

THE TAX COMPLIANCE COSTS OF SMALL AND MEDIUM BUSINESSES, CANADA, 2007*

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INTRODUCTION

THE PURPOSE OF THIS PAPER IS TO ADD TO THE knowledge of the compliance costs of businesses by presenting results for Canada. The first part of this study is an analysis of the tax compliance costs for total taxes and five specific taxes incurred by firms, using both averages and multivariate results. We do this by analyzing survey data provided by the Canadian Federation of Independent Business (CFIB) for 8,271 business owners for the year 2007; they were asked to answer a questionnaire either by mail or by using a password protected web site between December 10, 2007, and February 13, 2008. The second part links the 2007-2008 survey data base to another CFIB survey carried out in 2004 allowing us to examine the consequences of changing tax compliance practices.

The 2007 Compliance Average Costs

We first present the data then the results we draw from it. The CFIB 2007 survey questionnaire has 16 questions.¹ Q13 gathered information on the cost of compliance as follows:

Approximately, how much does your business spend per year for complying with federal, provincial, and municipal tax obligations?'

Outside tax assistance (for example, tax accountant, lawyer) \$ _____ .00

In-house expense (for example, staff salaries, software, overhead, etc.) \$ _____ .00

Compliance costs are defined in this study as the sum of in-house expense and outside costs. Filters were applied by CFIB to remove implausible values reducing the number of usable responses to 6,939 responses.

The second question worth noting was used to allocate total compliance costs between taxes. Q16 reads as follows:

In terms of total amount of time that you spend dealing with taxes, approximately what proportion of time per year do you spend on the following? [Insert a percentage for each of the items below. All percentage values should add to 100%]

*Income Tax (personal and corporate) ___;
GST/HST ___; Provincial Sales Taxes ___;
Payroll Taxes (C/QPP, EI, WCB, etc.) ___;
Property Taxes ___.*

Outliers were again filtered out. In particular, those answers whose percent did not sum to 100 were removed; a total of 6,405 responses remain.

CFIB provided a data file with answers to the 16 questions as well as data drawn from their membership information of each respondent on their size (number of employees), years in activity, legal status, sector of economic activity, and province of activity. Thus, five of the variables used in the tables in this paper to classify respondents use this information as is; in particular, they use size categories for employment. The variable on tax preparer uses information from Q12 which asks:

Who mainly deals with the tax administration and paperwork for your business? (Select one answer only)

Business owner/manager; Employee; Outside professional firm (e.g., accountant); Other (Please specify) _____.

Table 1 shows the mean values for total costs for five taxes and total taxes as well as the ratio

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Table 1
Mean Compliance Costs PIT/ CIT, GST/HST, PST, Payroll, Property Taxes and Total Taxes, Canadian Small/Medium Businesses, 2007

<i>Variables</i>	<i>PIT/CIT</i>	<i>GST/HST</i>	<i>PST</i>	<i>Payroll Taxes</i>	<i>Property Taxes</i>	<i>All Taxes</i>	<i>Ratio Outside/ Inside Costs</i>
<i>Number of Employees</i>							
0-4	2385	2237	1122	2221	576	9713	46.00%
5-19	4278	4185	2348	5404	1201	18959	41.18%
20-49	7393	6975	4024	9649	2041	31732	43.00%
50-99	9366	8452	5394	13682	2652	42781	39.97%
100-499	12664	12095	5439	15697	3477	52476	34.73%
500+	nc	nc	nc	nc	nc	nc	nc
<i>Years in Business</i>							
1	2721	3023	1464	2864	625	14171	36.20%
2-4	3020	3051	1850	3293	664	13775	36.08%
5-10	3266	3404	1718	3950	828	14881	40.96%
11+	4628	4294	2383	5627	1283	19641	42.81%
<i>Form of Business</i>							
Unincorporated	2516	2103	1162	2564	572	10319	38.36%
Incorporated	4612	4447	2447	5670	1271	19956	42.41%
<i>Tax Preparer</i>							
Business Owner/Manager	3073	3048	1674	3871	830	13855	39.30%
Employee	6089	6146	3478	7850	1611	27107	34.32%
Outside Professional Firm	4693	3879	2149	4943	1255	17823	55.86%
Other	4480	6501	2920	6418	1504	26107	24.26%
All Firms	3270	3117	1721	3942	880	15370	41.75%
N	6405	6405	6405	6405	6405	6939	6939

nc = not calculated because there were fewer than 20 respondents.

