in nonunanimous

cases recorded vote counts that are about one third of those of the top ten justices in the unanimous cases. Top ten justices who recorded relatively more votes in nonunanimous cases served before the Lamer years. The list of bottom ten justices does not mean much because of low vote count. Figure 2f shows top ten and bottom ten justices ranked by pro-taxpayer votes cast as percent of votes cast in nonunanimous cases.

Figure 2f: Top Ten and Bottom Ten Justices Ranked by Voting Percentages for Taxpayers in Nonunanimous Cases in the Study Period

Rank	Justices	Votes in Nonunanimous Cases	For Taxpayers	
1	<i>Binnie (1998-Present)</i>	2	2	100%
2	<i>Davies (1901-1924)</i>	2	2	100%
3	<i>Cannon (1930-1939)</i>	1	1	100%
4	<i>Arbour (1999-2004)</i>	1	1	100%
5	<i>McLachlin (1989-Present)</i>	10	8	80%
6	<i>Cartwright (1949-1970)*</i>	24	18	75%
7	<i>Locke (1947-1962)*</i>	24	17	71%
8	<i>Pigeon (1967-1980)*</i>	10	7	70%
9	<i>Spence (1963-1978)*</i>	12	8	67%
10	<i>Laskin (1970-1984)*</i>	6	4	67%
43	<i>La Forest (1985-1997)*</i>	9	1	11%
44	<i>Kerwin (1935-1963)</i>	28	3	11%
45	<i>Judson (1958-1977)</i>	25	1	4%
46	<i>Beetz (1974-1988)</i>	4	0	0%
47	<i>Bastarache (1997-Present)*</i>	4	0	0%
48	<i>LeBel (2000-Present)</i>	1	0	0%
49	<i>Smith (1927-1933)</i>	1	0	0%
50	<i>Malouin (1924)</i>	1	0	0%
51	<i>Hughes (1933-1935)</i>	1	0	0%
52	<i>Nolan (1956-1957)</i>	1	0	0%

As shown in Figure 2f, Cartwright recorded a 75% voting percentage for taxpayers in nonunanimous cases. Iacobucci notably misses the top ten cut because he

only recorded a 36% voting percentage for taxpayers in nonunanimous cases. Beetz, Bastarache, LeBel, Smith, Malouin, Hughes and Nolan did not vote for taxpayers in nonunanimous cases.

Among the bottom ten justices in terms of voting percentages for taxpayers in nonunanimous cases, Judson and Kerwin stood out as they almost never voted for taxpayers in nonunanimous cases. Only 52 justices are ranked because five did not vote in nonunanimous cases. Deschamps, Le Dain, Newcombe, Pratte and Stevenson did not vote in any nonunanimous cases in the study period. Binnie, Davies, Cannon and Arbour did not vote against taxpayers in nonunanimous cases.

The rank-order analysis of voting records by individual justices unearths some interesting information. For example, the tabulations show that Cartwright appears to be pro-taxpayer as described by Peck but only in nonunanimous cases while Iacobucci appears to be quite pro-taxpayer but only in unanimous cases. However, the knowledge that could be gleaned from an analysis of the above tabulated form of the voting records is limited because of the following factors. First, as shown in the above discussions of the tables, not all justices voted at least once for taxpayers and at least once against taxpayers in both unanimous and nonunanimous cases. Second, as some of the vote counts are low, percentages of voting for taxpayers and against taxpayers do not mean much so no extensive meaningful percentage analysis can be undertaken. For example, Arbour voted in one nonunanimous case, and she voted for the taxpayer. Her percentage of voting for taxpayers is 100%. Of course, that does not mean she is pro-taxpayer. For judges who cast only a few votes, quantitative analysis could not yield meaningful analysis of their

judicial decision making. Close reading of their decisions becomes the only viable analytical option. Third, more importantly, the tabulations do not tell the whole story about possible voting patterns because the tables do not connect the votes to possible explanations of judicial behavior. To do that, more nuanced data analysis is required.

3.2 Bivariate Analysis of Judicial Decision Making in Supreme Court of Canada Income Tax Cases

In Section 3 the main research question is whether the socio-demographic characteristics of Supreme Court of Canada justices would influence their decision making in income tax cases. The preliminary data analysis in Section 3.1 sets the scene for the following bivariate analysis. The Section 3.1 analysis reveals that (a) the relationship between case outcomes and the case types – unanimous and nonunanimous – were chance occurrences, but (b) the relationship between voting records of justices as a group and case types were not chance occurrences, and the relationship between voting records of some individual justices and case types were also not chance occurrences. Further investigations of the voting patterns are warranted to determine the possible causes of (b). As the first step to answer that, questions about partial explanations of judicial decision making are formulated in light of the data contained in the merged dataset and the findings of prior studies, especially the work of Schneider. I call the questions bivariate questions.

The bivariate questions ask whether the votes cast by the Supreme Court of Canada justices in income tax cases are associated with (1) the outcomes of the cases in

the prior court; (2) the time when they cast their votes; (3) the justices' political ties; (4) their regional ties; their professional experience such as (5) judicial experience, (6) law teaching experience and (7) lawyering experience; and (8) their education. The bivariate questions deal with the relationship between judicial votes and one set of variables only.

Among the bivariate questions, the first two questions provide the context for the rest of the questions. As explained later in this part of the section, (1) is a proxy for the legal model, while (2) provides the temporal context for judicial decision making. The rest deals with the relationships between socio-demographical characteristics of judges and their decisions.

The bivariate questions do not include some questions that prior researchers asked. One is whether votes and gender are associated, while another is whether votes and race are associated. In terms of gender, only five out of the 57 Supreme Court of Canada justices in the merged dataset are female. In the study period, the five justices – Arbour, Deschamps, L'Heureux-Dubé, McLachlin and Wilson – accounted for only about 5% of all votes cast. As the vote count is low, the gender influences are not explored in the exploratory data analysis in this section. However, in the future, gender should definitely be included in data analysis of judicial decision making of the Supreme Court of Canada once more votes from female justices are recorded.

In terms of race, none of the 57 justices are visible minorities. Class is often mentioned along with gender and race. All of the justices could be considered to be pillars in their upper-class communities in society, and the homogeneity is not conducive to quantitative analysis. However, their family backgrounds could be an interesting socio-

demographic variable, and as discussed earlier, data about the parents of judges are on the wish list of data for future dataset development.

The bivariate analysis proceeds as follows. The bivariate questions basically ask whether justices voted in ways as depicted in each question. To answer that, data analysis is performed to find out whether voting patterns examined in each question occurred by chance in the study period. If the voting patterns were chance occurrences, the voting patterns would be unlikely to be caused by the factors specified in the questions. If the voting patterns were not by and large chance occurrences, multivariate analysis will have the possibility to uncover some relationships between the voting outcomes and the factors specified in the questions, holding all variables constant.

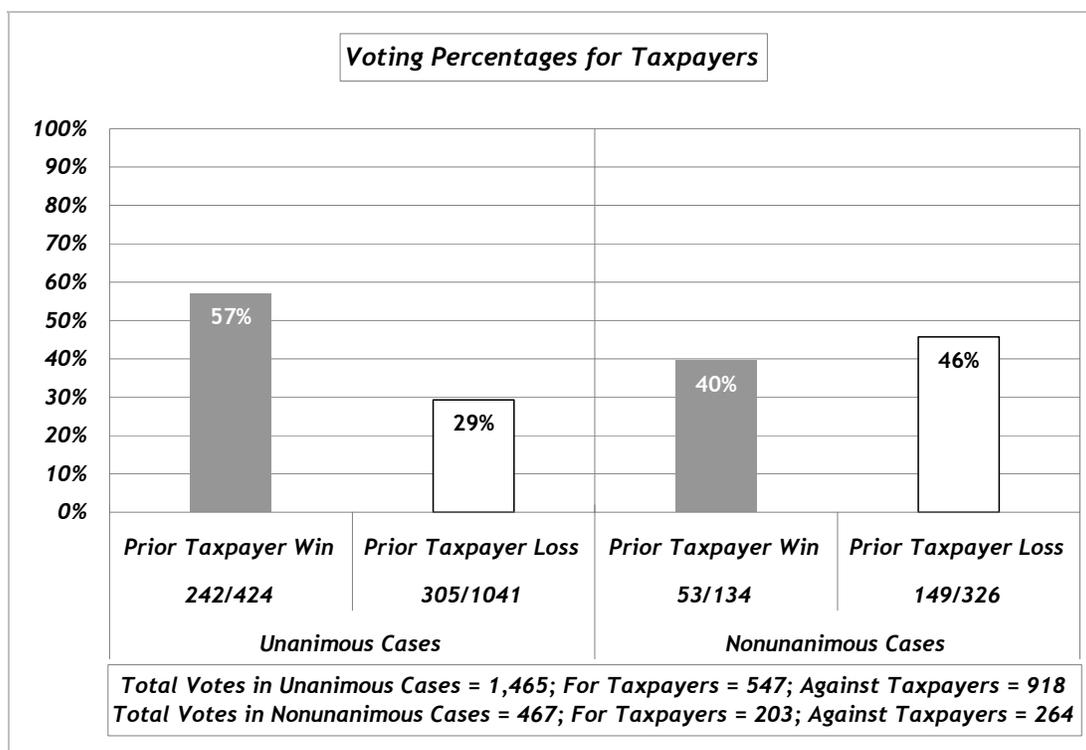
3.2.1 Votes Cast by Justices and Prior Taxpayer Wins

Judges interpret the law in deciding cases. One possible proxy of the influences of the law on judicial decision making is the outcomes of the cases decided by other courts. Although the Supreme Court of Canada does not need to follow the rulings of lower courts, the prior rulings still provide a usable proxy of the influences of the law in judicial decision making. As Schneider said, “[o]ne characterization of judicial decision-making is that judges engage in traditional legal reasoning, applying the law to the facts, and, implicitly, that any judge should arrive at the same result if presented with the same law

and factual situation.”¹³⁶ Therefore, the bivariate question is whether the relationship between the votes cast by Supreme Court of Canada justices and the prior court rulings occurred by chance.¹³⁷

Figure 3 shows votes cast in cases that taxpayers had won in the prior court and cases that taxpayers had lost in the prior court in unanimous and nonunanimous cases.

Figure 3: Voting Records of Justices in Cases With and Without Prior Taxpayer Win



¹³⁶ See Using the Social Background Model, *supra* note 108 at 205.

¹³⁷ A taxpayer win in the prior court is coded 1, while otherwise is coded 0. Strictly speaking, the cases that are coded 0 should be cases that taxpayers had not won rather than lost. For the purpose here, it is good enough to call these “cases that taxpayers had lost in the prior court.”

In Figure 3, the numbers inside the bars are the voting percentages for taxpayers, while information about the voting percentages is under the bar. As shown by the first bar to the left, justices voted for taxpayers 57 out of 100 times in unanimous cases that taxpayers had won in the prior court. The bar represents the fact that justices cast 242 of the 424 votes for taxpayers in such cases. The second bar to the left shows that justices voted for taxpayers 29 out of 100 times in unanimous cases that taxpayers had lost in the prior court. The bar represents the fact that justices cast 305 of the 1,041 votes for taxpayers in such cases.

The interpretation of the chart is the same for the two bars representing votes cast in nonunanimous cases. The second bar to the right shows that justices voted 40 out of 100 times for taxpayers in nonunanimous cases that taxpayers had won in the prior court. That represents the fact that justices cast 53 of the 134 votes for taxpayers in such cases. The bar to the right shows that justices voted 46 out of 100 times for taxpayers in nonunanimous cases that taxpayers had lost in the prior court. That represents the fact that justices cast 149 of 326 votes for taxpayers in such cases.

Figure 3 illustrates the finding that the voting percentages for taxpayers are quite different between cases with prior taxpayer win and cases with prior taxpayer loss in unanimous cases but the voting percentages are not as different in nonunanimous cases. In fact, the difference in voting behavior in unanimous cases did not occur by chance.¹³⁸

¹³⁸ The chi-square test of the voting records and outcomes of prior court decisions in unanimous cases is significant at a five-percent level. That means the maximum likelihood for the differences between the patterns of the two sets of data to be chance occurrences is only five out of 100 times. The chi-square tests

3.2.2 Votes Cast by Justices and When the Votes Were Cast

Justices might act in ways that are in tune with the times in which in live. One way to capture some impact of time on judicial decision making is to divide the study period into segments and compare judicial behavior in one against another. As Ostberg and Wetstein claimed that Supreme Court of Canada justices were prone to vote for taxpayers in post-*Charter* years,¹³⁹ the year of the enactment of the *Charter* – 1982 – is chosen as the dividing line. Therefore, the bivariate question is whether the relationship between votes cast by Supreme Court of Canada justices and the time period – pre-*Charter* era or post-*Charter* era – the votes were cast occurred by chance.¹⁴⁰

are set up as 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows while cases that taxpayers who had won in the prior court and cases that taxpayers who had lost in the prior court as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

¹³⁹ *Supra*, note 101. The *Charter* effect is discussed in more details in the multivariate analysis later in this section.

¹⁴⁰ A vote cast in the post-*Charter* era is coded 1, while otherwise is coded 0.

Figure 4: Voting Records of Justices in Pre-Charter and Post-Charter Years

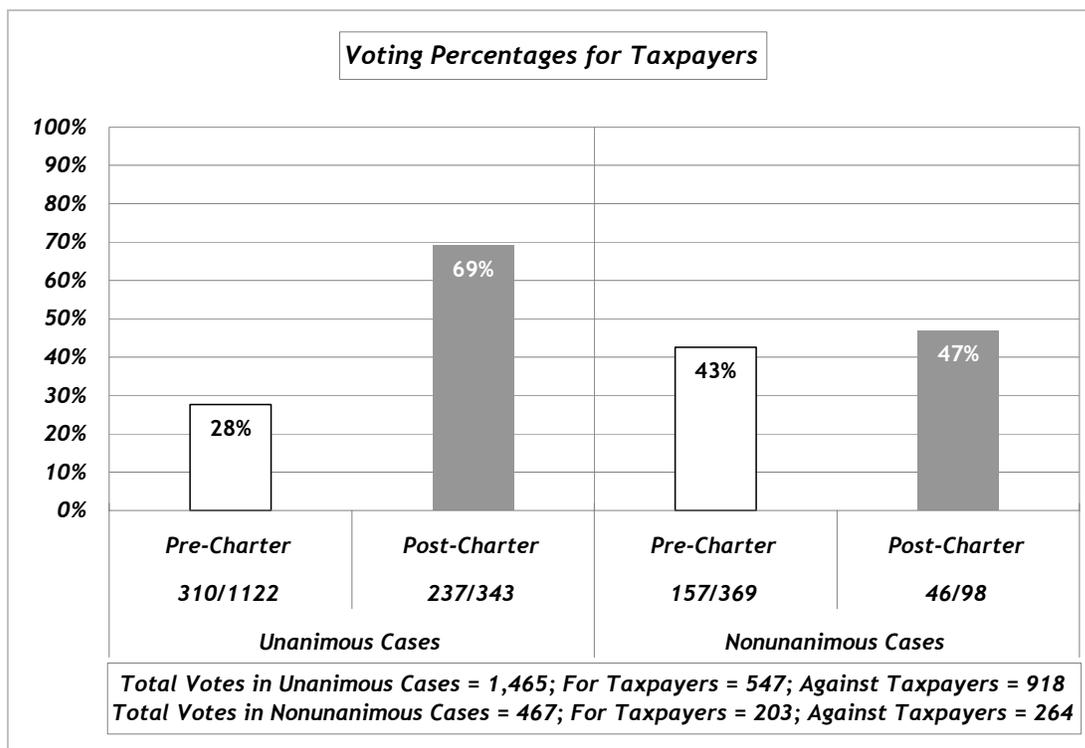


Figure 4 shows voting records of justices before and after 1982, illustrating the finding that the voting percentages for taxpayers are quite different between unanimous cases in the pre-Charter era and cases in the post-Charter era but not so different between nonunanimous cases in the two time periods. In unanimous cases, 28% or 310 of the 1,122 votes in pre-Charter cases were cast for taxpayers but 69% or 237 of the 343 votes in post-Charter cases were cast for taxpayers. In nonunanimous cases, 43% or 157 of the 369 votes in pre-Charter cases were cast for taxpayers, while 47% or 46 of the 98 votes in post-Charter cases were cast for taxpayers. In fact, the difference in voting

behavior in unanimous cases did not occur by chance.¹⁴¹

3.2.3 Votes Cast by Justices and Political Party of Prime Ministers Who Appointed the Justices

A possible explanation of judicial decision making is the political leanings of judges. However, unlike their American counterparts, Canadian judges seldom declare their political leanings in public, and Supreme Court of Canada justices are no exception. Therefore, a proxy is needed to represent their political leanings.

The political party of the Canadian prime ministers who appointed the justices could serve as a proxy. The underlying idea is that Canadian prime ministers are supposed to be more likely to appoint those who share similar views in politics to the Supreme Court of Canada than those who do not to the Court. The choice of the proxy is in line with the modeling practice in prior quantitative research on judicial decision making in the U.S., where the political parties of the presidents who appointed the U.S. Supreme Court justices are used as the proxy variable. As reviewed in Section 2.5, Altieri, Apple, Marquette and Moore as well as Schneider used the political party of U.S.

