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The Distributional Impact of the Federal Tax and Transfer Changes Introduced Since 1984

Patrick Grady*

PRÉCIS

Cet article décrit les divers changements dans l'impôt fédéral et dans les transferts introduits par le gouvernement fédéral actuel depuis son élection en 1984 jusqu'à la présentation de son budget en avril 1989, et analyse leurs repercussions sur la répartition du revenu en 1990.

Cette analyse a recours à la Base de données et au modèle de simulation en politique sociale (BD/M5PS) de Statistique Canada.

L'analyse évalue l'effet sur la répartition du revenu exercé par les changements dans l'impôt fédéral et dans les transferts depuis 1984 en comparant d'une part le régime d'impôt et de transferts du gouvernement fédéral qui sera en vigueur en 1990 (à condition qu'il n'y ait aucune autre modification du régime d'impôt à la suite des changements introduits dans le budget d'avril 1989), et d'autre part le régime qui aurait été en vigueur si la législation de 1984 sur les impôts et sur les transferts avait été maintenue jusqu'en 1990 avec indexation intégrale des exemptions, des déductions et des paliers d'imposition. L'analyse examine en détail toutes les mesures introduites par le gouvernement fédéral dans les budgets de 1985, 1986, 1987, 1988 et 1989, ainsi que dans la réforme fiscale de 1988.

Les résultats de cette analyse démontrent qu'en 1990 les familles canadiennes paieront au total 11,1 milliards \$ de plus en impôts fédéraux après transferts que le montant qu'elles auraient payé si le système fiscal de 1984 était toujours en vigueur. Dans ce total, les impôts fédéraux sur le revenu représentent moins de 900 millions \$, les surtaxes fédérales 3,2 milliards \$ et les taxes de vente fédérales 6,1 milliards \$.

En 1990 une famille canadienne moyenne paiera environ 1 000 \$ de plus en impôts que le montant qu'elle aurait dû payer en l'absence

* Of Global Economics Ltd., Ottawa. I would like to thank Mike Wolfson and Brian Murphy of Statistics Canada and the editorial committee for their helpful comments and suggestions. Although the analysis in this article is based on Statistics Canada's Social Policy Simulation Database and Model, the author alone is responsible for the interpretations of the data that appear in this article.

des changements introduits depuis 1984. Sur le total de 11,1 millions de familles recensées au Canada, 9,5 millions (85 pour cent) devront payer des impôts fédéraux plus élevés nets de transferts que ceux qu'elles auraient payés si le régime fiscal de 1984 avait été prorogé. Seul 1,5 million (13 pour cent) devront payer moins d'impôts fédéraux nets transferts.

Les changements fiscaux introduits par le gouvernement actuel sont très progressifs dans leur ensemble pour les familles ayant un revenu annuel inférieur à 35 000 \$, et relativement proportionnels pour celles dont les revenus se situent entre 35 000 \$ et 75 000 \$. Les changements fiscaux sont modérément régressifs pour celles aux revenus entre 75 000 et 150 000 \$, et extrêmement régressifs pour celles qui dépassent 150 000 \$.

L'analyse indique clairement que les familles à revenus moyens, particulièrement celles avec des enfants, ont supporté en grande partie le fardeau des augmentations récentes des impôts. Les familles dans les catégories d'impôt les plus élevées ont reçu une part moins que proportionnelle du fardeau additionnel des impôts alors que celles des catégories aux revenus les plus faibles et ayant des enfants ont bénéficié effectivement de réductions d'impôt grâce aux changements introduits depuis 1984.

Il est évident que l'importance du déficit fédéral, de nouvelles augmentations d'impôt sont inévitables. La répartition du fardeau fiscal de plus en plus lourd doit être équitable. L'analyse de la répartition du revenu qui a été effectuée à l'aide du BD/MSPS et qui est présentée dans cet article peut contribuer à rendre le public conscient de l'effet des changements proposés pour le régime d'impôt sur la répartition du revenu.