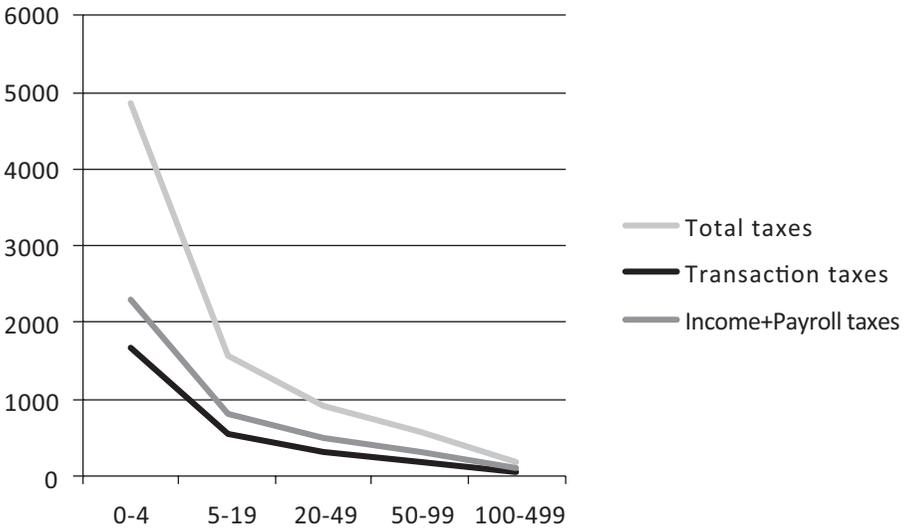
Source: Calculations by the authors using the 2008 CFIB survey. Dollars rounded downwards.

Note PIT: Personal Income Tax; CIT: Corporate Income Tax; GST: Goods and Services Tax; HST: Harmonized Sales Tax; PST: Provincial Sales Taxes (including Quebec Sales tax).

of outside to internal costs for total taxes for four characteristics of the responding firms: size as expressed by the number of employees; years in business; legal form of the business; and tax preparation mode. The amounts for each tax were established by multiplying the compliance costs for total taxes by the proportion of time devoted to each type of tax for each respondent. While it would have been preferable to have information on the share of total costs for each type of tax, this is not available. Since not all respondents provided useful answers to all questions, the usable samples differ for total taxes and specific taxes. Thus the mean costs of specific taxes do not sum to the total taxes mean. We find that:

- In-house costs are higher than outside costs regardless of the characteristic analyzed: outside costs are on average 42 percent of in-house costs;
- Compliance costs increase with the number of employees but decrease when expressed by employee as the number of employees increases for all five taxes as well as for total taxes. This is shown in figure 1 for all taxes, transaction taxes (GST, HST, PST) and income payroll taxes; these monetary amounts are calculated using the median number of employees of the interval as the denominator. For example they decrease by size of firm (employee range) for total taxes as follows:

Figure 1: Per Employee Tax Compliance Costs, \$, Canada, SME, 2007, Total, Transactions, and Income + Payroll Taxes



Source: calculation by the authors using data in table 1

\$4,857 (0-4), \$1,580 (5-19), \$907 (20-49), \$570 (50-99), and \$175 (100-499) firms. For transaction taxes, the cost for the smallest firm is \$1,680 per employee. Given that the threshold for the GST-HST-QST is \$30,000 of taxable sales, it appears that upon crossing the threshold (say by going from one to two employees) that one is faced with a compliance cost similar to taxes remitted in the case of HST (13 percent of \$30,000 being \$3,900);