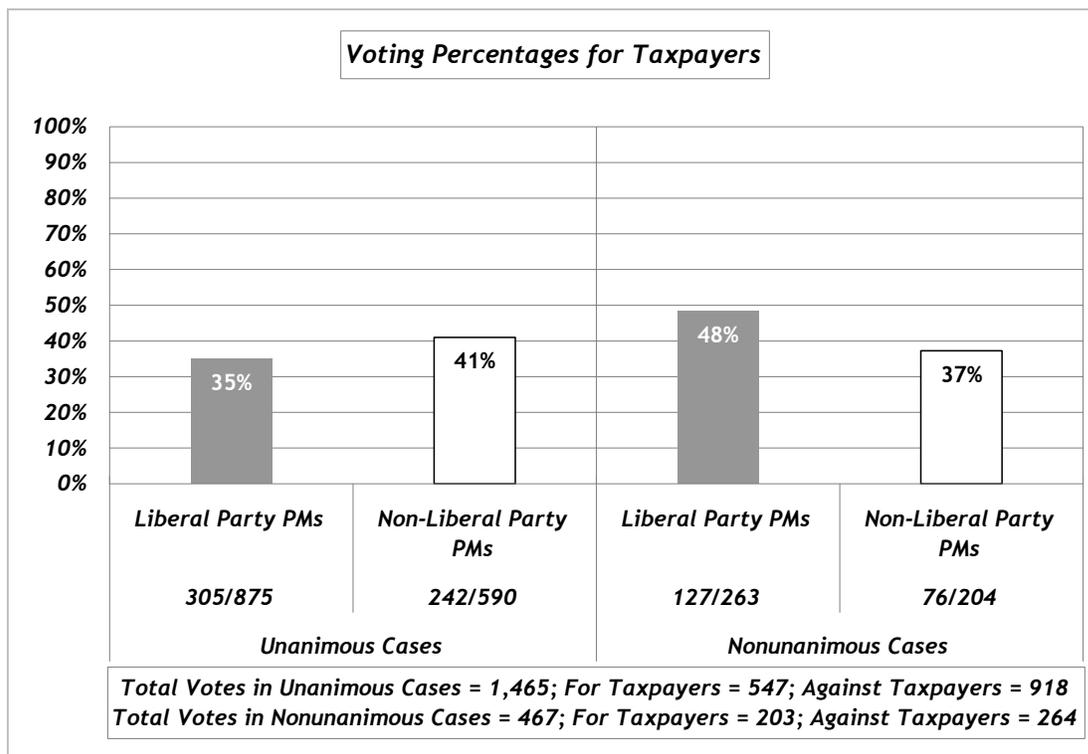
¹⁴¹ One possible reason for the difference is that, as mentioned earlier in Section 3.1.1, the Supreme Court of Canada needed to hear any case someone brought forward in most of the pre-*Charter* era. In the mid-1970s the Court stopped the practice of hearing almost all appeals. The chi-square test result for the unanimous cases is significant at a five-percent level. The chi-square tests are set up as 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows and pre-*Charter* and post-*Charter* cases as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

presidents who appointed the judges as the proxy in their respective analyses of U.S. tax cases. Therefore, the bivariate question is whether the relationship between votes cast by Supreme Court of Canada justices and the political affiliation of the prime ministers who appointed by the justices occurred by chance, and justices are divided into those appointed by Liberal Party prime ministers and others.¹⁴²

Figure 5 shows voting records of justices by the political parties of the prime ministers who appointed them. In 1920-2003, a total of 13 prime ministers formed 17 governments in Canada. Among these prime ministers, only 11 who formed 16 governments appointed justices to the Supreme Court of Canada. Among these prime ministers, six were from the Liberal Party.

¹⁴² Appointed by Liberal Party prime ministers is coded 1, while otherwise is coded 0.

Figure 5: Voting Records of Justices Appointed by Two Groups of Prime Ministers



As shown in Figure 5, justices appointed by Liberal Party prime ministers voted for taxpayers less than justices appointed by non-Liberal Party prime ministers in unanimous cases, but the pattern is in reverse in nonunanimous cases. The differences between voting percentages for taxpayers of justices appointed by Liberal Party prime ministers and other prime ministers were not chance occurrences.¹⁴³ As the study period covers a long stretch of time, it could be informative to see whether the percentages of voting for taxpayers of 41% in unanimous cases and 37% in nonunanimous cases by

¹⁴³ The chi-square tests are set up as 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows and the political parties of appointing prime ministers as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases. The chi-square test results are significant at a five-percent level for both unanimous and nonunanimous cases.

judges appointed by Liberal Party prime ministers are representative of all these judges over time. Thus, the political ties variable is broken down by each Liberal Party prime minister, with non-Liberal Party prime ministers as one category, as shown in Figure 6 and Figure 7. In other words, the two figures break down the columns representing the votes of Liberal appointees in Figure 4 and Figure 5 by individual prime ministers.

The Liberal Party appointees are (1) Wilfrid Laurier in his term from July 11, 1896 to October 6, 1911; (2) Mackenzie King in his first term from December 29, 1921 to June 28, 1926 and his second term from September 25, 1926 to August 7, 1930; (3) King in his third term from October 23, 1935 to November 15, 1948; (4) Louis St. Laurent in his term from November 15, 1948 to June 21, 1957; (5) Lester Pearson in his term from April 22, 1963 to April 20, 1968; (6) Pierre Trudeau in his first term from April 20, 1968 to June 3, 1979; (7) Trudeau in his second term from March 3, 1980 to June 30, 1984; and (8) Jean Chrétien in his term from Nov. 4, 1993 to Dec. 12, 2003. The lone Liberal Party appointee in the study period excluded is John Turner, who did not appoint any Supreme Court justice in his term from June 30, 1984 to September 17, 1984.

The non-Liberal Party prime ministers are grouped into one category. They were Robert Borden (Unionist: October 12, 1917 – July 10, 1920); Richard Bennett (Conservatives: August 7, 1930 – October 23, 1935); John Diefenbaker (Progressive Conservatives: June 21, 1957 – April 22, 1963); Joe Clark (Progressive Conservatives: June 4, 1979 – March 2, 1980); Brian Mulroney (September 17, 1984 – June 25, 1993). Kim Campbell (Progressive Conservatives: June 25, 1993 – November 4, 1993) was excluded because she did not appoint any Supreme Court of Canada justices.

Figure 6: Votes in Unanimous Cases of Justices by Prime Ministers Who Appointed Them

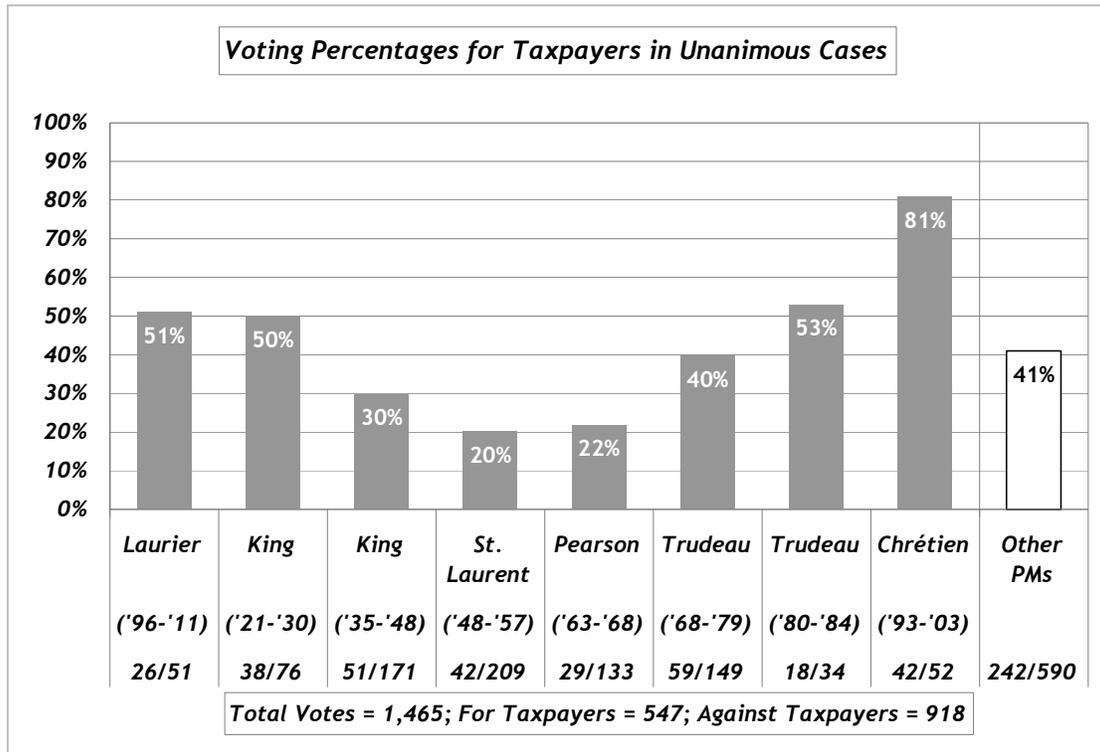
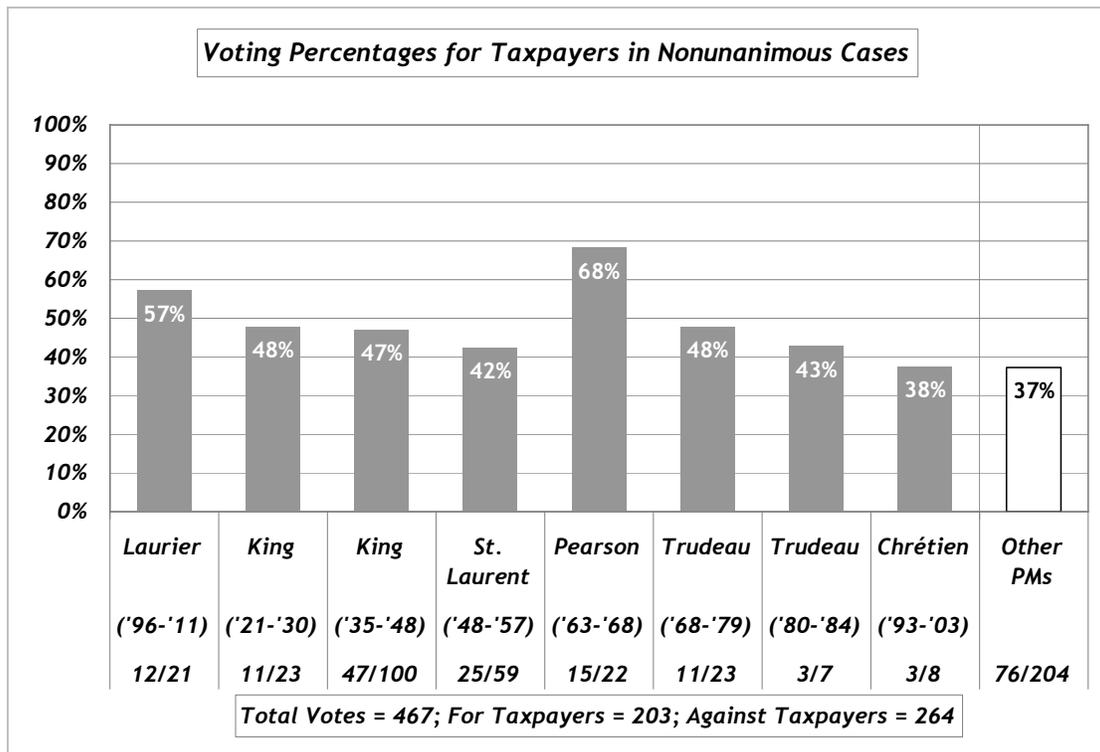


Figure 7: Votes in Nonunanimous Cases of Justices by Prime Ministers Who Appointed Them



The two figures show that the variability of the voting percentages for taxpayers in unanimous cases by Liberal Party prime ministers over time is higher than those in nonunanimous cases. The variability leads to the modeling decision to use the finer categories of the political ties variable in Section 3.3, as in modeling judicial voting patterns over time an aggregate may not represent the attributes of its components.

3.2.4 Votes Cast by Justices and Where Justices Built Their Careers

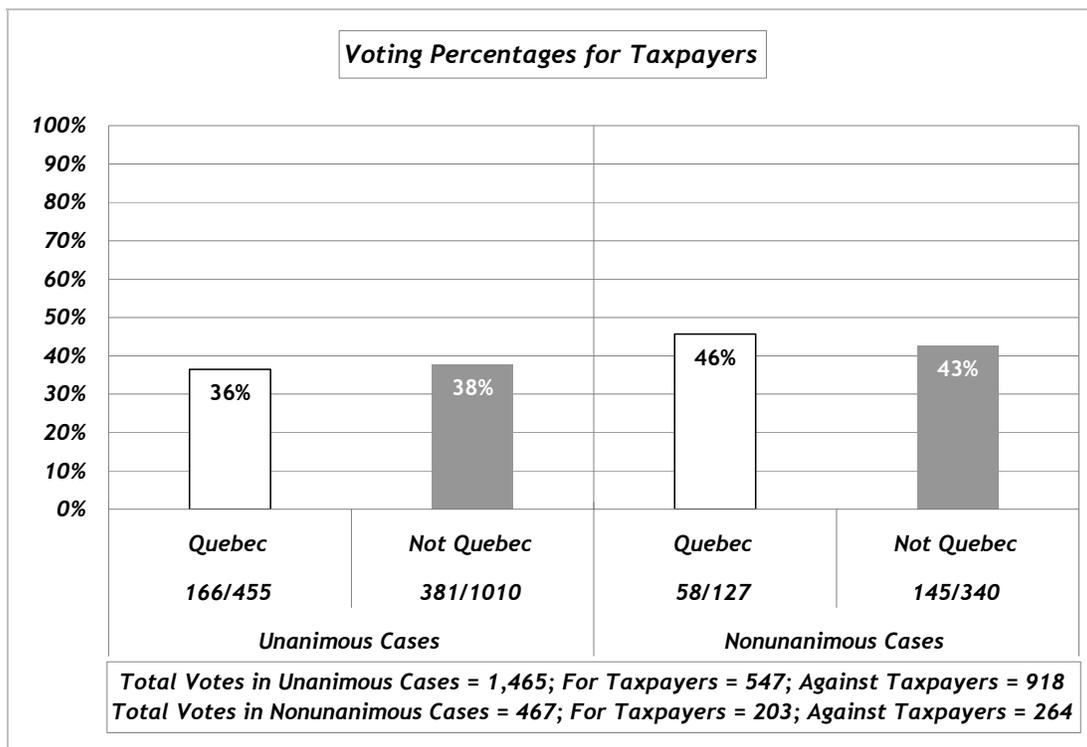
Justices from different parts of the Canadian cultural mosaic might have been influenced by practices, customs and cultures of where they are from. Currently, the *Supreme Court Act* ensures that three Supreme Court of Canada justices must be hailed from Quebec.¹⁴⁴ Among the remaining six, three are usually from Ontario, two from the West, and one from Atlantic Canada. As shown in the literature review in Section 2, Quebec justices voted differently as a group on a consistent basis in comparison with other justices. Thus, the bivariate question is whether the relationship between votes cast by justices and their regional ties occurred by chance, and justices are divided into those from Quebec and others.¹⁴⁵ Figure 8 shows the voting records of justices with ties to Quebec and those without ties to Quebec.

¹⁴⁴ *Supreme Court Act*, [R.S. 1985, c. S-26], s.6:

At least three of the judges shall be appointed from among the judges of the Court of Appeal or of the Superior Court of the Province of Quebec or from among the advocates of that Province.

¹⁴⁵ Having Quebec ties is coded 1, while otherwise is coded 0.

Figure 8: Voting Records of Justices With and Without Ties to Quebec



The definition of regional ties needs to be clarified. Although the convention in quantitative analysis of judicial decision making is to consider the birthplace of the judge as the place to which he had ties, such a convention may not accurately capture the regional influences on judges. The judicial appointment process to the Supreme Court of Canada at times regards the place where the judge built her or his career as the place the judge “represents.” For example, Justice McIntyre, who was appointed as a justice from British Columbia, was born in Quebec but practiced law as well as served both as a trial judge and an appellate judge in British Columbia for a total of over 20 years.¹⁴⁶ In this

¹⁴⁶ See McIntyre, *infra* note 191. Incidentally, the appointment of McIntyre to replace Justice Spence, who was from Ontario rather than British Columbia, was said to be a strategic move by Trudeau to “placate the

dissertation, the place where a justice spent a large part of her or his working lives is considered the region to which she or he had ties.

Figure 8 illustrates the finding that the voting percentages for taxpayers by justices with and without ties to Quebec are not that different in unanimous and nonunanimous cases.¹⁴⁷ To further examine that, two questions on regional ties are added: one question concerning Ontario and one question concerning anywhere other than Ontario and Quebec.¹⁴⁸ One is whether the relationship between votes cast by justices and their tie to Ontario occurred by chance.¹⁴⁹ The other is whether the relationship between votes cast by justices and their tie to anywhere other than Ontario and Quebec occurred by chance.¹⁵⁰ Figure 9 shows voting records of justices with ties to Ontario, Quebec and anywhere other than Ontario and Quebec. The figure illustrates the finding that the voting percentages of the non-Quebec justices are not that different from Quebec justices in unanimous cases and nonunanimous cases.¹⁵¹

British Columbia bar which thought the province had been ignored.” See Dickson, *infra* note 188, at 186-187.

¹⁴⁷ The chi-square tests are set up as 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows and with and without ties to Quebec as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases. The chi-square test results are not statistically significant at a five-percent level for both unanimous and nonunanimous cases.

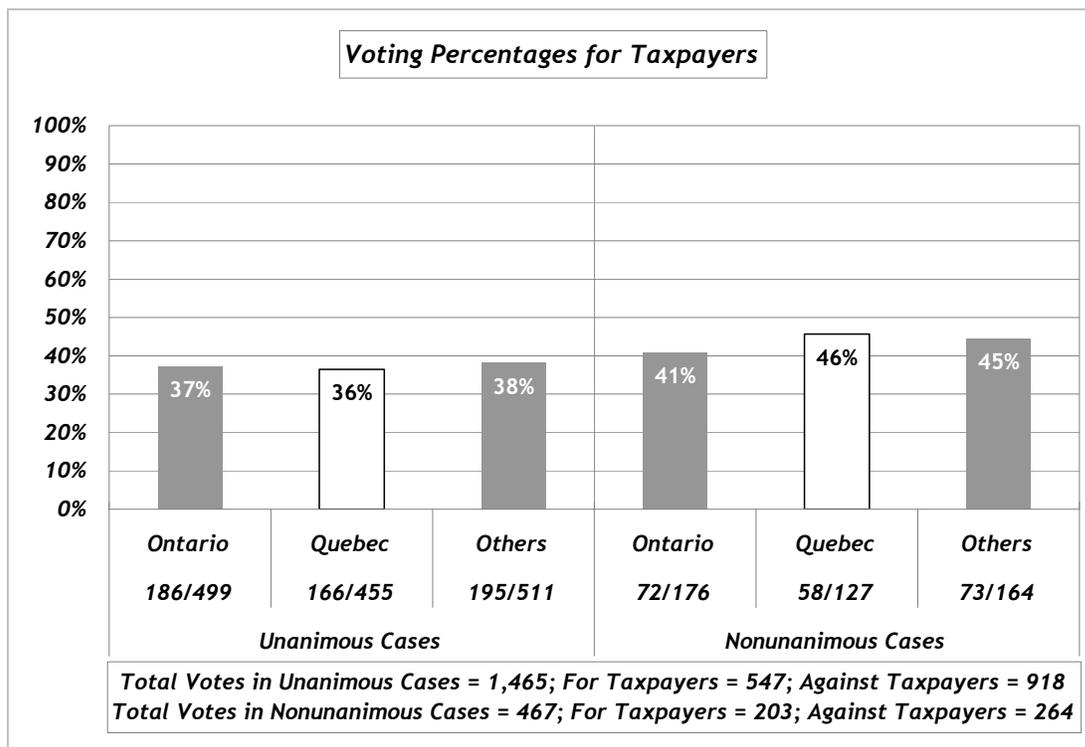
¹⁴⁸ Thus the set of two dummy variables represents three categories – whether justices spent a large part of their working lives in Ontario, Quebec or somewhere other than Ontario and Quebec.