ABSTRACT

This article reports on the results of an analysis of the distributional impact in 1990 of the federal tax and transfer changes introduced by the present government from the time of its election in 1984 through the announcement of its February 1990 budget. The analysis uses Statistics Canada's Social Policy Simulation Database and Model (SPSD/M).

The analysis measures the distributional impact of the federal tax and transfer changes since 1984 by comparing the federal tax and transfer system that will actually be in place in 1990 with the system that would be in place if the 1984 tax and transfer legislation were still in effect, with full indexation through 1990 of exemptions, deductions, and rate brackets. The analysis fully reflects all of the federal tax and transfer changes introduced in the 1985, 1986, 1987, 1988, and 1989 budgets and in the 1988 tax reform. There were no significant tax or transfer changes in the February 1990 budget.

The analysis indicates that in 1990 Canadian households will pay a total of about \$11.1 billion more in federal taxes net of transfers than they would pay if the 1984 tax system were still in effect. Increases in net federal income tax account for only \$0.9 billion of this total. Federal surtaxes, which account for \$3.2 billion, and increases in federal commodity taxes, which account for \$6.1 billion, are by far the most important contributors to the increasing net tax burden of the personal sector.

The additional net tax burden borne by an average Canadian family in 1990 will be about \$1,000. Of the 11.1 million census families in Canada, 9.5 million (85 percent) will face higher federal taxes net of transfer than they would face under an extension of the 1984 tax system. Only 1.5 million (13 percent) will face lower federal taxes net of transfers.

The tax and transfer changes introduced under the present government are very progressive in the aggregate for families that earn less than \$35,000 per year and roughly proportional for families that earn between \$35,000 and \$75,000. The tax changes become moderately regressive in the \$75,000 to \$150,000 range and severely regressive over \$150,000.

It is clear that middle-income families, particularly those with children, have borne the brunt of the recent tax increases. Families in the highest income categories have received a less than proportionate share of the increased tax burden, and families with children in the lowest income categories have actually enjoyed tax cuts as a result of the tax and transfer changes introduced since 1984.

Given the size of the federal deficit, further tax increases are inevitable, and the distribution of the growing tax burden must be equitable. Distributional analysis performed with the SPSP/M, of the kind presented in this article, can help to ensure that the public is aware of the distributional impact of proposed tax changes.

INTRODUCTION

Tax changes are introduced every year, and over time they result in significant changes in the distribution of the tax burden. It is useful to look back from time to time to see if any trends or patterns in the distribution of taxes are emerging. The period since the installation of the present Progressive Conservative (PC) government in 1984 is a particularly interesting one to consider because of what it shows about the tax policy objectives of the party in power.

This article presents an analysis of the distributional impact in 1990 of the tax and transfer changes introduced by the present government from the time of its election in 1984 through the announcement of the February 1990 federal budget. The analysis uses Statistics Canada's Social Policy Simulation Database and Model (SPSP/M), which was described in an article in the

The present paper is an example of the kind of analysis that can be carried out with the SPSD/M.²

Analysis of the distributional impact of tax changes is essential if the public is to have the information it needs to determine that increases in the tax burden are being shared fairly. In the past, the Department of Finance was the only agency in Canada that had access to a tax and transfer model capable of performing distributional analysis of this kind, and it did not use it to provide the public with information on changes in the distribution of the tax burden on a regular basis. Now, thanks to the SPSD/M, which Statistics Canada has made available to the public for a moderate licence fee, groups outside government can perform, on their own microcomputers, distributional analysis of the type that previously only the Department of Finance could perform. The SPSD/M greatly increases the capacity of analysts outside government to participate knowledgeably in the ongoing debate on tax policy issues.

THE ANALYSIS

The analysis measures the distributional impact of the federal tax and transfer changes since 1984 by comparing two alternative tax and transfer systems for 1990. In the base case, the system is an extrapolation of the system that was in place in 1984, with full indexation through 1990 of most exemptions and deductions and all rate brackets. In the variant case, the tax and transfer parameters are estimates of those that will actually be in effect in 1990, provided there are no tax changes subsequent to those introduced in the February 1990 budget.