- Length of activity affects compliance costs meaningfully for businesses operating for more than 10 years with the compliance costs of these firms for total taxes being 30 percent higher than those that have been active 5-10 years. This may well be linked to their size since only 33 percent of firms active more than 10 years have 1-4 employees while for those active one year or less, this is the case for 78 percent of them;
- Firms that are unincorporated incur more or less half the compliance costs than incorporated firms for total taxes and for each tax. This is probably explained by more complex rules and legislation applying to the taxation of incorporated businesses as well as their

size with 66 percent of firms with 1-4 employees and 96 percent of those with 20-49 employees incorporated;

- The type of tax preparer used by firms seems to have an impact on average compliance costs: Firms where the tax preparation is done by employees have higher compliance costs regardless of the kind of tax, while the firms where tax preparation is done by the business owner or manager have the lowest tax compliance costs.

Multivariate Analysis

Table 2 presents the results of a multivariate analysis of the costs of tax compliance by tax and for total taxes. This allows us to isolate the impact of each of the characteristics on these costs. The estimations were carried out using the logarithm of compliance costs as the dependent variable since preliminary work showed a better fit for this variable than for the linear one in \$. We find that:

- As the number of employees increases, so does the average cost of tax compliance in all estimations. We note that these increases are more important in value for taxes whose

Table 2
Multivariate Analysis PIT/CIT, GST/HST, PST, Payroll, Property Taxes and Total Taxes.
(log-log form)
Canadian Small/Medium Businesses, 2007

<i>Variables</i>	<i>lnPIT/CIT</i>	<i>lnGST/HST</i>	<i>lnPST</i>	<i>lnPayroll</i>	<i>lnProperty</i>	<i>Ln all</i>
Constant	7.10 *** (80.33)	7.06 *** (82.99)	6.68 *** (63.83)	7.18 *** (77.53)	5.96 *** (56.62)	8.49 *** (123.45)
<i>Number of Employees (0-4 as reference)</i>						
5-19	0.46 *** (11.19)	0.49 *** (12.64)	0.54 *** (11.16)	0.73 *** (17.82)	0.51 *** (10.38)	0.62 *** (19.94)
20-49	1.02 *** (16.41)	1.00 *** (18.28)	1.04 *** (15.48)	1.29 *** (21.77)	1.07 *** (16.08)	1.17 *** (25.69)
50-99	1.29 *** (12.89)	1.27 *** (15.07)	1.27 *** (12.52)	1.58 *** (16.98)	1.29 *** (12.73)	1.47 *** (21.12)
100-499	1.53 *** (12.17)	1.52 *** (13.40)	1.65 *** (12.60)	1.81 *** (14.77)	1.42 *** (9.43)	1.65 *** (17.29)
500+	2.42 *** (4.06)	1.40 *** (3.80)	0.33 *** (2.33)	1.93 *** (4.42)	1.82 (1.55)	1.96 *** (5.19)
<i>Years in Business (5-10 as reference)</i>						
1	0.12 (0.94)	0.10 (0.74)	0.22 (1.58)	0.13 (0.88)	0.05 (0.37)	0.02 (0.22)
2-4	-0.04 (-0.48)	-0.04 (-0.50)	0.08 (0.85)	-0.01 (-0.16)	-0.04 (-0.42)	0.02 (0.29)
11+	0.08 (1.57)	0.04 (0.91)	0.06 (1.00)	0.06 (1.18)	0.10 (1.61)	0.07 ** (1.85)
<i>Form of Business (Unincorporated as reference)</i>						
Incorporated	0.28 *** (5.57)	0.42 *** (8.35)	0.40 *** (6.38)	0.39 *** (7.11)	-0.40 *** (6.23)	.45 *** (10.96)
<i>Tax Preparer (Employee as reference)</i>						
Business Owner/Manager	-0.38 *** (-8.21)	-0.40 *** (-9.05)	-0.40 *** (-7.66)	-0.35 *** (-7.86)	-0.31 *** (-5.90)	-0.41 *** (-11.75)
Outside Professional Firm	-0.14 *** (-2.77)	-0.21 *** (-4.70)	-0.21 *** (-3.95)	-0.25 *** (-5.39)	-0.02 (-0.29)	-0.24 *** (-6.72)
Other	-0.041 (-0.27)	0.02 (0.13)	-0.10 (-0.58)	-0.11 (-0.74)	0.00 (0.01)	-0.05 (-0.40)
R ²	0.1832	0.2042	0.1993	0.2421	0.1912	0.27
N	5567	5464	4068	5316	4289	6773

Note: *, **, *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels respectively with t-statistics in brackets. Zero values are excluded as the natural logarithm of costs is used as the dependent variable.