¹⁴⁹ Justices with ties to Ontario are coded 1, while others are coded 0.

¹⁵⁰ Justices with ties to areas other than Ontario and Quebec are coded 1, while others are coded 0.

¹⁵¹ The chi-square test results are not statistically significant at a five-percent level for both unanimous and nonunanimous cases. The chi-square tests are set up as a 2 x 3 contingency tables, with votes cast for

Figure 9: Voting Records of Justices with Different Regional Ties



The upcoming Section 3.2.5, Section 3.2.6 and Section 3.2.7 present bivariate findings on votes cast by justices and their professional careers prior to their appointment to the Supreme Court of Canada. Prior professional experiences of Supreme Court of Canada justices are assumed to have shaped their thought process and thus influenced their decision making in income tax cases as justices spent a large part of their lives doing what they did as judges or law teachers or lawyers before they became successful enough to be appointed to the Court. Therefore, three particular types of professional experiences covering aspects of the justices' prior careers in judging, teaching and lawyering are

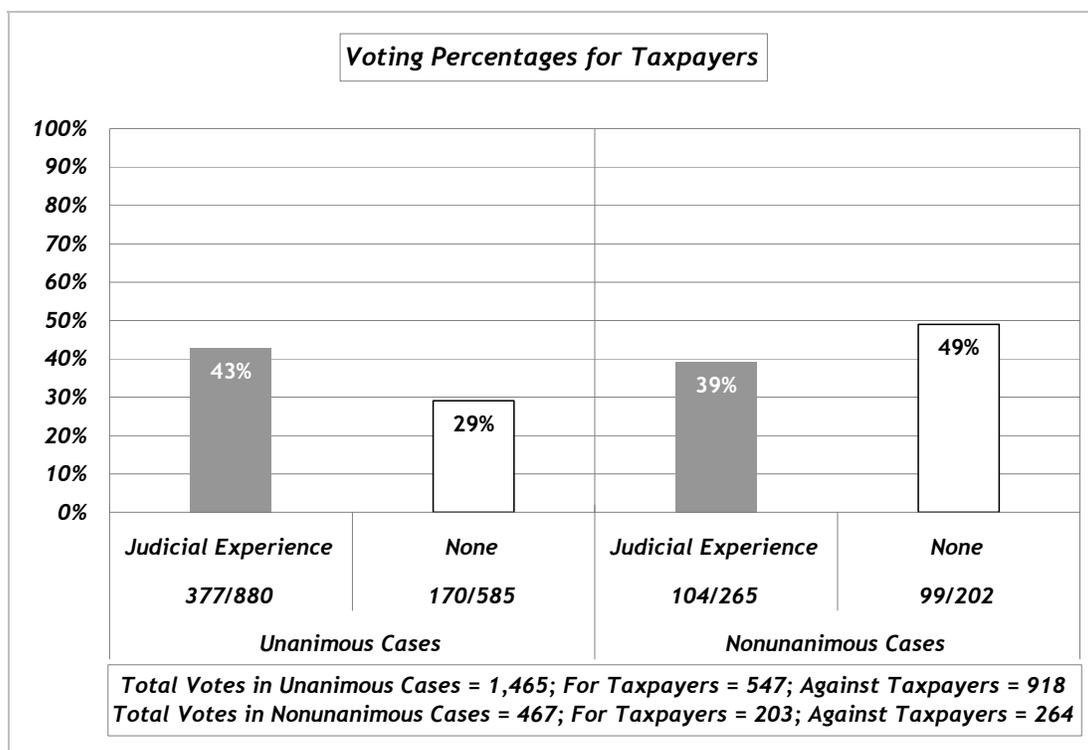
taxpayers and votes cast against taxpayers as the rows while having ties to Ontario, Quebec and other areas as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

explored in relation to judicial decision making.

3.2.5 Votes Cast by Justices and Their Prior Judicial Experience

The general bivariate question in terms of judicial experience is whether the relationship between votes cast by the justices and their prior judicial experience occurred by chance.¹⁵² Figure 10 shows the voting records of justices by their prior judicial experience.

Figure 10: Voting Records of Justices With and Without Prior Judicial Experience



¹⁵² Having judicial experience is coded 1, while otherwise is coded 0.

The figure illustrates the finding that the voting percentages for taxpayers of justices who were judges before are quite different from those who were not judges before in both unanimous cases and nonunanimous cases. Justices with prior judicial experience voted for taxpayers more than justices without prior judicial experience in unanimous cases, but the pattern is in reverse in nonunanimous cases. In fact, the differences did not occur by chance.¹⁵³

To further examine the judicial experience variable, the general bivariate question on judicial experience is broken down further into three questions.¹⁵⁴ The first question is whether the relationship between votes cast by justices and their trial court experience occurred by chance.¹⁵⁵ The second question is whether the relationship between votes cast by justices and their appellate court experience occurred by chance.¹⁵⁶ The third question is whether the relationship between votes cast by justices and their trial and appellate court experiences occurred by chance.¹⁵⁷

¹⁵³ The chi-square test results are statistically significant at a five-percent level for both unanimous and nonunanimous cases. The chi-square tests are set up as a 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows while having prior judicial experience and having no prior judicial experience as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

¹⁵⁴ A set of three dummy variables is coded to represent whether justices sat on the bench at the trial court, appeal court or both courts.

¹⁵⁵ Justices who were trial judges are coded 1, while others are coded 0.

¹⁵⁶ Justices who were appellate judges are coded 1, while others are coded 0.

¹⁵⁷ Justices who were trial and then appellate judges are coded 1, while others are coded 0.

Figure 11: Voting Records of Justices Divided by Types of Prior Judicial Experience

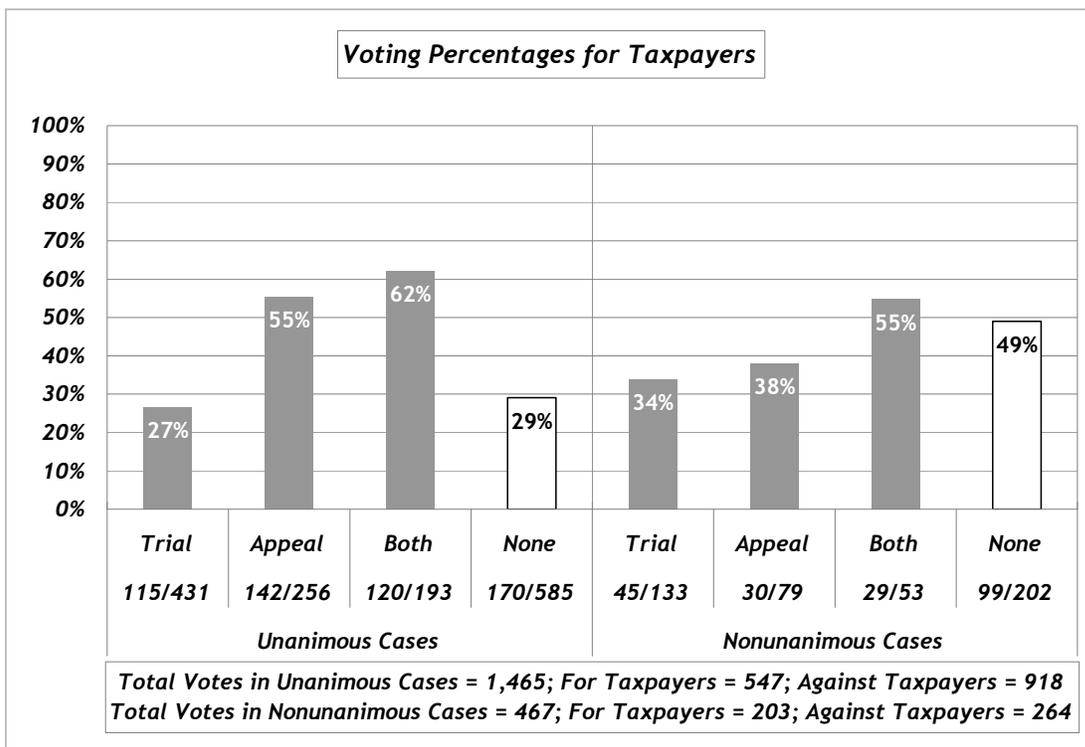


Figure 11 illustrates the finding that the voting percentages for taxpayers of justices who had prior judicial experience as a group are quite different from those of justices who had no prior judicial experience in both unanimous and nonunanimous cases. In unanimous cases, justices with trial court experience voted for taxpayers less than justices without prior judicial experience, but justices with appellate court experience and with experiences in both trial and appellate courts voted for taxpayers more than justices without prior judicial experience. However, in nonunanimous cases, justices with trial or appellate court experiences voted for taxpayers less than justices without prior judicial experience, but justices with experiences in both trial and appellate courts voted for taxpayers more than justices with no prior judicial experience. In fact,

the differences did not occur by chance.¹⁵⁸

3.2.6 Votes Cast by Justices and Their Law Teaching Experience

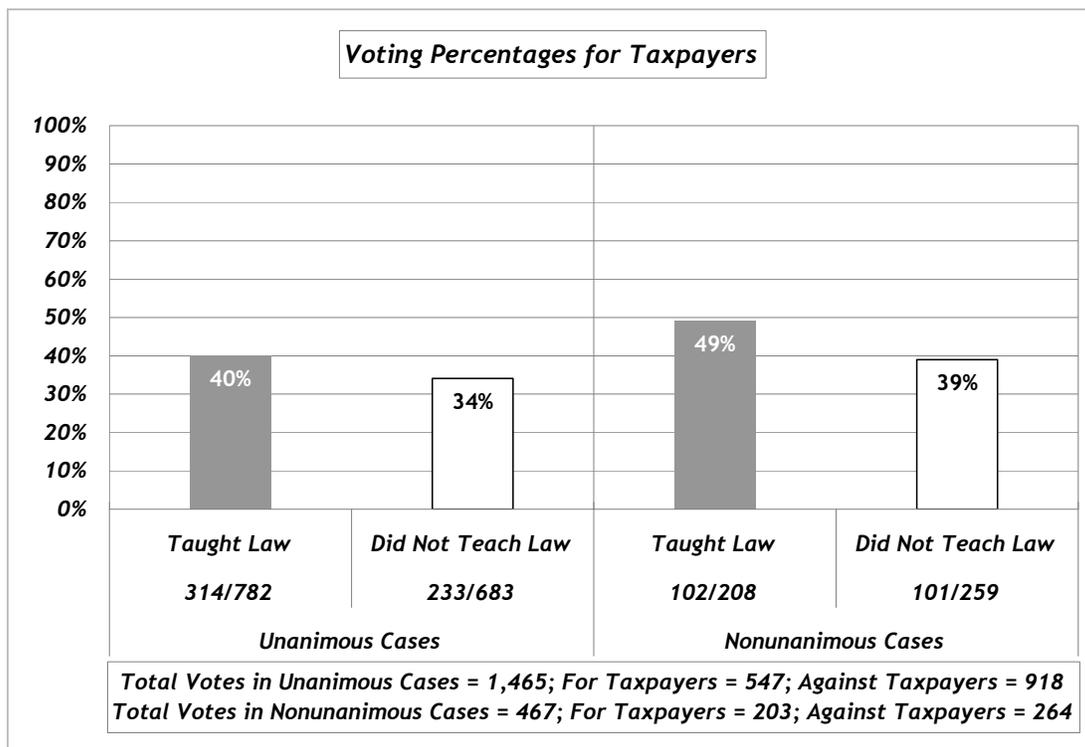
The general bivariate question on law teaching experience is whether the relationship between votes cast by justices and their law teaching experience occurred by chance.¹⁵⁹ Figure 12 shows votes by justices divided by their prior law teaching experience. In both unanimous and nonunanimous cases, justices who taught law before voted for taxpayers more than justices who did not teach law before. In fact, the differences in the voting percentages between the two groups of justices did not occur by chance.¹⁶⁰

¹⁵⁸ The chi-square test results are statistically significant at a five-percent level for both unanimous and nonunanimous cases. The chi-square tests are set up as 2 x 4 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows while having judicial experience on a trial court, an appellate court, in both levels of courts and none of the above as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

¹⁵⁹ Having law teaching experience is coded 1, while otherwise is coded 0.

¹⁶⁰ The chi-square test results are statistically significant at a five-percent level for both unanimous and nonunanimous cases. The chi-square tests are set up as 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows while having prior law teaching experience and having no prior law teaching experience as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

Figure 12: Voting Records of Justices With and Without Law Teaching Experience



To further examine the differences, the general question is broken down into two questions.¹⁶¹ The first question is whether the relationship between votes cast by justices and their full-time law teaching experience occurred by chance.¹⁶² The second question is whether the relationship between votes cast by justices and their part-time law teaching experience occurred by chance.¹⁶³ Figure 13 shows the voting records of justices divided by the types of law teaching experience.

¹⁶¹ A set of two dummy variables for three categories is coded to represent whether justices were full-time law teachers or part-time law teachers.

¹⁶² Justices who were full-time law teachers are coded 1, while others are coded 0.

¹⁶³ Justices who were part-time law teachers are coded 1, while others are coded 0.

Figure 13: Voting Records of Justices Divided by Types of Law Teaching Experience

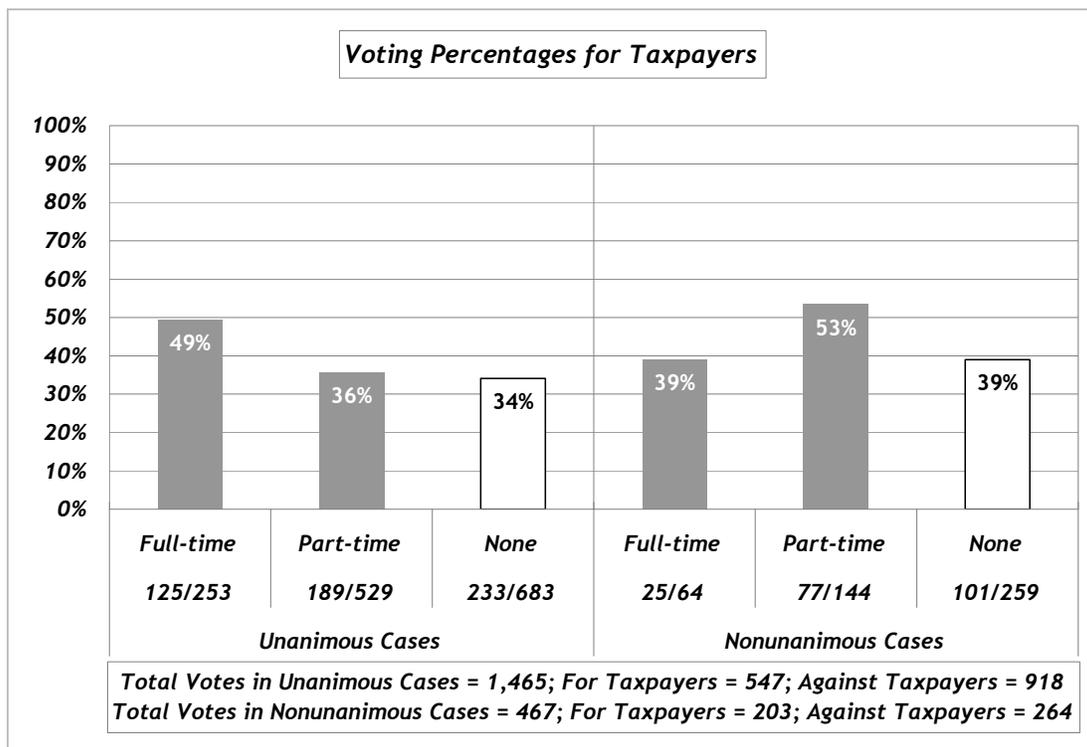


Figure 13 illustrates the finding that the voting percentages for taxpayers of justices with different types of law teaching experiences are quite different from each other. In unanimous cases, justices with full-time or part-time law teaching experience voted for taxpayers more than justices with no law teaching experience. In nonunanimous cases, justices with full-time law teaching experience and justices with no law-teaching experience voted for taxpayers in similar frequencies, but justices with part-time law teaching experience voted for taxpayers more than others. In fact, the differences did not occur by chance.¹⁶⁴

¹⁶⁴ The chi-square test results are statistically significant at a five-percent level for both unanimous and nonunanimous cases. The chi-square tests are set up as 2 x 3 contingency tables, with votes cast for

3.2.7 Votes Cast by Justices and Their Experience in Founding Their Own Law Firms

The formulation of questions about the influences of the justices' experiences in practicing law is slightly more complicated. As most justices practiced law for some length of time prior to their appointment to the Supreme Court of Canada, asking questions concerning whether the justices practiced law before may not be very informative. Instead, the question on whether justices founded their own law firms is chosen as a proxy to represent the nature of the justices' careers as lawyers before their appointment to the Supreme Court of Canada. The underlying idea is that justices who founded their law firms were likely to be more entrepreneurial than others who did not found their own law firms, and such entrepreneurial justices might decide cases in a different way compared with their brethren. Therefore, the bivariate question is whether the relationship between votes cast by Supreme Court of Canada justices and their entrepreneurial lawyering experience, or the lack of it, occurred by chance.¹⁶⁵ Figure 14 shows the voting records of justices who founded their law firms and justices who did not do so.

taxpayers and votes cast against taxpayers as the rows while having full-time law teaching experience, part-time law teaching experience and having no prior law teaching experience as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

¹⁶⁵ A dummy variable is set up to represent whether the justices founded their own law firms. An affirmative answer is coded 1. Otherwise it is coded 0.