The variant case incorporates all of the federal tax and transfer changes introduced in the 1985, 1986, 1987, 1988, and 1989 budgets and the 1988 tax reform. In the case of the personal income tax, the most important changes incorporated in the analysis are as follows:

- The partial deindexation of exemptions and brackets (that is, the limiting of indexation to the increase in the consumer price index [CPI] minus 3 percentage points).

¹ See Michael J. Bordt, Grant J. Cameron, Stephen F. Gribble, Brian B. Murphy, Geoff T. Rowe, and Michael C. Wolfson, "The Social Policy Simulation Database and Model: An Integrated Tool for Tax/Transfer Policy Analysis" (January-February 1990), 38 *Canadian Tax Journal* 48-65.

² This analysis differs in several respects from a similar analysis performed with the aid of the SPSD/M by Allan Maslove: (1) it takes into account all tax changes through those introduced in the February 1990 budget, whereas the Maslove study stops with tax reform; (2) it incorporates federal commodity tax changes, whereas the Maslove study deals only with income tax and transfer changes; (3) it focuses on federal income tax changes, whereas the Maslove study also examines the implications of federal income tax changes for provincial and total income tax; (4) it uses the latest version of the SPSD/M, which has a 1986 database, whereas the Maslove study used the previous version, which had a 1984 database. See Allan M. Maslove, *Tax Reform in Canada: The Process and Impact* (Halifax: Institute for Research on Public Policy, 1989).

- The reduction in the number of tax brackets from 10 to 3 (at rates of 17, 26, and 29 percent).
- The substitution of credits for exemptions.
- The new treatment of capital gains and dividends.
- The introduction of the income tax surtaxes.
- The introduction of the sales tax credit.
- The limitation of the indexation of family allowances to the percentage increase in the CPI less 3 percentage points.
 - The recapture of family allowances and old age security (OAS) benefits for those with incomes of more than \$50,000.
 - The enrichment of the child tax credit.
- The increase in the unemployment insurance (UI) contribution rate from 1.95 to 2.25 percent in order to finance extended benefits in certain regions.
- The increase in Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) contributions.

The analysis takes the limitation on the indexation of family allowances into account because it can be viewed as part of the tax and transfer system with respect to child benefits. The analysis incorporates the increase in the UI contribution rate because it affects all employees. The analysis does not incorporate the proposed reductions in UI benefits in Bill C-21,³ since they will affect only a small proportion of the population.

The analysis also incorporates the changes since 1984 in commodity taxes such as the manufacturers' sales tax (MST), excise taxes, and customs duties. In the case of the MST, the most important changes incorporated in the analysis are as follows:

- The increase in the general MST rate from 10 to 13.5 percent.
- The introduction of the 11 percent tax on telecommunication services.
- The extension of the MST to several additional goods, including candy, soft drinks, and snack foods.
- The increase in the tax rate on alcoholic beverages and tobacco from 12 to 19 percent.

In the case of excise taxes, the most important changes since 1984 have been an increase of 6 cents per litre in the tax on gasoline and aviation fuel, increases in the tax on leaded gasoline, and increases in the taxes on alcohol and tobacco. The analysis also takes into account the elimination of the remaining energy taxes associated with the National Energy Program and the reduction in customs duties under the terms of the Canada-United States free trade agreement.

³ Bill C-21, An Act To Amend the Unemployment Insurance Act and the Employment and Immigration Department and Commission Act, first reading June 1, 1989.

The analysis does not consider any changes in provincial tax revenues that may result, from the federal tax and transfer changes introduced by the current PC government; the purpose of the exercise is to quantify the direct distributional impact of the federal changes alone. The analysis accomplishes this purpose, in the SPSD/M, by using federal taxes less transfers as the key analysis variable.