PIT: Personal Income Tax; CIT: Corporate Income Tax; GST: Goods and Services Tax; HST: Harmonized Sales Tax; PST: Provincial Sales Taxes (including Quebec Sales tax).

Source: Calculations by the authors using the 2008 CFIB survey. Regional and sectoral dummies were included but are not reported here. See Vaillancourt (2012) for these results.

compliance costs are more likely to be influenced by the number of employees that is income (presumably the personal part) and payroll taxes. However, one can infer from the results that the increase per employee decreases with size;

- The numbers of years in business has no significant impact on compliance costs in all six estimations, supporting the hypothesized relationship between size and survival in business;
- Incorporated status has a positive, significant impact on compliance costs for total taxes and for specific taxes except the property tax for which it has a negative effect. Incorporation requires attention to the interaction between various features of the personal and corporate income taxes such as ensuring a proper balance between retained earnings and labor income that allows contributions to Registered Retirement Savings Plans (RRSP, akin to IRA and 401k plans). It also offer more opportunities for tax planning;

- The type of tax preparer used has an impact on tax compliance costs. Tax compliance costs are lowest in all cases when the business owner/manager does the compliance work and is lower when it is done by outside professional than when employees do it. Either owners are more efficient than employees, perhaps because of experience or perhaps they underestimate their costs. Firms that hire outside firms specialized in tax preparation have presumably made the calculation that it is less expensive than other types of tax preparation arrangements.

CHANGES IN COSTS OF COMPLIANCE BETWEEN THE 2004 AND THE 2007 SURVEY

In this section, we present the change in the mean values of tax compliance costs between the 2004 and 2007 for a subsample of 433 firms that answered both the 2007-2008 CFIB survey and a previous one carried out in 2004. We then examine how a change

Table 3
Changes in Mean Values of Compliance Costs, All Taxes, Canadian Small/Medium Businesses (2004-2007)

<i>Variables 2007 Values</i>	<i>Change in Total Costs (%)</i>	<i>Change in In House Costs (%)</i>	<i>Change in Outside Costs (%)</i>
<i>Number of Employees</i>			
0-4	-3.4	-13.8	20.7
5-19	5.3	-0.6	20.5
20-49	26.4	27.3	24.3
50-99	-19.1	-34.1	36.6
100-499	nc	nc	nc
500+	nc	nc	nc
<i>Form of Business</i>			
Unincorporated	34.7	36.1	32.2
Incorporated	4.1	-5.2	30.2
<i>Tax Preparer</i>			
Business Owner/Manager	13.5	18.1	4.8
Employee	-10.1	-24.3	53.1
Outside Professional Firm	16.9	4.4	47.6
Other	17.5	24.2	nc
All Taxpayers	5.5	-3.4	30.2

nc = not calculated because there were fewer than 20 respondents.

Source: calculations by the authors using the 2008 and 2004 CFIB survey data.

Table 6
Multivariate Analysis – Changes in Tax Compliance Costs, all Taxes, Canadian Small/Medium Businesses (2004-2007)