Figure 14: Voting Records of Entrepreneurial Justices and Others

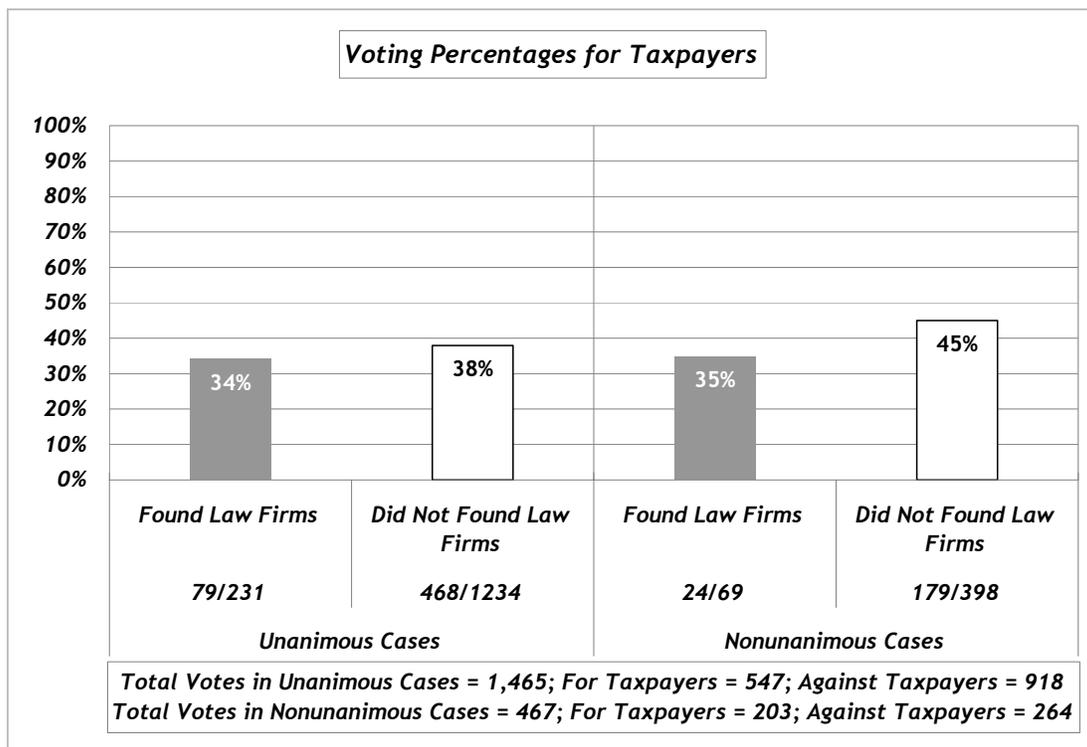


Figure 14 shows that the difference in voting percentages for taxpayers between justices who founded their law firms and justices who did not start their law firms does not look very different in unanimous cases. In fact, the voting percentages of the two groups of justices in unanimous and nonunanimous cases were chance occurrences.¹⁶⁶

¹⁶⁶ The chi-square test results are not statistically significant at a five-percent level. The tests are set up as 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows and justices who founded their own law firms and other justices as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

3.2.8 Votes Cast by Justices and Their International Education

Education influences one's decision making. As shown in the literature review in Section 2, Schneider found that appellate judges who went to nonelite law schools were more likely to vote for taxpayers. However, it is difficult to determine the eliteness of Canadian law schools the justices attended. In light of the data available, the direction of the inquiry is shifted a little bit. The fact that some justices went to universities outside Canada for part of their legal education gives rise to the conjecture that justices who were educated outside Canada might have behaved differently than those who were educated in Canada because the former might have picked up influences in other countries that others might not have the opportunities to be exposed to in Canada. Therefore, the bivariate question is whether the relationship between votes cast by Supreme Court of Canada justices and their international education occurred by chance.¹⁶⁷

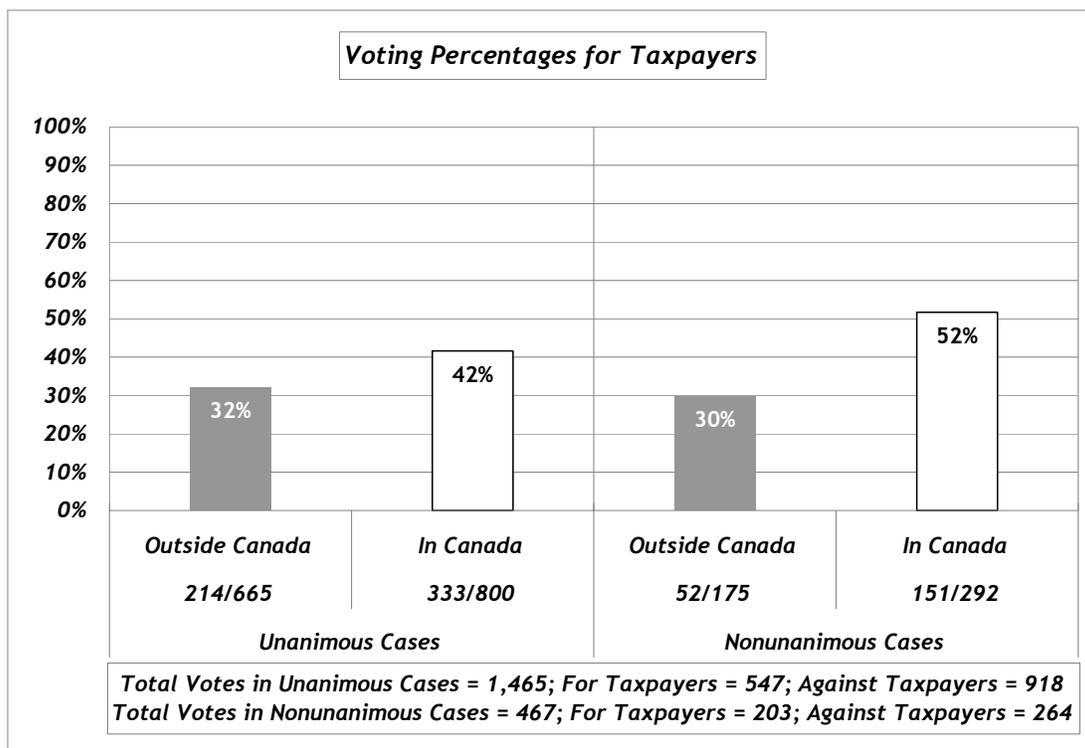
Figure 15 shows the voting records of justices divided by whether they went to universities outside Canada.¹⁶⁸ The figure illustrates the finding that the voting percentages between the two groups of justices are quite different. In fact, the differences did not occur by chance.¹⁶⁹

¹⁶⁷ Having international education is coded 1, while otherwise is coded 0.

¹⁶⁸ This refers to justices who received graduate training/second degree or the equivalent outside Canada.

¹⁶⁹ The chi-square test results are statistically significant at a five-percent level for both the unanimous cases and the nonunanimous cases. The tests are set up as 2 x 2 contingency tables, with votes cast for taxpayers and votes cast against taxpayers as the rows and justices who went to universities in Canada and justices who went to universities outside Canada as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

Figure 15: Voting Records of Justices With and Without International Education



To further examine the differences, the general question is broken down into three questions.¹⁷⁰ The first question is whether the relationship between votes cast by justices and their education in the U.S. occurred by chance.¹⁷¹ The second question is whether the relationship between votes cast by justices and their education in the U.K. occurred by chance.¹⁷² The third question is whether the relationship between votes cast by justices

¹⁷⁰ A set of three dummy variables for four categories is coded to represent whether justices went to universities in the U.S., the U.K. or France.

¹⁷¹ Justices educated in the U.S. are coded 1, while others are coded 0.

¹⁷² Justices educated in the U.K. are coded 1, while others are coded 0.

and their education in France occurred by chance.¹⁷³

Figure 16: Voting Records of Justices Divided By Locales of Education

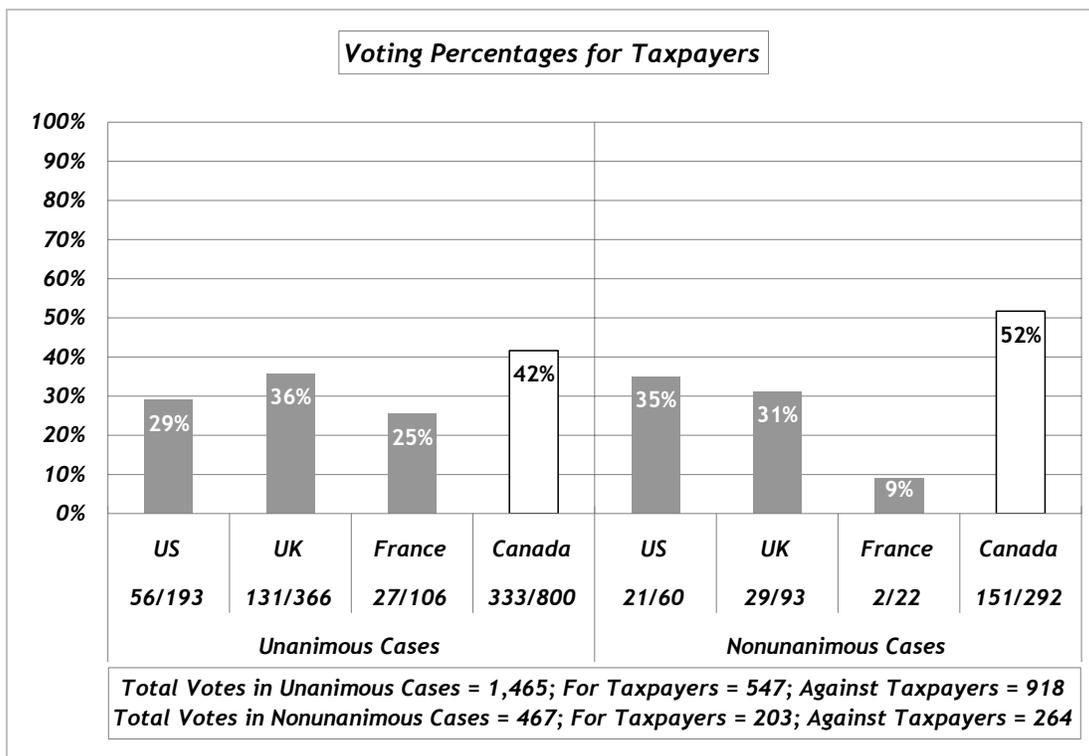


Figure 16 illustrates the finding that percentages of voting for taxpayers of justices who were educated in different geographical locales are quite different in both unanimous and nonunanimous cases. In both types of cases, justices who were educated only in Canada voted for taxpayers more than justices who undertook at least part of their education outside Canada. In fact, the differences did not occur by chance.¹⁷⁴

¹⁷³ Justices educated in France are coded 1, while others are coded 0.

¹⁷⁴ The chi-square test results are statistically significant at a five-percent level for both the unanimous cases and the nonunanimous cases. The tests are set up as 2 x 2 contingency tables, with votes cast for

3.2.9 Summary of Findings of Bivariate Analysis

The bivariate analysis uncovers voting patterns that were not chance occurrences.¹⁷⁵ Figure 17 summarizes the findings of the bivariate data analysis. The left column shows the bivariate relationships under investigation. The right column shows whether the relationships were chance occurrences in unanimous cases, nonunanimous cases or both.

Figure 17: Summary of Findings of the Bivariate Analysis

Relationship Between Votes Cast by Justices and	Not Chance Occurrences in
Prior Court Rulings [taxpayer wins or losses]	<i>Unanimous cases</i>
The Time of the Votes [post- <i>Charter</i> or pre- <i>Charter</i>]	<i>Unanimous cases</i>
The Political Party of the Prime Ministers who Appointed the Justices [Liberal Party or others]	<i>Unanimous cases</i>
The Region where the Justices Spent the Bulk of Their Pre-Supreme Court Careers [Ontario, Quebec, areas other than Ontario and Quebec]	
Judicial Experience in Lower Courts [trial, appellate, trial and appellate]	<i>Both unanimous and nonunanimous cases</i>
Law Teaching Experience [full-time, part-time]	<i>Both unanimous and nonunanimous cases</i>
Entrepreneurial Experience [justices founded their own law firms, others]	
International Education [U.S., U.K., France]	<i>Both unanimous and nonunanimous cases</i>

taxpayers and votes cast against taxpayers as the rows and justices who went to universities in the U.S, U.K. and France as the columns. One table is set up for unanimous cases, while another is set up for nonunanimous cases.

¹⁷⁵ In a way, the chi-square analysis is used as a very rough index of the nature of the relationship, even with the availability of the data of the entire population in the study period.

Among the bivariate relationships, only two were chance occurrences in the study period. The finding that voting patterns did not occur by chance raises the possibility that more nuanced data analysis could shed more light on the voting patterns. That paves the way for the multivariate regression analysis in Section 3.3.

3.3 Multivariate Analysis of Judicial Decision Making in Supreme Court of Canada Income Tax Cases

The multivariate analyses pick up where the bivariate analyses left off. The questions concerning the same variables asked in the bivariate analyses are asked, but the exploratory data analysis is performed in a multivariate context in this second step in determining the influences of socio-demographic characteristics of Supreme Court of Canada justices on their tax decisions. The questions are answered using the same merged dataset used in the bivariate analysis, but the questions are set up to identify causal explanations of judicial decision making. I call the questions multivariate questions.

Unlike the bivariate questions that ask whether voting patterns occurred by chance, the multivariate questions ask whether one variable is likely to influence the casting of the votes for taxpayers by justices, holding all other variables constant. Specifically, the multivariate questions ask:

- (1) whether the Supreme Court of Canada justices are more likely to vote for taxpayers in cases that were won by taxpayers in the prior court than in cases that were not won by taxpayers in the prior court, holding

all other variables constant;

- (2) whether the Supreme Court of Canada justices are more likely to vote for taxpayers in the post-*Charter* era than in the pre-*Charter* era, holding all other variables constant;
- (3) whether the Supreme Court of Canada justices who were appointed by Liberal Party prime ministers are more likely to vote for taxpayers than justices who were not appointed by Liberal Party prime ministers, holding all other variables constant;
- (4) whether the Supreme Court of Canada justices who spent a large part of their careers in Quebec are more likely to vote for taxpayers than justices who did not spend a large part of their careers in Quebec, holding all other variables constant;
- (5) whether the Supreme Court of Canada justices who were judges before their appointment to the Supreme Court of Canada are more likely to vote for taxpayers than justices who were not judges before, holding all other variables constant;
- (6) whether the Supreme Court of Canada justices who taught law before their appointment to the Court are more likely to vote for taxpayers than justices who did not teach law before, holding all other variables constant;
- (7) whether the Supreme Court of Canada justices who founded their own law firms are more likely to vote for taxpayers than justices who did

not found their own law firms, holding all other variables constant; and (8) whether the Supreme Court of Canada justices who went to universities outside Canada are more likely to vote for taxpayers than justices who did not go to universities outside Canada, holding all other variables constant.

Like the setup of the bivariate questions, the first two of the multivariate questions provide the context for the rest of the questions, with (1) serving as a proxy for the legal model, while (2) providing the temporal context for judicial decision making. The remaining multivariate questions deal with the relationships between socio-demographical characteristics of judges and their decisions.

The phrasing of the multivariate questions needs to be explained. The questions are phrased in the present tense, and it is in the “more likely or not” format. Although the answers to the questions are derived from multivariate analysis of historical data – records of what happened in the past, the assumption is that what happened in the past can provide hints on what will happen in the future, despite the fact that history does not repeat itself perfectly. That is why the questions are phrased as whether the Supreme Court of Canada justices *are more likely to* vote for taxpayers rather than whether the justices *will* vote for taxpayers as likelihood does not equate certainty. Phrasing the question in the “more likely or not” format signals the need for a basis for comparison. Therefore, all questions are phrased to include a comparative basis. For example, the last multivariate question is not simply whether Supreme Court of Canada justices who went to universities outside Canada are more likely to vote for taxpayers but whether justices

who went to universities outside Canada are more likely to vote for taxpayers *than justices who did not go to universities outside Canada*. It should be emphasized that the multivariate analysis examines one variable at a time while *holding all other variables constant*. The design is to examine the effect of one explanatory variable on the variable that needs to be explained in the presence of all other explanatory variables. The design is a better approximate to reality than the bivariate analysis, which only examines the relationship between two variables without acknowledging the presence of all other variables.

To conduct the multivariate analysis, probit regression analysis is used to analyze the merged dataset used in the bivariate analysis.¹⁷⁶ It is more convenient to think about the probit regression analysis in terms of the variables examined in the multivariate questions rather than the questions themselves as the variables are like shorthand versions of the questions. Like the bivariate questions, the eight multivariate questions examine the relationships between votes cast by Supreme Court of Canada justices and eight explanatory variables. They are (1) **Prior Taxpayer Win** – whether taxpayers won the cases in the prior court; (2) **Post-Charter Era** – whether the cases were decided in the post-*Charter* era; (3) **Political Ties** – whether the justices were appointed by Liberal

¹⁷⁶ Probit regression, like other multiple regressions, allows the testing of the power to explain a dependent variable by an independent variable while keeping all other independent variables unchanged. The `dprobit` procedure in Stata 8 is used with the `cluster` option for the analyses. The `dprobit` procedure produces probit regression for categorical variables with the `margins`, while the `cluster` option in a way identifies the voting records by each judge while generating robust standard errors. The use of the `cluster` option is to account for the fact that each judge voted more than once over a number of years and thus each judge's votes cast over time are assumed not to be independent. See Appendix I for `dprobit`'s outputs.

party prime ministers; (4) **Regional Ties** – whether the justices spent a large part of their careers in Quebec; (5) **Judicial Experience** – whether the justices were judges before they were appointed to the Supreme Court of Canada; (6) **Law Teaching Experience** – whether the justices taught law before; (7) **Entrepreneurial Experience** – whether the justices founded their own law firms before they were appointed to the Court; and (8) **International Education** – whether the justices went to universities outside Canada. Although two control variables – Prior Taxpayer Win and Post-*Charter* Era – are used, the focus of the modeling remains the exploration of the power of socio-demographic characteristics of Supreme Court of Canada justices in explaining their decision making in income tax cases. Similar to the explanation concerning the first two questions earlier, the two control variables are used to situate the analysis in the context of prior rulings and time. They are not the focus of the analysis.

The multivariate analysis is designed to generate three sets of information. First, the analysis shows how each explanatory variable fares as a possible explanation of judicial decision making in Supreme Court of Canada income tax cases. To do that, a **Full Model** is developed. Second, the analysis shows the relative importance of each decision-influencing variable in comparison with other decision-influencing variables. To do that, a **Reduced Model** is developed. Third, the analysis sketches out voting scenarios of the current Supreme Court of Canada. To do that, **Voting Scenarios** are developed.

The three sets of information generated by the Full Model, Reduced Model and the Voting Scenarios are designed to be viewed as one packet of information with three parts. The Full Model is to provide a sense of the influences of socio-demographic

characteristics of justices, the Reduced Model is to offer some caveats about the use of socio-demographic characteristics of justices as explanatory variables of judicial decision making, while the Voting Scenarios put the explanatory power of the socio-demographic variables to use. The main point here is that the findings of any of the three parts *alone* do not fully represent the contributions in advancing knowledge in judicial decision making that are made in this exploratory data analysis. Of course, the Voting Scenarios may provide the most revealing information about judicial decision making, but they are built on the information generated by the Full Model, and in evaluating the Full Model, the information generated by the Reduced Model has to be taken into consideration.