The analysis uses the SPSD/M's 1986 database of individuals, families, income, spending patterns, and taxes. It scales up all nominal values in the database to reflect their estimated growth between 1986 and the 1990 reference year. In both the base case and the variant case, the analysis uses the actual increase in the CPI of 4.8 percent over the 12 months ending in September 1989 in calculating the levels of brackets and credits in 1990. The base case simulation uses an indexation factor for the entire 1984-1990 period of 28.7 percent; this factor reflects the percentage increase in the CPI since the 1982-83 base period. In the variant case, the analysis uses an indexation factor of 1.7 percent for the 1990 taxation year—that is, the percentage increase in the CPI minus 3 percentage points.

THE RESULTS

Tables 1 through 6 show the effects of the changes in federal taxes and transfers introduced since 1984. Most of the tables provide results for census families. A census family is defined by Statistics Canada as "a head, spouse if present, and never-married children of any age sharing a dwelling." Adults are persons aged 18 or more, including the elderly, and the elderly are persons aged 65 or more. Children are persons aged less than 18. A census family can be made up of one or more taxpayers.

The Total Cost of the Federal Tax and Transfer Changes

As table 1 shows, the analysis indicates that in 1990 Canadian households will pay a total of about \$11.1 billion more in federal taxes net of transfers than they would pay if the 1984 tax system were still in effect. Increases in net federal income tax account for less than \$0.9 billion of this total, whereas surtaxes account for \$3.2 billion and increases in commodity taxes for \$6.1 billion. The federal sales tax credit will reduce taxes by almost \$1 billion in 1990, and the enrichment of the child tax credit will reduce them by about \$570 million.

The Impact of the Changes on Average Taxpayers

The average Canadian census family has 2.3 members and is projected to have a total income in 1990 of \$44,090. Table 2 shows that in 1990 the average family will pay about \$1,000 more in federal taxes net of transfers than it would pay in the absence of the tax changes introduced since 1984. It will pay \$79 more in net income taxes, \$69 more in UI contributions, \$86 more in CPP/QPP contributions, and \$553 more in commodity taxes, and it will receive \$23 less in family allowances. To these amounts one must add a

Table 1 The Net Impact on Total Personal Taxes in 1990 of Federal Tax and Transfer Changes Since 1984

Type of change	Total value of change, ^a \$ million
Increase in net federal income tax	879
Federal surtaxes	3,167
Federal sales tax credit	—980
Decrease in family allowances	259
Recapture of family allowances and OAS	491
Increase in child tax credit	—573
Increase in UI contributions	770
Increase in CPP/QPP contributions	957
Increase in federal commodity taxes	6,138
Increase in federal taxes less transfers	11,090

^aA positive amount indicates that families pay more money to the federal government as a result of the tax changes, a negative amount that they either receive money or pay less. The items shown do not constitute an exhaustive list of the tax and transfer changes since 1984, and so the individual amounts do not add up exactly to the total.

\$44 recapture of family allowances and OAS payments and \$285 in federal surtaxes. The sum of these additional taxes and reductions will be offset by \$88 in federal sales tax credits, which were not available under the pre-1984 system, and a \$52 increase in child tax credits.

The Impact of the Changes on Low-Income Families

Table 3 shows how the effects of the tax changes vary by income group. Of the 11.1 million census families in Canada, 9.5 million (85 percent) will face higher federal taxes net of transfers in 1990 than they would face under an extension of the 1984 tax system. Only 1.5 million families (13 percent) will face lower federal taxes net of transfers, and of this number 1.3 million (85 percent) will have incomes of less than \$25,000. The net benefits for low-income families arise from the income tax changes introduced as part of tax reform, the introduction of the sales tax credit, and the enrichment of the refundable child tax credit.