<i>Variables (2007 values)</i>	<i>Change in Total Costs</i>	<i>Change in Inhouse Costs</i>	<i>Change in Outside Costs</i>
Constant	16665.53*** (4.29)	10441.89*** (3.10)	6223.64*** (4.20)
<i>Number of Employees (0-4 as reference)</i>			
5-19	8706.013*** (3.84)	5790.09*** (3.16)	2915.93*** (3.38)
20-49	19987.62*** (4.91)	14344.27*** (3.97)	5643.35*** (4.82)
50-99	15159.63*** (2.77)	8727* (1.86)	6432.63*** (3.25)
100-499	35322.14*** (2.73)	19584.05** (2.06)	15738.09*** (3.57)
Increase Number Employees	10376.21 (1.60)	9137.36 (1.54)	1238.85 (1.20)
Decrease Number Employees	-478.66 (-0.10)	1335.75 (0.31)	-1814.40* (-1.87)
<i>Form of Business (Unincorporated as reference)</i>			
Incorporated	1717.63 (0.48)	962.99 (0.32)	754.65 (0.86)
<i>Tax Preparer (Employee as reference)</i>			
Business Owner/Manager	-8021.72** (-2.25)	-6250.28** (-2.13)	-1771.45 (-1.52)
Outside Professional Firm	3850.79 (0.78)	1210.26 (0.28)	2640.53* (1.78)
Other	-13652.89** (-2.53)	-9162.41** (-2.03)	-4490.48*** (-3.24)
Change Business Owner/Manager to Employee	-4579.12 (-0.74)	-2897.60 (-0.58)	-1681.52 (-1.05)
Change Business Owner/Manager to Outside Professional Firm	-18065.64 (-4.20)	-12968.18*** (-3.57)	-5097.46*** (-3.81)
Change Employee to Business Owner/Manager	10977.01 (1.11)	13017.86 (1.31)	-2040.85 (-1.49)
Change Employee to Outside Professional Firm	-16089.24*** (-2.91)	-10950.42** (-2.24)	-5138.823*** (-3.10)
Change Outside Professional Firm to Business Owner/Manager	-2102.72 (-1.08)	-1960.95 (-1.10)	-141.77 (-0.22)
Change Outside Professional Firm to Employee	-3128.30 (-0.61)	-2918.29 (-0.67)	-210.02 (-0.11)
R ²	0.2535	0.1920	0.2764
N	433	433	433

Note: *, **, *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels respectively. Regional and sectoral dummies were included but are not reported here.

Source: Calculations by the authors using the 2008 and 2004 CFIB surveys.

in tax compliance mode affected these costs using a multivariate analysis. Table 3 shows that:

- The changes in in-house costs vary with the firms' size. Firms with 20-49 employees had on average an increase in in-house costs, while the 50-99 employee firms had on average a decrease in in-house costs, perhaps because they adopted IT solutions;
- Unincorporated businesses have higher changes in tax compliance costs than incorporated business;
- Changes in outside costs are higher for businesses using employees as tax preparer (53.1 percent) than for the firms that use outside professional firms as tax preparer (47.6 percent).
- Considering all taxpayers, we notice that the average outside costs increased by 30.2 percent while the average in-house costs decreased by 3.4 percent and the average total costs increased in 5.5 percent. This change in outside costs may be due to businesses using more external tax assistance services.

Table 4 reports the results of a multivariate analysis in order to establish the impact of some businesses' characteristics may have on the changes on in-house, outside, and total costs. A preliminary look at the data was sufficient to conclude that some characteristics barely change through the years: region (one change), form of business (six changes), and the sector of activity (one change). For the two variables that presented more than 10 cases of change, the number of employees and type of tax preparer, we created variables in order to capture the impact if any of these changes. Results from this estimation, with our dependent variable being the dollar value (negative or positive) of changes in costs, are as follows:

- Changes in the number of employees are rarely significant. The impact of a decrease

in the number of employees is to reduce costs significantly for outside costs. This may reflect less costs associated with payroll taxes.

- We find a significant reduction in terms of compliance costs of switching tax preparation to an outside professional.

CONCLUSION

In this study we analyzed data from the 2008 CFIB survey on tax compliance costs as well as changes in the costs of compliance between 2004 and 2007. The multivariate analysis shows that:

- the number of employees has a positive but decreasing marginal impact on compliance costs;
- incorporated SMEs incur higher compliance costs than non-incorporated SMEs;
- SMEs using their employees to comply with taxes have the highest costs while those using owners have the lowest compliance costs.

We also found that changes in tax compliance costs between 2004 and 2007 were related mainly to changes in the type of tax preparation. Moving to an outside provider reduced costs for this small sample of SMEs.

Note

- ¹ See CFIB (2008)

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