3.3.1 Full Model: Influences of Socio-demographic Characteristics of Supreme Court of Canada Justices on Decision Making in Income Tax Cases

The Full Model determines to what extent each of the eight explanatory variables influenced judicial decision making in Supreme Court of Canada income tax cases in 1920-2003, while taking into account the presence of all the other seven explanatory variables.¹⁷⁷ Figure 18 displays the outputs of the Full Model.

¹⁷⁷ Two probit regressions were run, one on votes in unanimous cases, while another on votes in nonunanimous cases. The y variable is the votes, while the x variables are the decision-influencing variables. The analysis takes into consideration that one Supreme Court justice voted more than once. The focus of the probit regression analysis is on the marginal change in probabilities – the change in probabilities as a result of a change in status of not having one socio-demographic characteristic to having the characteristic. See information on dF/dx in Appendix I.

Figure 18: Full Probit Model of Influences of Judicial Decision Making in Income Tax Cases

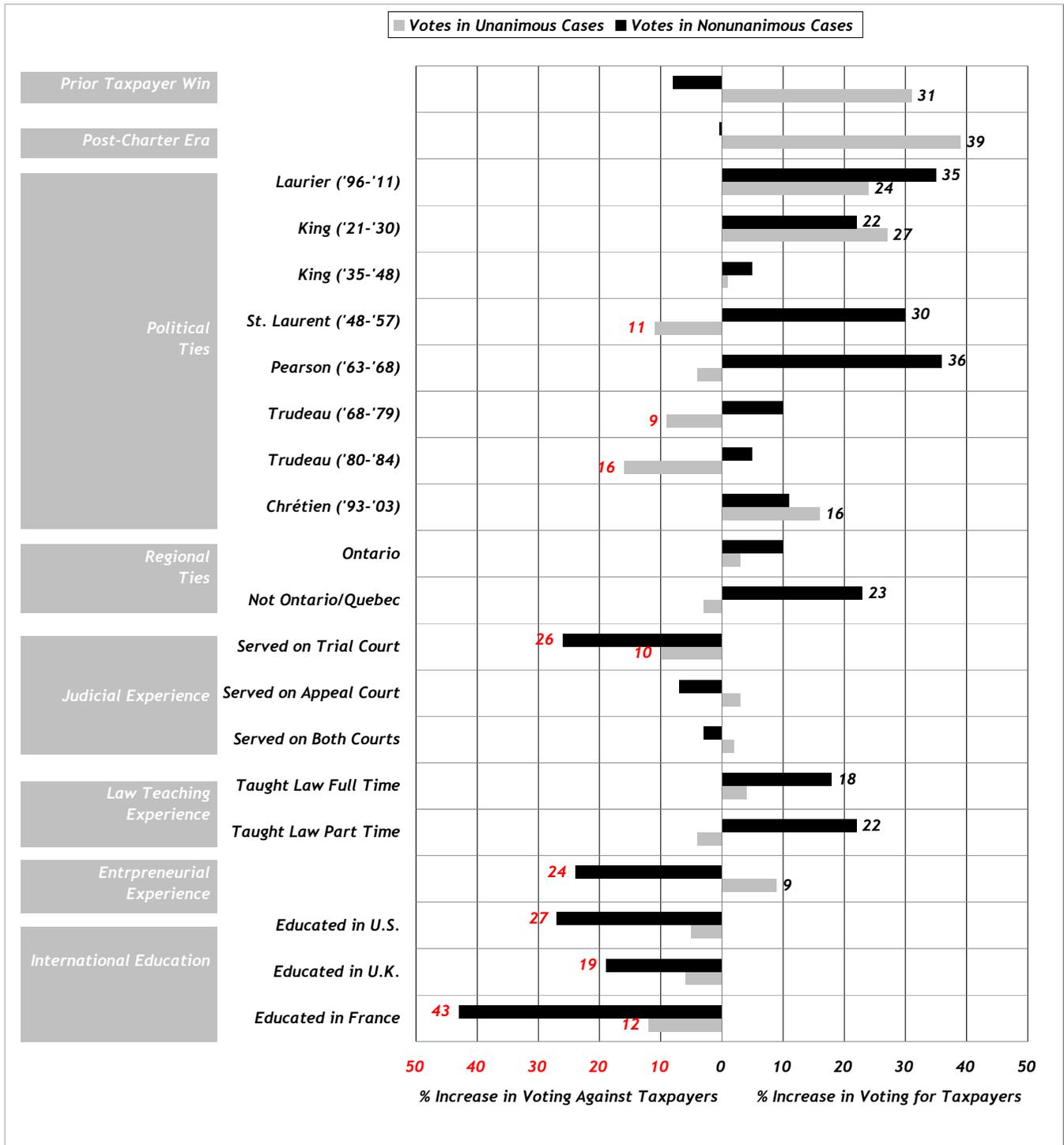


Figure 18 can be interpreted from left to right and then from top to bottom. The figure has a column of variable names on the far left and two grid-panels to the right of the column. The left column lists the main categories of the explanatory variables in grey shading, with the sub-categories, if any, next to them. Adjacent to the left column are the two grid-panels. The left grid-panel shows the percentage increase in voting against taxpayers and the right grid-panel shows the percentage increase in voting for taxpayers. The increases are shown in grey and black horizontal bars. The percentage increase refers to a change in the propensity to vote for taxpayers given a change in the status of a variable, for example, from a prior taxpayer loss to a prior taxpayer win as illustrated below. The grey horizontal bars represent votes cast in unanimous cases, while the black horizontal bars represent votes cast in nonunanimous cases. The length of the bars represents the magnitude of the percentage increases, with the data labels at the outside end of the bars showing the percentage changes that did not occur by chance.¹⁷⁸

The following parts of Section 3 from 3.3.1.1 to 3.3.1.9 present the findings as illustrated in Figure 18. To be clear, the findings of the multivariate exploratory data analysis should be interpreted as information to be used to refine future research questions. As the findings represent just another step in learning more about judicial decision making, future research is required to be performed based on the findings.

¹⁷⁸ The numbers represent marginal probabilities of variables that are significant at a five-percent level.

3.3.1.1 Prior Taxpayer Win and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Prior Taxpayer Win, one of the two control variables, represents whether taxpayers had won the cases in the prior court. As explained in Section 3.2.1, the variable serves as a proxy of the influence of the law in judicial decision making. The multivariate question for this variable is whether the Supreme Court of Canada justices are more likely to vote for taxpayers in cases that were won by taxpayers in the prior court than in cases that were not won by taxpayers in the prior court, holding all other variables constant.

The Full Model expands on the bivariate finding. The bivariate analysis shows that the relationship between votes cast by Supreme Court of Canada justices in unanimous cases and the prior rulings of the cases did not occur by chance but the relationship between votes in nonunanimous cases and prior rulings were chance occurrences. According to the Full Model, justices were about 31% more likely to vote for taxpayers in unanimous cases that taxpayers had won in the prior court than in unanimous cases that taxpayers had lost in the prior court in the study period, holding all other variables constant. The bivariate analysis hints that prior case outcomes did not have much influence on judicial decision making in nonunanimous cases. The Full Model confirms that.

In short, the Full Model suggests that the Supreme Court of Canada justices are more likely to vote for taxpayers in unanimous cases that were won by taxpayers in the

prior court than in unanimous cases that were not won by taxpayers in the prior court, holding all other variables constant. Even though the Supreme Court of Canada does not need to follow any precedent set by a lower court, the finding suggests that judges, even from different levels of courts, may be more likely to interpret the law in similar ways on legal issues that have less ambiguity in them. The finding makes sense because a proxy of the legal model is supposed to have an impact on judicial decision making in cases that Supreme Court of Canada justices did not find any legal ambiguity of the issues at hand. However, as *Prior Taxpayer Win* does not fully represent the legal model, more research in exploring the relationship between the legal model and judicial decision making is needed in the future.

3.3.1.2 Post-*Charter* Era and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Post-*Charter* era, the other control variable, represents whether the cases were decided after the enactment of the Charter in 1982. The multivariate question for this variable is whether the Supreme Court of Canada justices are more likely to vote for taxpayers in the post-*Charter* era than in the pre-*Charter* era, holding all other variables constant. As mentioned in Section 3.2.2, Ostberg and Wetstein have alluded to a possible *Charter* effect on judicial decision making in Canadian Tax cases.¹⁷⁹ Ostberg and

¹⁷⁹ *Supra note 101.*

Wetstein found that judges would likely be more pro-taxpayer in cases concerning income tax deductions and stock/estate taxes than in cases concerning sales tax. In explaining the finding, Ostberg and Wetstein said that “it appears that the justices on the post-Charter Canadian Court are more prone to favor the economic liberty claims of taxpayers who seek to protect their current income from taxation as opposed to taxation on future economic gains.”¹⁸⁰ The distinction between current and future income was not elaborated in detail.

The Full Model expands on the bivariate finding. The bivariate analysis shows that the relationship between votes cast by Supreme Court of Canada justices in unanimous cases and whether the cases were decided before or after the enactment of the *Charter* did not occur by chance but the relationship between votes in nonunanimous cases and the timing of the cases decided were chance occurrences. According to the Full Model, justices were about 39% more likely to vote for taxpayers in unanimous cases in the post-*Charter* era than in unanimous cases in the pre-*Charter* era in the study period, holding all other variables constant. However, there was little *Charter* effect on nonunanimous cases.

In short, the Full Model suggests that the Supreme Court of Canada justices are more likely to vote for taxpayers in unanimous cases that were decided in the Post-*Charter* era than in unanimous cases that were decided in the pre-*Charter* era, holding all other variables constant. The finding suggests that Supreme Court of Canada justices may

¹⁸⁰ *Ibid.* at 20-21.

be more likely to vote for taxpayers on legal issues with less ambiguity in recent decades than in earlier years. The finding is of a temporal nature. But whether there is indeed a *Charter* effect as suggested by Ostberg and Wetstein requires future research because there could be alternative explanations that are not included in this model. One example is that maybe the Ostberg-Wetstein *Charter* effect is just a reflection of the effects of the elimination of cases that lack merit since the mid-1970s.

3.3.1.3 Political Ties and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Political Ties, one of the socio-demographic variables, represents whether the Supreme Court of Canada justices were appointed by Liberal Party prime ministers. The multivariate question is whether the Supreme Court of Canada justices who were appointed by Liberal Party prime ministers are more likely to vote for taxpayers than justices who were not appointed by Liberal Party prime ministers, holding all other variables constant. In prior quantitative research on judicial decision making in the Supreme Court of Canada, the political ties to the Liberal Party were found to have influenced some justices to cast “liberal” votes for the government in a conflict between business and government at times but not all the time, as shown in the literature review in Section 2.

Like in the bivariate analysis, the variable is broken down into eight dummy variables, each represents a period of Liberal government. The details of the dummy

variables are presented earlier in Section 3.2.3. The use of the set of dummy variables allows the multivariate analysis to answer questions on justices appointed by a particular prime minister. For example, the use of the dummy variable on Chrétien can answer the question on whether Chrétien-appointed justices were more likely to vote for taxpayers than justices who were appointed by non-Liberal Party prime ministers.

The Full Model expands on the bivariate finding. The bivariate analysis shows that the relationship that votes cast by justices and their political ties did not occur by chance. According to the Full Model, justices appointed by some Liberal Party prime ministers were more likely to vote for taxpayers than justices appointed by other prime ministers. Justices appointed by Laurier were about 24% more likely to vote for taxpayers in unanimous cases than justices appointed by non-Liberal Party prime ministers and were about 35% more likely to vote for taxpayers in nonunanimous cases than justices appointed by non-Liberal Party prime ministers, holding all other variables constant. Justices appointed by King in his first two terms were about 27% more likely to vote for taxpayers in unanimous cases than justices appointed by non-Liberal Party prime ministers and were about 22% more likely to vote for taxpayers in nonunanimous cases than justices appointed by non-Liberal Party prime ministers, holding all other variables constant. Justices appointed by Chrétien were about 16% more likely to vote for taxpayers in unanimous cases than justices appointed by non-Liberal Party prime ministers, holding all other variables constant. Justices appointed by Pearson were about 36% more likely to vote for taxpayers in nonunanimous cases than justices appointed by

non-Liberal Party prime ministers, holding all other variables constant.

However, according to the Full Model, the fact that the justices were appointed by a Liberal Party prime minister did not necessarily mean that the justices were more likely to vote for taxpayers than justices appointed by other prime ministers in the study period, holding all other variables constant. Justices appointed by St. Laurent were about 11% more likely to vote against taxpayers in unanimous cases than justices appointed by non-Liberal Party prime ministers, even though these St. Laurent justices were 30% more likely to vote for taxpayers in nonunanimous cases than justices appointed by non-Liberal Party prime ministers. Justices appointed by Trudeau in his first term were about 9% more likely to vote against taxpayers in unanimous cases than justices appointed by non-Liberal Party prime ministers, while justices appointed by Trudeau in his second term were about 16% more likely to vote against taxpayers in unanimous cases than justices appointed by non-Liberal Party prime ministers.

In short, the Full Model suggests that it is inaccurate to say categorically that justices appointed by Liberal Party prime ministers are definitely more likely to vote one way or another, even though some prior findings said justices appointed by Liberal Party prime ministers tend to rule for the government in legal disputes between business and the government. As different justices appointed by different Liberal Party prime ministers may vote differently, no sweeping conclusion should be made on the influences of the political ties of the justices. The finding resonates with Schneider's finding. He said "appointment to the bench by Democratic Presidents was correlated to decisions in the

taxpayer's favor in both the appellate and trial level data sets. This finding contradicts the traditional expectation that judges appointed by Republican Presidents, which judges are generally more conservative than those appointed by Democratic Presidents, are more likely to render pro-taxpayer decisions."¹⁸¹

One data issue arises from the multivariate analysis on Political Ties. One wonders whether there is another variable better representing the political affiliations of Supreme Court of Canada justices. As the political agenda of a political party evolves over time, grouping all Liberal Party prime ministers under the umbrella of one political banner may not be appropriate. Also, the use of the political party of the prime ministers who appointed Supreme Court of Canada justices as a proxy of the political leanings of the justices may not be entirely appropriate in Canada. As Canadian justices do not need to undergo essentially open political vetting in the equivalent of a Congressional hearing, there is no way to verify whether the political leanings of the justices and the prime ministers who appointed them match. Thus, more research is required to identify another variable to approximate Political Ties of the justices in the future.

3.3.1.4 Regional Ties and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Regional Ties, another socio-demographic variable, represents whether Supreme

¹⁸¹ See Using the Social Background Model, *supra* note 108 at 204.

Court of Canada justices built her or his careers in Ontario, areas other than Ontario and Quebec or Quebec, as explained in Section 3.2.4. The multivariate question for the variable is whether the Supreme Court of Canada justices who spent a large part of their careers in Quebec are more likely to vote for taxpayers than justices who did not spend a large part of their careers in Quebec, holding all other variables constant. Prior research found Quebec justices to be more likely to vote for the government in economic cases than others at times but not all the time.

Although the bivariate analysis on Regional Ties indicates that the relationship between votes cast by Supreme Court of Canada justices and their Regional Ties are chance occurrences, the variable is not excluded from the multivariate analysis for two reasons. First, it is hard to make the sweeping conclusion that Supreme Court of Canada justices were not influenced to any extent by where they spent the bulk of their careers before being appointed to the Court just based on the bivariate analysis alone. Second, considering Regional Ties together with other variables may find something that is not found in the bivariate analysis. Indeed, the Full Model finds something that the bivariate analysis has not found. According to the Full Model, justices who built their careers in areas other than Ontario and Quebec were about 23% more likely to vote for taxpayers in nonunanimous cases than justices who built their careers in Quebec in the study period, holding all other variables constant. Regional ties to Ontario had little influence.

In short, the Full Model suggests that Supreme Court of Canada justices who spent a large part of their careers in areas other than Ontario and Quebec are more likely

to vote for taxpayers in nonunanimous cases than justices who did not spend a large part of their careers in those areas, holding all other variables constant. The finding is somewhat consistent with prior findings that Quebec judges may be more likely to vote for the government than non-Quebec judges in economic-related cases. But the question on the use of regional division arises. Future research is required to determine whether finer geographical division may generate more insights in the multivariate analysis.

3.3.1.5 Judicial Experience and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Judicial Experience, one of three socio-demographic variables about prior professional experience, represents whether Supreme Court of Canada justices sat on any or both levels of the lower courts – the trial courts and appellate courts. The multivariate question for the variable is whether the Supreme Court of Canada justices who were judges before their appointment to the Supreme Court of Canada are more likely to vote for taxpayers than justices who were not judges before, holding all other variables constant.

The Full Model expands on the bivariate finding of Section 3.2.5. The bivariate analysis shows that the relationship between votes cast by Supreme Court of Canada justices and their prior judicial experience, or the lack of it, did not occur by chance. According to the Full Model, justices who were trial judges before were about 10% more likely to vote against taxpayers in unanimous cases than justices who had no prior

judicial experience in the study period and about 26% more likely to vote against taxpayers in nonunanimous cases than justices who had no prior judicial experience in the study period, holding all other variables constant. Other types of judicial experience had little significant impact on judicial decision making.

In short, the Full Model suggests that the Supreme Court of Canada justices who were trial judges before their appointment to the Supreme Court of Canada are more likely to vote against taxpayers than justices who were not judges before, holding all other variables constant. As judges on the trial level mainly resolve questions of fact, one conjecture based on the multivariate finding is that having such prior training in resolving questions of fact may lead judges to focus on the facts in the income tax cases and subsequently more likely to rule against taxpayers. But the reasoning of the conjecture seems strained. As there could be other reasons behind the finding, more research on the linkage between voting pattern and judicial experience is needed.

3.3.1.6 Law Teaching Experience and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Law Teaching Experience, one of three socio-demographic variables about prior professional experience, represents whether Supreme Court of Canada justices taught law on a full-time basis or part-time basis. The multivariate question for the variable is whether the Supreme Court of Canada justices who taught law before their appointment to the Court are more likely to vote for taxpayers than justices who did not teach law

before, holding all other variables constant.

The Full Model expands on the bivariate finding of Section 3.2.6. The bivariate analysis shows that the relationship between votes cast by Supreme Court of Canada justices and their prior law teaching experience did not occur by chance. According to the Full Model, justices who taught law on a full-time basis before were about 18% more likely to vote for taxpayers in nonunanimous cases than justices who did not teach law before, while justices who taught law on a part-time basis before were about 22% more likely to vote for taxpayers than justices who did not teach law before.