Some 2.6 million census families that earn less than \$25,000 and 1.1 million that earn less than \$15,000 will pay more in federal taxes net of transfers in 1990 than they would pay if the pre-1984 system were still in effect. The average additional amount of federal taxes net of transfers will be \$88 for families that earn between \$10,000 and \$15,000, \$230 for families that earn between \$15,000 and \$20,000, and \$458 for families that earn between \$20,000 and \$25,000. Only families that earn less than \$10,000 will on average pay slightly less in federal taxes net of transfers than they would pay in the absence of the tax changes introduced by the present government.

The Impact of the Changes on Upper-Income Families

Table 3 shows that 546,000 (87 percent) of census families with incomes of more than \$100,000 will pay more in federal taxes net of transfers in 1990 as a result of the tax changes and 85,000 (13 percent) will pay less. Families

Table 2 The Impact by Total Income Group in 1990 of Individual Federal Tax and Transfer Changes Since 1984

Total income group, dollars	Increase in net federal income tax	Federal surtaxes	Federal sales tax credit	Decrease in family allowances	Recapture of family allowances and OAS payments	Increase in child tax credit	Increase in UI contributions	Increase in CPP/QPP contributions	Increase in federal commodity taxes	Increase in federal taxes less transfers
0-10,000	14	2	-163	6	0	-29	4	4	155	-8
10,001-15,000	49	11	-172	7	0	-39	7	8	217	88
15,001-20,000	83	37	-216	12	0	-62	17	22	335	230
20,001-25,000	102	67	-121	14	0	-79	29	40	403	458
25,001-30,000	77	106	-61	19	0	-94	48	64	462	621
30,001-35,000	102	144	-44	24	0	-82	60	78	503	784
35,001-40,000	196	194	-33	25	0	-68	74	92	536	1,015
40,001-45,000	261	238	-30	30	0	-76	84	103	602	1,210
45,001-50,000	262	284	-29	34	0	-76	93	113	626	1,303
50,001-60,000	323	352	-32	38	24	-58	105	129	680	1,558
60,001-75,000	293	453	-38	38	101	-25	126	148	757	1,848
75,001-100,000	227	628	-51	35	165	-11	148	180	861	2,177
100,001-150,000	-249	951	-56	30	270	-6	162	202	1,177	2,475
150,000+	-3,717	2,982	-66	28	458	-3	130	203	1,999	2,009
All groups	79	285	-88	23	44	-52	69	86	553	999

Note: A positive amount indicates that families pay more money to the federal government as a result of the tax changes, a negative amount that they either receive money or pay less.

Table 3 The Net Impact by Total Income Group in 1990 of Federal Tax and Transfer Changes Since 1984

Total income group, dollars	Change in federal taxes less transfers, dollars ^a	Change as a percentage of consumable income ^b	Families, thousands	Average family size	Losers, ^c thousands	Gainers, ^c thousands
0-10,000	- 8	- 1.4	923	1.2	338	533
10,001-15,000	88	0.9	1,349	1.3	796	474
15,001-20,000	230	1.9	948	1.8	742	185
20,001-25,000	458	2.7	810	1.9	738	63
25,001-30,000	621	3.0	735	2.1	699	34
30,001-35,000	784	3.3	727	2.3	710	16
35,001-40,000	1,015	3.8	666	2.4	656	10
40,001-45,000	1,210	4.0	655	2.6	647	8
45,001-50,000	1,303	3.9	627	2.8	616	11
50,001-60,000	1,558	4.1	1,015	2.9	1,006	9
60,001-75,000	1,848	4.0	1,113	3.1	1,094	19
75,001-100,000	2,177	3.8	904	3.3	879	25
100,001-150,000	2,475	3.2	441	3.3	401	40
150,000+	2,009	1.4	190	3.3	145	45
All income groups	999	2.7	11,102	2.3	9,466	1,473

a A positive amount indicates that families pay more money to the federal government as a result of the tax changes, a negative amount that they either receive money or pay less. b Consumable income is all income, including transfer payments, less all direct and indirect taxes. CA loser is anyone who experiences an increase in federal taxes, net of transfers, of more than \$10; a gainer experiences a reduction of more than \$10.

Table 4 The Net Impact by Family Type in 1990 of Federal Tax and Transfer Changes Since 1984

Census family type	Increase in federal taxes less transfers, dollars	Increase as a percentage of consumable incomes	Families, thousands	Average family size	Losers, ^b thousands	Gainers, ^b thousands
With children, 1 adult	310	0.0	461	2.5	256	201
With children, 2 or more adults	1,530	3.5	3,077	4.0	2,834	235
With elderly, 1 adult	244	0.8	1,277	1.0	783	412
With elderly, 2 or more adults	854	2.5	1,073	2.2	913	142
Other, 1 adult	545	2.5	2,759	1.0	2,354	360
Other, 2 or more adults	1,430	3.5	2,455	2.4	2,325	123
All households	999	2.7	11,102	2.3	9,466	1,473

a Consumable income is all income, including transfer payments, less all direct and indirect taxes. bA loser is anyone who experiences an increase in federal taxes, net of transfers, of more than \$10; a gainer experiences a reduction of more than \$10.

with incomes of between \$100,000 and \$150,000 will on average pay \$2,475 more than they would pay in the absence of the changes, but families with incomes of more than \$150,000 will on average pay only \$2,009 more.

The Progressivity of the Changes

Table 3 also expresses the net impact of the tax and transfer changes for each total income group as a percentage of consumable income (income including transfers less direct taxes and commodity taxes). By this reckoning, the tax changes are very progressive in the aggregate if family income is less than \$35,000 per year, roughly proportional if it is between \$35,000 and \$75,000, and increasingly regressive at higher income levels. The severe regressivity at the highest income levels is a result of the reduction in top marginal income tax rates. Were it not for the increases in the surtax in recent budgets, members of the highest income group would have actually experienced a decrease in federal taxes net of transfers as a result of the tax changes introduced by the present government (see table 2).

The Impact by Family Type

Table 4 shows how the effects of the tax changes vary with the type of census family taxed. The tax increases produced by the changes are largest for two-adult families with children. The tax burden in 1990 for an average two-adult family—that is, one with children and an income of \$61,343 will be \$1,530 larger than it would be in the absence of the tax changes introduced since 1984.

Census families that consist of a single adult will earn \$25,973 on average in 1990 and will pay \$545 more in taxes than they would pay under an extension of the pre-1984 tax system. Families of two or more adults without children will earn \$62,126 on average and will pay \$1,430 more.

The tax changes affect elderly taxpayers (that is, those over 65 years of age) less than they affect other groups. Of the 2.4 million taxpayers in elderly families, 554,000 (24 percent) will pay less taxes net of transfers in 1990 than they would pay if the pre-1984 system were still in place and 1.7 million (72 percent) will pay more. An average elderly family that consists of one adult will have an income of \$17,198 in 1990 and will pay \$244 more in taxes net of transfers, and an average elderly family that consists of two or more will have an income of \$40,355 and will pay \$854 more.

Table 5 breaks down census families by both family type and total income group and expresses the effects of the tax changes as percentages of consumable income. At the lowest income levels (below \$20,000), families with children actually benefit from the tax changes, thanks to the enrichment of the child tax credit and the conversion of exemptions into credits. At the middle income levels and above (over \$40,000), families with children lose more as a result of the tax changes than does the population as a whole. Elderly families with incomes of up to \$50,000 gain more or lose less as a result of the tax changes than do other childless families with similar incomes. On the other hand, upper-income elderly families with incomes above the

Table 5 The Net Impact in 1990 of Tax and Transfer Changes Since 1984, Expressed as a Percentage of Consumable Income by Household Type and Total Income Group