In short, the Full Model suggests that the Supreme Court of Canada justices who taught law before their appointment to the Court are more likely to vote for taxpayers than justices who did not teach law before, holding all other variables constant. The finding resonates with Schneider's finding. He said appellate "[j]udges who had come from teaching law were associated with decisions in the taxpayer's favor unless they were Protestant."¹⁸² One conjecture based on the finding is that law teaching focuses on questions of law, and having such prior training may lead judges to focus on questions of law in the income tax cases, and when such cases have a lot of legal ambiguity in them, these judges may be more willing to interpret the law in favor of the taxpayers. This finding and the previous finding on Judicial Experience raise intriguing unanswered questions. More research is needed to understand why Supreme Court of Canada justices who were trial judges are more likely to vote against taxpayers but Supreme Court of

¹⁸² See Using the Social Background Model, *supra* note 108 at 238.

Canada justices who were law teachers are more likely to vote for taxpayers.

3.3.1.7 Entrepreneurial Experience and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

Entrepreneurial Experience, one of three socio-demographic variables about prior professional experience, represents whether Supreme Court of Canada justices founded their own law firms before their appointment to the Supreme Court of Canada. The multivariate question for the variable is whether the Supreme Court of Canada justices who founded their own law firms are more likely to vote for taxpayers than justices who did not found their own law firms, holding all other variables constant.

Although the bivariate analysis in Section 3.2.7 indicates that the relationship between votes cast by Supreme Court of Canada justices and whether they founded their law firms were chance occurrences, the variable is not dropped from the modeling. As the entrepreneurial experience variable serves as a proxy for the successful legal career of the justices, albeit only one aspect of it, excluding it would render the multivariate analysis without any representation of a career path that most justices had undertaken.¹⁸³ Moreover, considering the variable with other variables may uncover something that is not found in the bivariate analysis. Indeed, the Full Model finds something that is not

¹⁸³ Using a dummy variable to represent whether the justices were lawyers before is not an option as most justices were lawyers. The one-sided pattern is of little statistical use because of a lack of variation, especially in multivariate analysis.

found in the bivariate analysis. According to the Full Model, justices who founded their own law firms were about 9% more likely to vote for taxpayers in unanimous cases than other justices but about 24% more likely to vote against taxpayers in nonunanimous cases than other justices.

In short, the Full Model suggests that the Supreme Court of Canada justices who founded their own law firms are more likely to vote for taxpayers than justices who did not found their own law firms in unanimous cases but are less likely to vote for taxpayers than others in nonunanimous cases, holding all other variables constant. The conflicting outcome definitely requires more probing. One conjecture is that justices with entrepreneurial experience may be more likely to have subscribed to ideas of free market economics than other justices. As justices with such entrepreneurial experience might have preferred less state interference in individual affairs, the question is whether justices who founded their own law firms were more likely to vote for taxpayers than other justices. But the above idea does not explain the pro-government attitude of justices with entrepreneurial experience in nonunanimous cases. More research is required to understand the apparently conflicting results.

3.3.1.8 International Education and Judicial Decision Making in Supreme Court of Canada Income Tax Cases

International Education, a socio-demographic variable, represents whether Supreme Court of Canada justices went to universities in the U.S., U.K. or France. The

multivariate question for the variable is whether the Supreme Court of Canada justices who went to universities outside Canada are more likely to vote for taxpayers than justices who did not go to universities outside Canada, holding all other variables constant.

The Full Model expands on the bivariate finding of Section 3.2.8. The bivariate analysis shows that the relationship between votes cast by Supreme Court of Canada justices and their international education, or their lack of it, did not occur by chance. According to the Full Model, justices who were educated outside Canada were more likely to vote against taxpayers than justices who only went to universities in Canada in the study period, holding all other variables constant. Justices who went to universities in the U.S. were about 27% more likely to vote against taxpayers in nonunanimous cases than justices who only went to universities in Canada. Justices who went to universities in the U.K. were about 19% more likely to vote against taxpayers in nonunanimous cases than justices who only went to universities in Canada. Justices who went to universities in France were about 43% more likely to vote against taxpayers in nonunanimous cases than justices who only went to universities in Canada. In addition, justices who went to universities in France were also about 12% more likely to vote against taxpayers in unanimous cases than justices who only went to universities in Canada.

In short, the Full Model suggests that the Supreme Court of Canada justices who went to universities outside Canada are more likely to vote against taxpayers than justices who did not go to universities outside Canada, holding all other variables constant. One

conjecture is that justices who went to universities outside Canada are more sympathetic to the welfare state and thus government spending because of their exposure in Europe and the U.S.; as one goal of taxation is to raise government revenue and another goal of taxation is to redistribute income justices who are more sympathetic to the idea of having a welfare state are more likely to vote against taxpayers.

However, a lot more data are required to confirm the extent of such influences of education outside Canada on judicial decision making. For example, the strong showing on the influences of a French education raises a data issue. Only three justices went to universities in France – Abbott, Bastarache and Le Dain. Among the three, Abbott's voting records dominated because he cast the most votes among all 57 justices in the study. Of his 103 votes, Abbott cast 90 votes against taxpayers but only 13 votes for taxpayers. Comparing that record against Bastarache's and Le Dain's shows that the French connection may well only be the Abbott connection. Bastarache cast eight of his 24 against taxpayers, while Le Dain cast his one vote against taxpayers.

Still, rerunning the probit regressions without Abbott does not change the outcome that International Education is a variable that could explain justices' propensity to vote for the government. As a result, despite the limited availability of data, it is still considered informative to break down the International Education variable into three geographical groups in the current analysis with hopes that future studies may indeed find more clues about the presence or absence of influences of International Education on judicial decision making.

3.3.1.9 Summary of the Outcomes of the Full Model

In sum, the Full Model generates information on voting propensities of Supreme Court of Canada justices based on income tax cases decided in 1920-2003. Figure 19 summarizes the findings. The left column shows the variable under examination, the middle column points out the voting propensities, while the right column shows in what type of cases the voting propensities are likely to occur.

Figure 19: Summary of Findings of the Probit Regression Analysis

Variable	Voting Propensity	Case Type
Prior Taxpayer Win	<i>More likely to vote for taxpayers who had won in the prior court than taxpayers who had lost in the prior court</i>	<i>Unanimous</i>
Post-Charter Era	<i>More likely to vote for taxpayers in the post-Charter era than in the pre-Charter era</i>	<i>Unanimous</i>
Political Ties	Justices appointed by Liberal Party prime ministers <i>may be more likely to vote for or against taxpayers</i> than those appointed by other prime ministers	<i>Unanimous & Nonunanimous</i>
Regional Ties	Justices from areas other than Ontario and Quebec are <i>more likely to vote for taxpayers</i> than justices from Quebec	<i>Nonunanimous</i>
Judicial Experience	Justices who were trial judges are <i>more likely to vote against taxpayers</i> more than justices who were not judges	<i>Unanimous & Nonunanimous</i>
Law Teaching Experience	Justices who taught law before are <i>more likely to vote for taxpayers</i> than justices who did not teach law before	<i>Unanimous & Nonunanimous</i>
Entrepreneurial Experience	Justices who founded their own law firms are <i>more likely to vote for/against taxpayers</i> than justices who did not do so	<i>Unanimous/ Nonunanimous</i>
International Education	Justices who attended universities outside Canada are <i>more likely to vote against taxpayers</i> than justices who were educated only in Canada	<i>Unanimous & Nonunanimous</i>

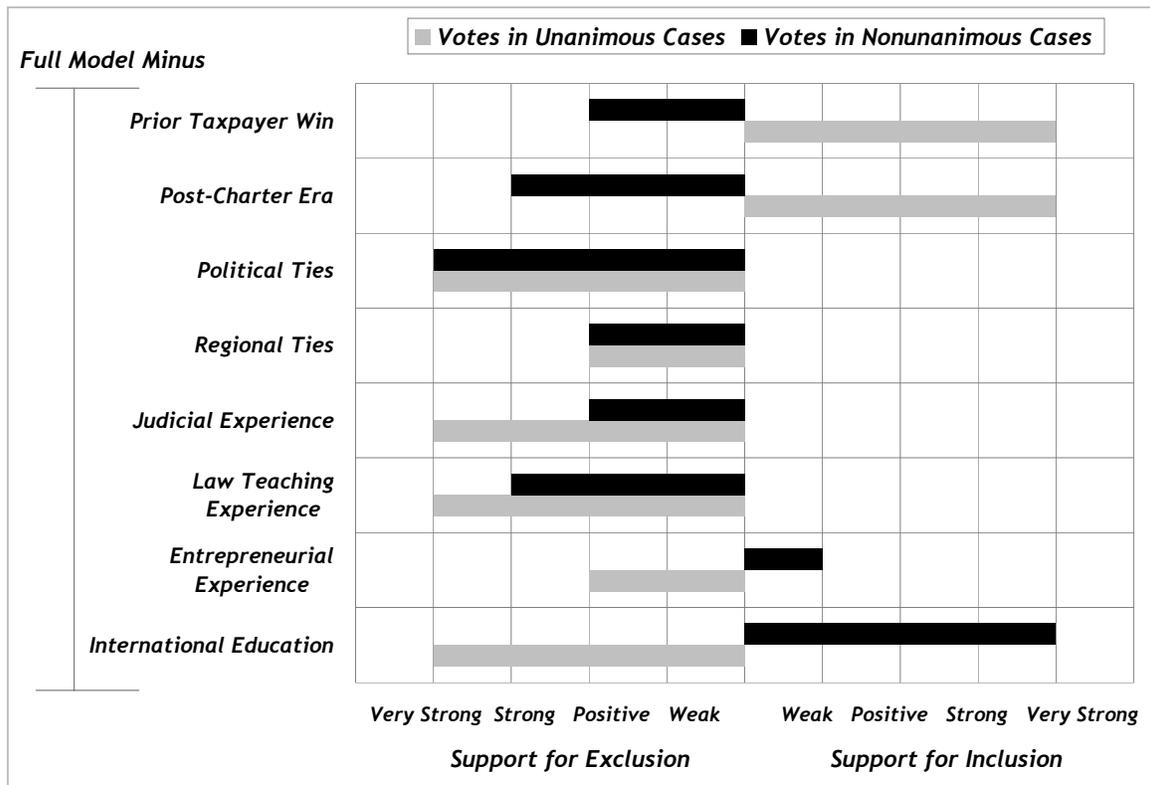
As a crude summary, Supreme Court of Canada justices who are more likely to vote for taxpayers may include those who taught law before, and in cases with a lot of

legal ambiguity, those who worked outside Ontario and Quebec. Supreme Court of Canada justices who are more likely to vote against taxpayers may include those who attended universities outside Canada and those who served as trial judges.

3.3.2 Reduced Model: How Important Was Each of the Decision-Influencing Variables?

The Full Model explores the influences on judicial decision making by all the explanatory variables together, and the model does not treat one variable differently from another. Knowing the relative importance of the variables in influencing judicial decision making is useful. One way to have a sense of that is to fit two models for each variable – one with the variable and one without the variable – and compare the two. Figure 20 shows the findings of the comparison between the Full Model (that has all the variables) and the Reduced Models (that has one less variable in each run).

Figure 20: Importance of Explanatory Variables



In terms of layout, the absent variable in a particular run is identified on the left side of the figure. For modeling purpose, variables that feature sub-categories like Political Ties or Regional Ties, are collapsed into one main category/variable.¹⁸⁴ To the

¹⁸⁴ The fitstat procedure in Stata 8 is used in comparing the Full Model and the Reduced Models. Two issues arose. First, fitstat uses the mean of all variables other than the one in comparison in each individual run. The mean of categorical variables coded in 0 or 1 does not make a lot of sense. For example, as Post-Charter Era is coded 1 for cases decided in the post-Charter era and 0 for cases decided in the pre-Charter era, a mean of 0.5 does not make sense for the categorical variable because no case was decided between the post-Charter era and the pre-Charter era. To avoid the 0.5 problem, each categorical variable has to be specified as 1 or 0 in each individual run. Second, and more importantly, some variables are represented by a set of dummy variables. Specifying all combinations of them can make the model comparison quite

right of the variable names are two grid-panels with horizontal bars in grey and black. The outcomes of each run of a Reduced Model for unanimous cases are represented by grey horizontal bars, while those of nonunanimous cases are represented by black horizontal bars. The left grid-panel shows the level of support for excluding the variable from the Full Model, while the right grid-panel shows the level of support for including the variable in the Full Model. There are four different levels of support for inclusion or exclusion, ranging from weak to very strong.¹⁸⁵

In terms of interpretation, a variable that is tagged with very strong support for exclusion could be seen as having less impact in the Full Model but it does not mean that the variable should be dropped from the modeling. All variables are needed to build a model that captures some aspects of the complexity of judicial decision making. In a sense, all variables are important. The labels of “Support for Exclusion” and “Support for Inclusion” only refer to outcomes of a hypothetical comparison between a Full Model and a Reduced Model that explores the relative degree of importance of each variable. The findings can be listed as follows:

cumbersome. For a cleaner look at the comparison between a Full Model and each Reduced Model, a strategic decision was made to collapse the sub-categories into the main category, and the collapsed variable is used.

¹⁸⁵ The levels of support for exclusion and inclusion are based on Bayesian Information Criterion. Adrian Raftery is widely cited as the proponent of the model selection approach. See Adrian Raftery, *Bayesian Model Selection in Social Research* (1995) 25 *Sociological Methodology* 111. Scott Long operationalizes it in Stata. See J. Scott Long and Jeremy Freese, *Regression Models for Categorical Dependent Variables Using Stata*. Revised Edition (College Station, TX: Stata Press, 2003) at 94-95.

- Prior Taxpayer Win is very important in modeling voting patterns in unanimous cases but is not important in modeling voting patterns in nonunanimous cases;
- Post-*Charter* Era is very important in modeling voting patterns in unanimous cases but is even less important than Prior Taxpayer Win in modeling voting patterns in nonunanimous cases;
- Political Ties is very unimportant in modeling voting patterns in both unanimous and nonunanimous cases;
- Regional Ties is unimportant in modeling voting patterns in both unanimous and nonunanimous cases;
- Judicial Experience is not important at all in modeling voting patterns in unanimous cases while it is less unimportant in modeling voting patterns in nonunanimous cases. The only difference between Law Teaching Experience and Judicial Experience is the level of unimportance in modeling voting patterns in nonunanimous cases;
- Entrepreneurial Experience is unimportant in modeling voting patterns in unanimous cases but has some importance in modeling voting patterns in nonunanimous cases; and
- International Education, which has extreme behavior, is not important at all in modeling voting patterns in unanimous cases but is very important in modeling nonunanimous cases.

Figure 19 makes four points. First, the variables that could be also called legal variables because of the presence of a legal dimension of what they represent – Prior Taxpayer Win and Post-*Charter* Era – are a lot more important in modeling voting patterns in unanimous cases than voting patterns in nonunanimous cases. Second, socio-demographic characteristics of Supreme Court of Canada justices are a lot less important in modeling voting patterns in unanimous cases than in nonunanimous cases. Political Ties, Judicial Experience, Law Teaching Experience and International Education are not important in modeling voting patterns in unanimous cases. Third, International Education is very important in modeling voting patterns in nonunanimous cases. Fourth, Political Ties as an explanatory variable may not be as important as what prior studies said it is.

3.3.3 Voting Scenarios of Supreme Court of Canada Justices in Income Tax Cases Based on the Full Model and Reduced Model

One weakness of prior quantitative studies on judicial decision making is that they were mainly retrospective rather than prospective in nature as they were designed mainly to explain judicial behavior in the past rather than to predict judicial behavior in the future.¹⁸⁶ To counter the weakness, the outcomes of the Full Model and the Reduced

¹⁸⁶ For a recent discussion on the retrospective nature of quantitative studies on judicial decision making in the U.S., see Theodore W. Ruger, Pauline T. Kim, Andrew D. Martin, and Kevin M. Quinn, “Essay: The Supreme Court Forecasting Project: Legal and Political Science Approaches to Predicting Supreme Court Decisionmaking” (2004) 104 Colum. L. Rev. 1150 at 1153–1154.

Model are used to develop simulated voting scenarios of Supreme Court of Canada justices.

Two conclusions of the Full Model and the Reduced Model drive the development of simulated voting scenarios. First, the legal variables – Prior Taxpayer Win and Post-*Charter* Era – are very important in modeling voting patterns in income tax cases with less legal ambiguity. Second, one particular socio-demographic characteristic of Supreme Court of Canada justices – International Education – is very important in modeling voting patterns in income tax cases with more legal ambiguity. Putting the two conclusions together yields the following proposition: Understanding the legal environment could shed light on decision making in cases with less legal ambiguity, but in order to examine cases with more legal ambiguity understanding the intellectual formation years of justices could be a fruitful start.

In accordance with the proposition, two sets of simulated voting scenarios are developed. First, socio-demographic composites of justices ranging from the most pro-government to the most pro-taxpayer are used to generate eight voting scenarios. Second, the socio-demographic profiles of the Supreme Court of Canada justices as of 2005 are used to generate four voting scenarios. The simulated voting patterns only show how justices with certain socio-demographic backgrounds may vote rather than how they will vote.

3.3.3.1 Voting Scenarios of Composite Supreme Court of Canada Justices

The purpose in generating voting scenarios of composite Supreme Court of Canada justices is to illustrate a wide range of possible voting patterns of justices with different hypothetical socio-demographic characteristics. The voting scenarios provide a sense of how justices with widely varied socio-demographic profiles may behave. It is important to stress that the justices appeared in the voting scenarios are composites. Therefore, their profiles may not fit the actual justices depicted in the merged dataset used for analysis in this section. In fact, few composite profiles match the profiles of real Supreme Court of Canada justices in the study period. The voting scenarios for composite Supreme Court of Canada justices are generated for unanimous cases and nonunanimous cases with and without prior taxpayer win in pre-*Charter* era and post-*Charter* era.

Figure 21 shows simulated voting patterns in unanimous cases with prior taxpayer win in pre-*Charter* era, while Figure 22 shows simulated voting patterns in unanimous cases with prior taxpayer loss in pre-*Charter* era. For these two figures the key of interpretation is to compare them in light of their different case types.

Figure 21: Voting Scenario I

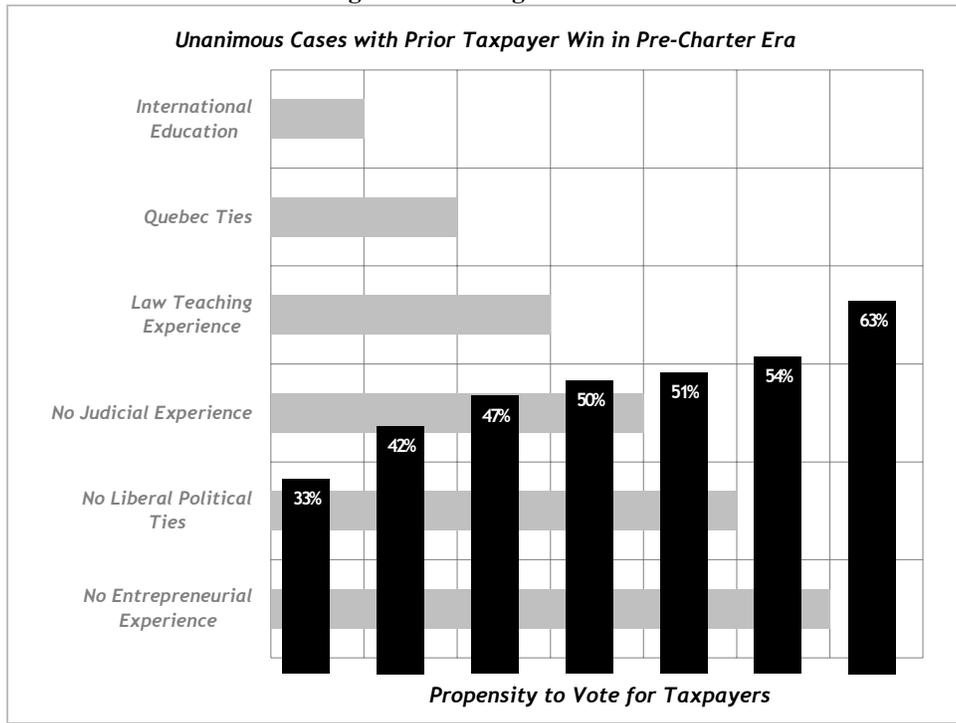
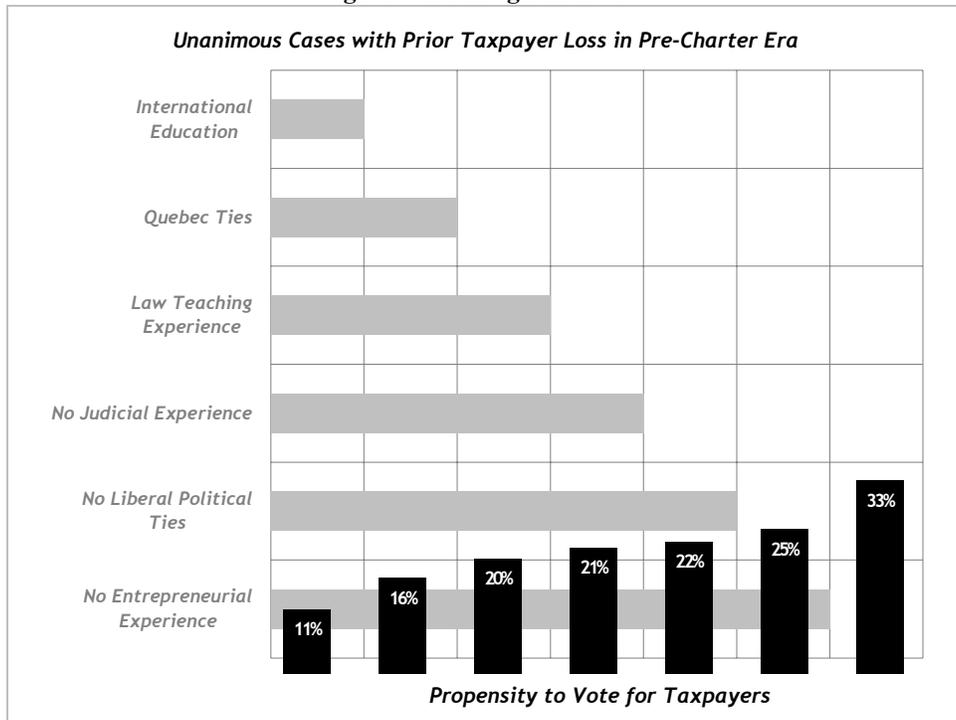


Figure 22: Voting Scenario II



In terms of the layout of a voting scenario chart, the left side of the chart lists the names of six socio-demographic characteristics of justices. To the right of the list is a grid-panel with six rows and seven columns. In the grid-panel, the grey horizontal shading of the rows represents the presence of a socio-demographic characteristic, while the black vertical bars of the columns represent the propensity to vote for taxpayers, with the percentage in white placed at the inside end of the vertical bars. If the focus is placed on the first column to the left, a move to the adjacent column to its right will represent the elimination of one socio-demographic variable as representing by the elimination of the grey shading in the top cell, and the change leads to a change in the voting propensity to vote for taxpayers as represented by a taller black vertical bar.

In Figure 21 the first black vertical bar to the left represents a 33% propensity to vote for taxpayers for composite justices who went to universities outside Canada, built their careers in Quebec, taught law before, were not judges, were not appointed by Liberal Party prime ministers and did not found their own law firms. The adjacent black vertical bar represents a 42% propensity to vote for taxpayers for a different group of composite justices. The increase in voting propensity to vote for taxpayers is due to the different socio-demographic profiles of the composite justices.

The two groups of composite justices differ in one regard – International Education. Therefore, the interpretation is based on that. The two groups of justices have many socio-demographic characteristics in common. They all built their careers in Quebec, taught law before, were not judges, were not appointed by Liberal Party prime

ministers and did not found their own law firms. The only difference is that one group of justice went to universities outside Canada, while another group did not do so. The difference led to different voting propensities to vote for taxpayers. Of the two groups of justices, the group who did not go to universities outside Canada is more likely to vote for taxpayers than the group who went to universities outside Canada. According to Voting Scenario I, the former group of justices has a 42% probability of voting for taxpayers, compared with 33% of the latter group.

Comparing Voting Scenario I and Voting Scenario II, both are about unanimous cases in the pre-*Charter* era, shows that composite justices are a lot more likely to vote for taxpayers in cases that taxpayers had won in the prior court than in cases that taxpayers had lost in the prior court. The highest propensity to vote taxpayers in cases that taxpayers had won in the prior court is 63% for composite justices who went to universities only in Canada, built their careers in areas outside Quebec, did not teach law, were judges, were appointed by Liberal Party prime ministers and founded their law firms. The highest propensity to vote taxpayers in cases that taxpayers had lost in the prior court is only 33% for the same composite justices. The propensity to vote for taxpayers ranges from 33% to 63% in cases that taxpayers had won in the prior court but 11% to 33% in cases that taxpayers had lost in the prior court. Figure 23 and 24 tell the story in the post-*Charter* era.

Figure 23: Voting Scenario III

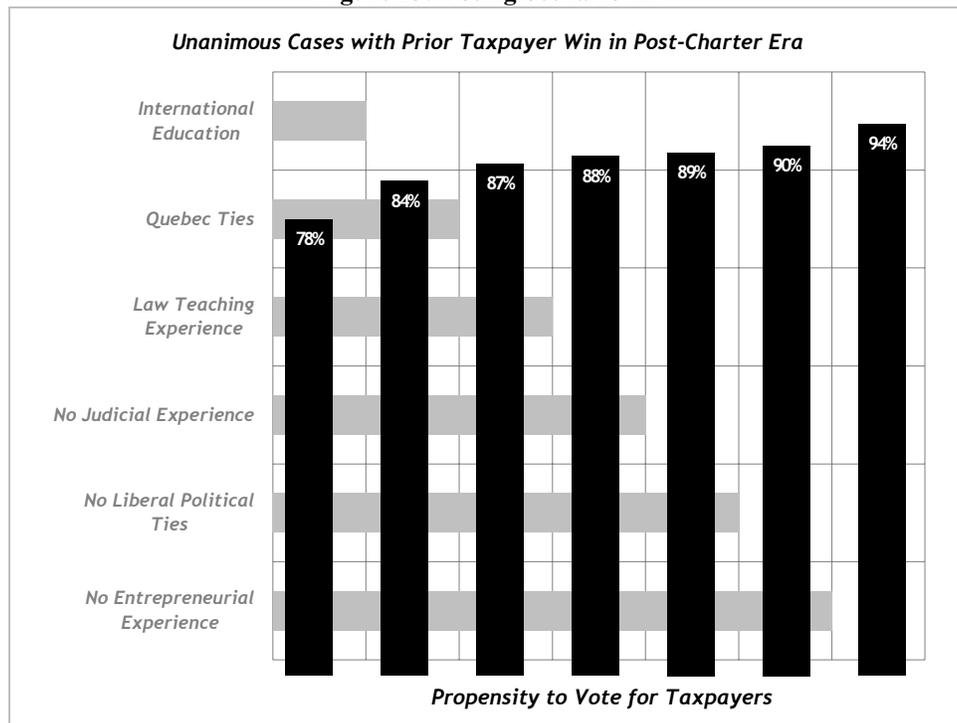
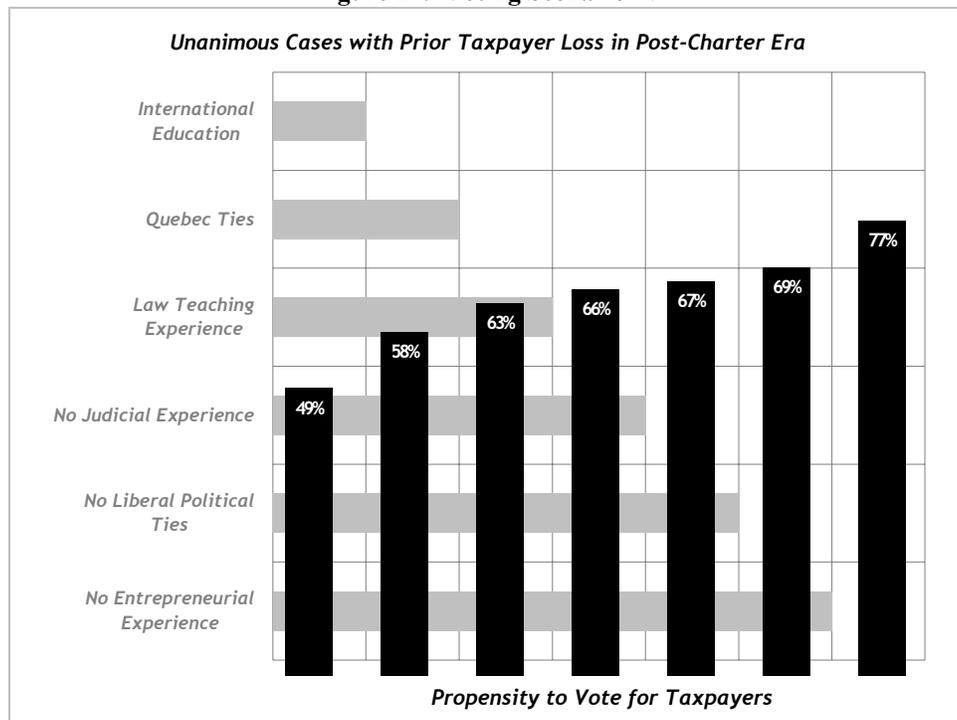


Figure 24: Voting Scenario IV



Comparing Voting Scenario III and Voting Scenario IV, both of which deal with unanimous cases in the post-*Charter* era, shows that composite justices are also a lot more likely to vote for taxpayers in cases that taxpayers had won in the prior court than in cases that taxpayers had lost in the prior court. The highest propensity to vote taxpayers in cases that taxpayers had won in the prior court is 94% for composite justices who went to universities only in Canada, built their careers in areas outside Quebec, did not teach law before, were judges, were appointed by Liberal Party prime ministers and founded their own law firms. The highest propensity to vote taxpayers is 77% for the same composite justices in cases that taxpayers had lost in the prior court. The propensity to vote for taxpayers ranges from 78% to 94% in cases that taxpayers had won in the prior court and 49% to 77% in cases that taxpayers had lost in the prior court. It is informative to note that in general the propensity to vote for taxpayers in unanimous cases is higher in the post-*Charter* era than in the pre-*Charter* era.

In addition to comparing simulated voting scenarios in cases that taxpayers had won and lost in the prior court and simulated voting scenarios in cases in the pre-*Charter* and post-*Charter* era, comparisons should be made between voting patterns in unanimous cases and nonunanimous cases. Given the spurious link between whether a case is decided unanimously and what the voting pattern looks like, the terms “unanimous cases” and “nonunanimous cases” are used here to denote the nature of the cases – with less or more legal ambiguity – rather than their outcomes. Figure 25-28 show simulated voting patterns in nonunanimous cases in the pre-*Charter* era and the post-*Charter* era.

Figure 25: Voting Scenario V

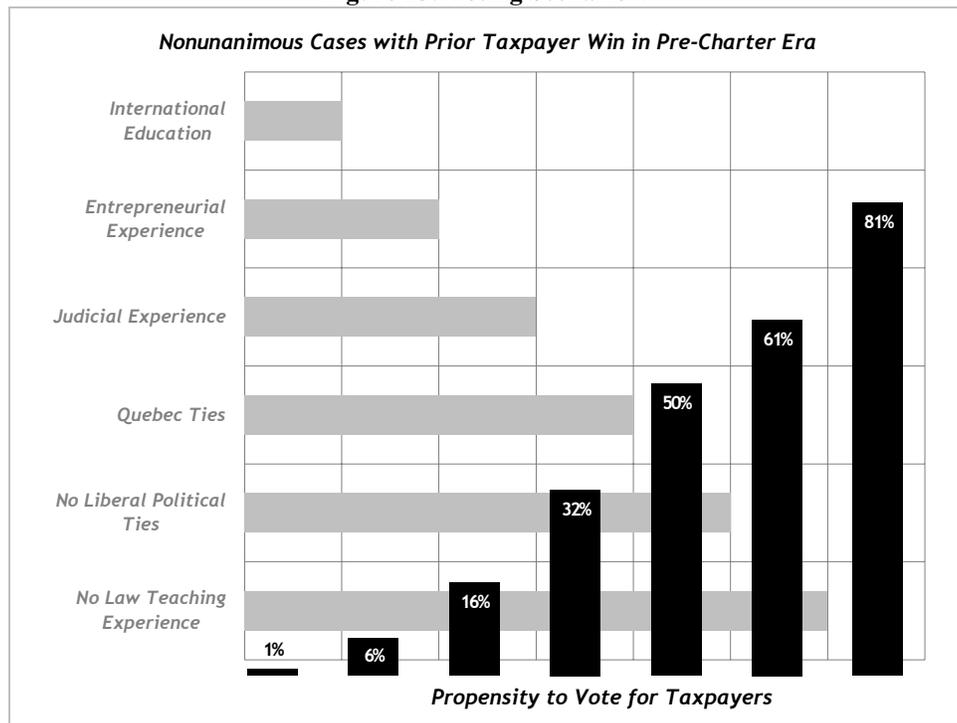
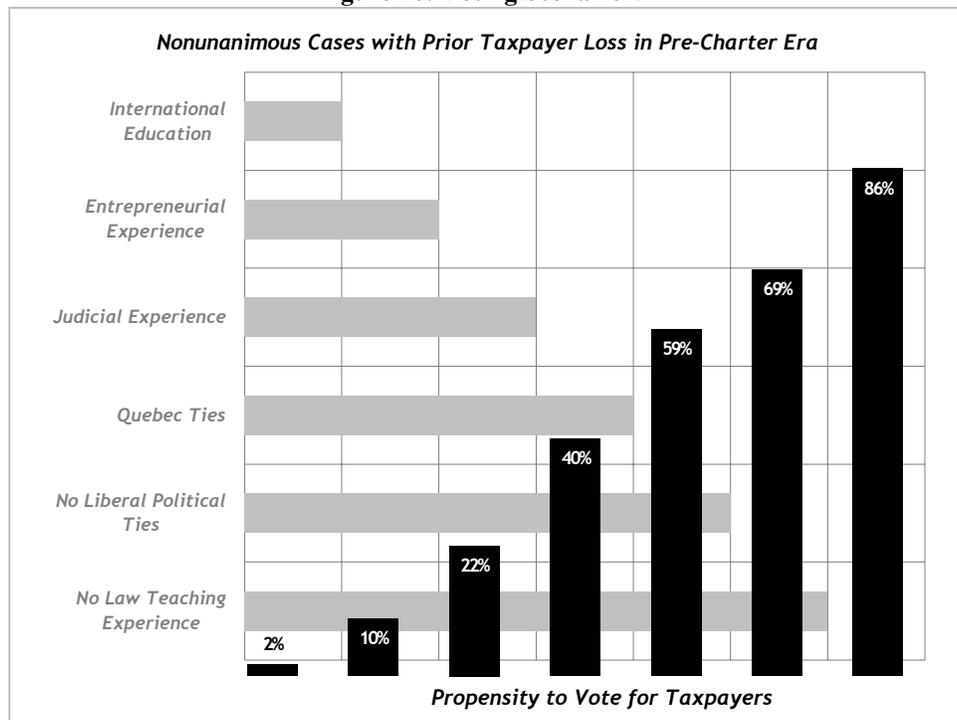


Figure 26: Voting Scenario VI



Comparing Voting Scenario V and Voting Scenario VI, both are about nonunanimous cases in the pre-*Charter* era, shows that composite justices are not much different in their propensity to vote for taxpayers between cases that taxpayers had won in the prior court and cases that taxpayers had lost in the prior court. In nonunanimous cases in the pre-*Charter* era, the highest propensity to vote taxpayers in cases that taxpayers had won in the prior court is 81% for composite justices who went to universities only in Canada, did not found their own law firms, were not judges, built their careers in areas outside Quebec, were appointed by Liberal Party prime ministers and taught law before. The highest propensity to vote taxpayers is 86% for the same composite justices in cases that taxpayers had lost in the prior court. The propensity to vote for taxpayers ranges from 1% to 81% in cases that taxpayers had won in the prior court and 2% to 86% in cases that taxpayers had lost in the prior court.

Comparing the simulated voting scenario in the nonunanimous cases in the pre-*Charter* era with that in unanimous cases in the pre-*Charter* era shows that the rise in the propensity to vote for taxpayers from the most pro-government composite justices to the most pro-taxpayer composites is a lot steeper in the nonunanimous cases. That can be interpreted as illustrating that socio-demographic characteristics of justices may exert more influences on judicial decision making in nonunanimous cases than unanimous cases. As shown in the voting scenarios, the change from not having a certain socio-demographic characteristic to having the characteristic induces a higher increase in propensity to vote for taxpayers in nonunanimous cases than in unanimous cases.

Figure 27: Voting Scenario VII

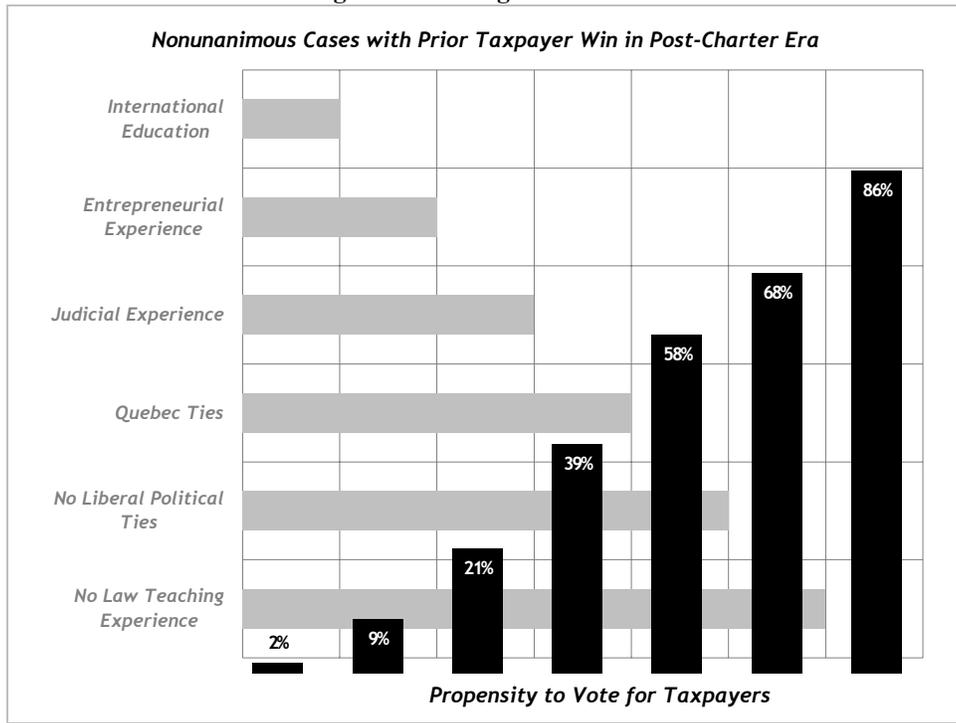
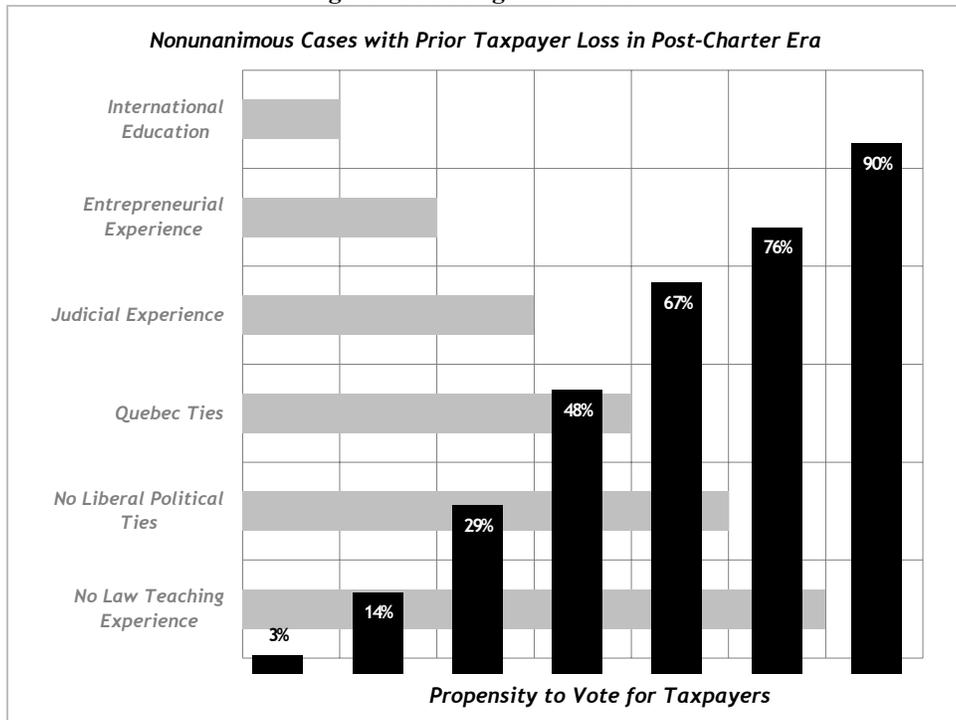


Figure 28: Voting Scenario VIII



Comparing Voting Scenario VII and Voting Scenario VIII, both are about nonunanimous cases in the post-*Charter* era, shows that composite justices are also not much different in their propensity to vote for taxpayers between cases that taxpayers had won in the prior court and cases that taxpayers had lost in the prior court. In nonunanimous cases in the post-*Charter* era, the highest propensity to vote taxpayers in cases that taxpayers had won in the prior court is 86% for composite justices who went to universities only in Canada, did not found their own law firms, were not judges, built their careers in areas outside Quebec, were appointed by Liberal Party prime ministers and taught law before. The highest propensity to vote taxpayers is 90% for the same composite justices in cases that taxpayers had lost in the prior court. The propensity to vote for taxpayers ranges from 2% to 86% in cases that taxpayers had won in the prior court and 3% to 90% in cases that taxpayers had lost in the prior court.

Similar to the pre-*Charter* comparison earlier, comparing the simulated voting scenario in the nonunanimous cases in the post-*Charter* era with that in unanimous cases in the post-*Charter* era shows that the rise in the propensity to vote for taxpayers from the most pro-government composite justices to the most pro-taxpayer composites is a lot steeper in the nonunanimous cases.

In sum, an exploration of the composite judicial profiles illustrates three things in some detail with the Voting Scenarios. First, Supreme Court of Canada justices may be more likely to vote for taxpayers in cases that taxpayers had won in the prior court than in cases that taxpayers had lost in the prior court, but such a tendency is only limited to

cases with less legal ambiguity. Second, Supreme Court of Canada justices may be more likely to vote for taxpayers in the post-*Charter* era than in the pre-*Charter* era, but such a tendency is also only limited to cases with less legal ambiguity. Third, Supreme Court of Canada justices may be more susceptible to the influences of their socio-demographic backgrounds in cases with more legal ambiguity.

3.3.3.2 Voting Scenarios of Current Supreme Court of Canada Justices

The analytical procedure used to generate the composite judicial profiles is used to produce simulated voting scenarios for current Supreme Court of Canada justices. To be clear, the voting patterns are merely possibilities because the probit regression model is only an abstract model of the real world, and it obviously cannot incorporate all the nuances of the real world.¹⁸⁷ Given that the Supreme Court of Canada is in the post-*Charter* era, four different scenarios are generated to illustrate possible judicial behavior when the current justices face cases that taxpayers had won or lost in the prior court with different degrees of ambiguity on the legal issues in the post-*Charter* era. The scenarios are constructed based on the socio-demographic characteristics of the current justices, as shown in Figure 29.

¹⁸⁷ The modelling may appear to be unrealistic as no interactive terms are included. In the beginning of the modelling process, interactive terms were included but no meaningful contribution of them was found so for the purpose of keeping the modelling as parsimonious as possible and limiting the use of degrees of freedom the interactive terms were dropped in later rounds of modelling.

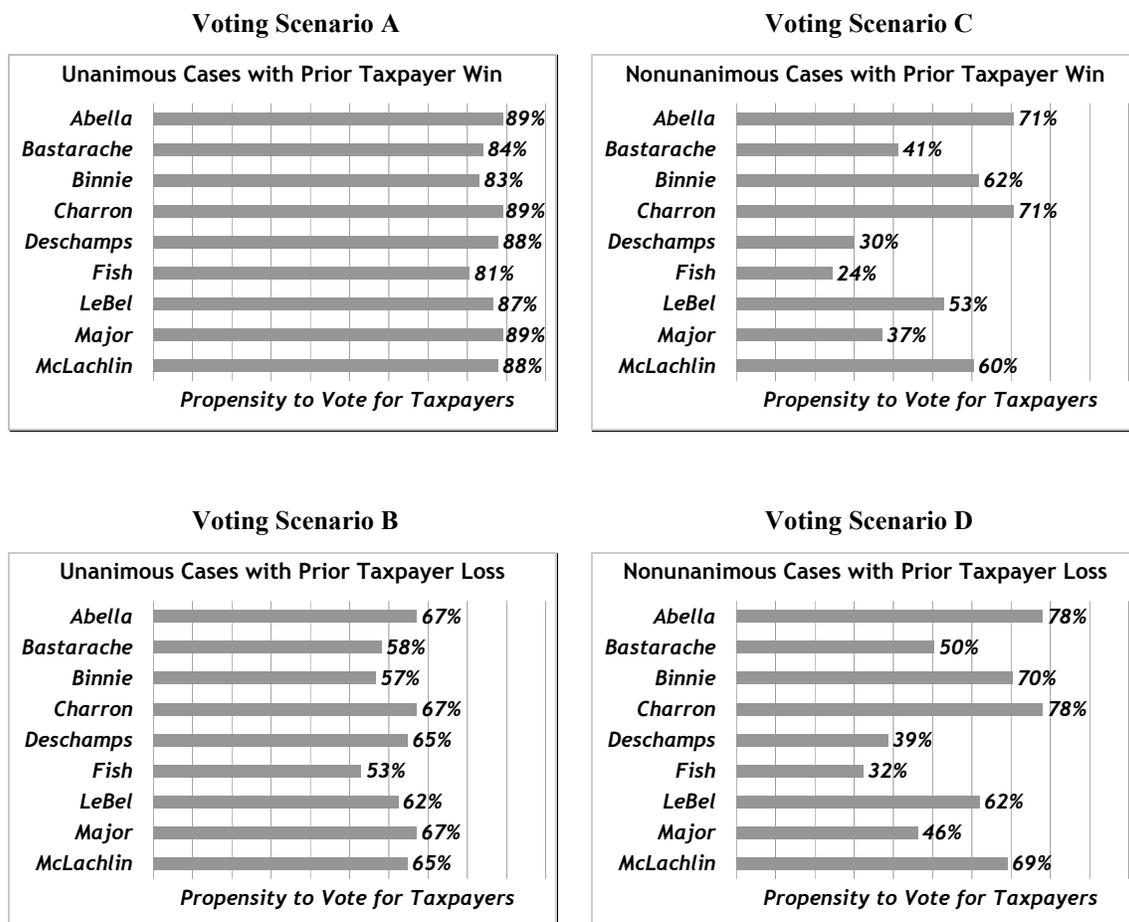
Figure 29: Socio-demographic Characteristics of Supreme Court of Canada Justices as of 2005

	<i>Liberal Political Ties</i>	<i>Quebec Ties</i>	<i>Judicial Experience</i>	<i>Law Teaching Experience</i>	<i>Entrepreneurial Experience</i>	<i>International Education</i>
<i>Abella</i>	■		■	■		
<i>Bastarache</i>	■		■	■		■
<i>Binnie</i>	■			■		■
<i>Charron</i>	■		■	■		
<i>Deschamps</i>	■	■	■			
<i>Fish</i>	■	■	■	■		■
<i>LeBel</i>	■	■	■	■		
<i>Major</i>			■			
<i>McLachlin</i>			■	■		

In Figure 29, the last names of the nine justices as of 2005 are listed as row headings, while the socio-demographic characteristics are listed as column headings. The presence of a characteristic is marked with a black square bullet. For example, Abella was appointed by a Liberal Party prime minister, built her career in areas outside Quebec, was a judge, taught law, did not found her own law firm and went to universities in Canada only.

Voting scenarios are generated based on the socio-demographic profile of the justices, as shown in Figure 30. As an example of interpretation, in Voting Scenario A for unanimous cases with prior taxpayer win, Abella is predicted to have an 89% chance of voting for taxpayers, compared with a 67% of voting for taxpayers in unanimous cases with prior taxpayer loss in Voting Scenario B.

Figure 30: Propensity to Vote for Taxpayers of Supreme Court of Canada Justices as of 2005



In Voting Scenario A for unanimous cases with prior taxpayer win, the propensity to vote for taxpayers is over 80% for all justices. The propensity to vote for taxpayers is the highest among the four scenarios. In Voting Scenario B for unanimous cases with prior taxpayer loss, the propensity to vote for taxpayers hovers in a narrow range from 50% to 70%. The range of the propensity to vote for taxpayers widens to a range from 20% to 80% in Voting Scenario C for nonunanimous cases with prior taxpayer win. In Voting Scenario D for nonunanimous cases with prior taxpayer loss the propensity to

vote for taxpayers ranges from 30% to 80%.

Examining the simulated voting scenarios finds that taxpayers may have the greatest chance to win in cases of less legal ambiguity if they had won in the prior court (as in Voting Scenario A for unanimous cases with prior taxpayer win). Assuming a propensity to vote for taxpayers that is higher than 50% may lead to a pro-taxpayer vote, taxpayers may still win a case with less legal ambiguity even if taxpayers had lost in the prior court (as in Voting Scenario B for unanimous cases with prior taxpayer loss).

For cases with a lot of legal ambiguity, the outcome is only slightly less clear cut. Taxpayers may win or lose such a case with a five-to-four split even if they had won in the prior court (as in Voting Scenario C for nonunanimous cases with prior taxpayer win). The only variable in Voting Scenario C is LeBel, whose propensity to vote for taxpayers is estimated to be only three percentage points over 50%. Interestingly, the chance for taxpayers to win a case with a lot of legal ambiguity is higher when taxpayers had lost in the prior court (as in Voting Scenario D for nonunanimous cases with prior taxpayer loss).

In other words, taxpayers have a very good chance to win in the Supreme Court of Canada in the post-*Charter* era. The only relatively adverse scenario for taxpayers is in cases with more legal ambiguity that they had won in the prior court as represented by Voting Scenario C, in which Fish, Deschamps, Bastarache and Major are estimated to be more likely to vote against taxpayers, and LeBel is estimated to be the swing justice.

Based on the four simulated voting scenarios, Abella and Charron, and McLachlin

to a certain extent, are more likely to vote for taxpayers, while Fish is more likely to vote against taxpayers.

3.3.4 An Interim Report of the Exploratory Data Analysis of Judicial Decision Making in Canadian Income Tax Cases

Different judges performed their judicial duties differently. Biographies of Supreme Court of Canada justices take note of their different judicial decision making approaches. According to the biographers, Justice Bora Laskin followed a sociological and policy-oriented approach in judging,¹⁸⁸ while Justice Brian Dickson preferred to stick to the strict deliberation of legal matters.¹⁸⁹ As the biographers reported, if Justice Emmett Hall considered an injustice had been done he would find a way to correct it,¹⁹⁰ but Justice William McIntyre espoused judicial restraint in the pursuit of a fair result since he “feared that an overzealous bench would, in effect, usurp the government’s legislative role, thereby weakening the institutional credibility of the Supreme Court.”¹⁹¹ The exploratory data analysis conducted in Section 3 aims to add to the understanding of

¹⁸⁸ Robert J. Sharpe and Kent Roach, *Brian Dickson: A Judge's Journey* (Toronto: Published for the Osgoode Society for Canadian Legal History by University of Toronto Press, 2003), 149 [hereinafter Dickson].

¹⁸⁹ *Ibid.* at 150.

¹⁹⁰ Frederick Vaughan, *Aggressive in Pursuit: The Life of Justice Emmett Hall* (Toronto: Published for the Osgoode Society for Canadian Legal History by University of Toronto Press, 2004), 174 [hereinafter Hall].

¹⁹¹ W.H. McConnell, *William R. McIntyre: Paladin of the Common Law* (Montreal: Published for Carleton University by McGill-Queen's University Press, 2000), 93-94 [hereinafter McIntyre].

why different judges act differently under the same legal regime.

In the exploratory data analysis, some socio-demographic variables are examined to see whether their influences on judicial decision making of Supreme Court of Canada justices can be detected. So far the exploratory data analysis has confirmed the existence of the influences of socio-demographic characteristics of Supreme Court of Canada justices on their decision making in income tax cases in 1920-2003. But the findings of the exploratory data analysis need to undergo repeated tests to confirm their usefulness in explaining judicial behavior in the future. The requirement for repeated examinations of findings in empirical inquiries is a given. As often said in statistical analysis, a finding is never proven true; it is only not proven false temporarily. The underlying idea is that all empirical discoveries may sooner or later be proven false when previously hidden information is uncovered.

In Section 4 of the dissertation, the socio-demographic variables that were found to have exerted influences in judicial decision making in the exploratory data analysis of Supreme Court of Canada data are examined using data on judicial decision making in income tax cases decided by the Tax Court of Canada. Again, the results of the following exploratory data analysis are not presented as the discovery of the truth. Rather, they are merely an addition to the body of test results that is required to be examined in the future in order to enhance the understanding of judicial decision making in tax cases.

4 Linking Socio-demographic Characteristics of Tax Court of Canada Judges to their Decisions

In Section 3, the exploratory data analysis has shown that Supreme Court of Canada justices decided cases differently partly because of their different socio-background characteristics. Section 4 is an application of the modeling approach in Section 3 to explore judicial behaviour of Tax Court of Canada judges in income tax cases in 1983-2004.

Unlike the Supreme Court of Canada, Tax Court of Canada mainly hears tax cases, and its role in the justice system in Canada is not as well known as the Supreme Court of Canada. Established in 1983¹⁹² and given exclusive original jurisdiction over income tax appeals filed on or after January 1, 1991,¹⁹³ the Tax Court of Canada has the responsibility to adjudicate a wide range of disputes affecting all Canadians including income tax, G.S.T., Canada Pension Plan, employment insurance, and other matters. Judge David Beaubier of the Court said “if you pay a cheque to the federal government [concerning these matters] ... the Tax Court of Canada has jurisdiction over that matter Therefore, the Tax Court of Canada has jurisdiction over approximately 50% of the Gross

¹⁹² *Tax Court of Canada Act*, R.S.C 1985 c.T-2, as amended.

¹⁹³ For an analysis of the 1991 change, see J.E. Fulcher, "Is the "New" Tax Court of Canada Absolutely Bound by Decisions of the Federal Court – Trial Division?" (1992) 40 *Canadian Tax Journal* 99. In 2003, the court was made a superior court of record, i.e. it was given powers such as witness examination of a superior court. For a history of the Tax Court of Canada provided by the Court, see http://www.tcc-cci.gc.ca/main_e.htm.