Total income group, dollars	Census family type						
	With children, 1 adult	With children, 2 or more adults	With elderly, 1 adult	With elderly, 2 or more adults	Other, 1 adult	Other, 2 or more adults	All families
0-10,000	-7.1	-7.5	-2.5	3.0	-0.2	-2.4	-1.4
10,001-15,000	-1.9	-1.6	0.5	0.3	2.6	1.8	0.9
15,001-20,000	-0.6	0.7	2.2	0.8	3.3	2.2	1.9
20,001-25,000	1.4	0.9	2.5	2.2	3.7	3.8	2.7
25,001-30,000	2.1	2.5	2.6	3.0	3.2	3.9	3.0
30,001-35,000	2.7	3.3	3.0	2.9	3.3	3.8	3.3
35,001-40,000	3.9	3.8	3.5	3.2	3.6	4.1	3.8
40,001-45,000	4.7	4.2	3.5	3.1	3.8	4.2	4.0
45,001-50,000	4.6	4.1	2.1	3.3	3.9	3.9	3.9
50,001-60,000	4.4	4.3	4.0	3.8	3.8	4.0	4.1
60,001-75,000	4.9	4.3	5.1	3.6	3.0	3.8	4.0
75,001-100,000	3.7	4.1	2.8	3.9	2.8	3.4	3.8
100,001-150,000	0.3	3.5	4.8	3.9	0.6	3.1	3.2
150,000 +	-2.2	1.4	2.7	1.4	-0.8	1.6	1.4
All income groups ...	0.0	3.5	0.8	2.5	2.5	3.5	2.7

aA positive amount indicates that families pay more money to the federal government as a result of the tax changes, a negative amount that they either receive money or pay less. Consumable income is all income, including transfer payments, less direct and indirect taxes.

Table 6 Losers in 1990 as a Result of Federal Tax and Transfer Changes Since 1984

Total income group, dollars	Census family type						
	With children, 1 adult	With children, 2 or more adults	With elderly, 1 adult	With elderly, 2 or more adults	Other, 1 adult	Other, 2 or more adults	All families
	<i>percentage of total</i>						
0-10,000	6.4	17.6	29.6	17.2	43.2	37.4	36.6
10,001-15,000	15.6	23.9	51.4	38.8	90.7	60.9	59.0
15,001-20,000	40.3	40.1	93.4	61.0	99.3	86.2	78.2
20,001-25,000	78.7	66.2	94.4	94.0	99.4	95.3	91.1
25,001-30,000	92.2	86.3	94.6	96.4	99.8	96.8	95.2
30,001-35,000	96.9	94.8	95A	99.1	99.6	98.7	97.6
35,001-40,000	100.0	98.7	92.8	98.4	98.2	99.2	98.5
40,001-45,000	98.5	99.7	94.2	98.7	96.3	99.7	98.7
45,001-50,000	100.0	99.1	76.5	97.6	97.3	99.7	98.3
50,001-60,000	96.9	99.5	83.1	98.9	98.5	99.7	99.1
60,001-75,000	98.8	99.4	92.9	96.9	92.9	98.3	98.3
75,001-100,000	80.3	98.1	52.4	93.2	93.2	98.0	97.3
100,001-150,000	52.1	91.4	93.5	88.4	68.3	92.9	90.9
150,000+	32.3	74.7	94.2	70.4	44.6	81.3	76.4
All income groups	55.4	92.1	61.4	85.1	85.3	94.7	85.3

aA loser is anyone who experiences *an* increase in federal taxes, less transfers, of more than \$10.

level at which the recapture of the old age security pension begins lose significantly more because of the tax changes than do other childless households at the same income levels.

Table 6 breaks down census families by family type and income and shows what percentage of each group will pay more in taxes in 1990 than it would in the absence of the tax measures introduced by the present government. As the table indicates, the groups that will have the fewest losers are low-income families with children, particularly single-parent families, and elderly taxpayers in the lowest income category. Families in the highest income category will also have a relatively small proportion of losers.

CONCLUSIONS

The present government has made major changes in Canada's federal tax and transfer system since it came to power in 1984. The main thrust of the changes has been to increase the tax burden borne by the average Canadian family by about \$1,000. The extent of the increase should come as no surprise, given that when the government took office it faced a record \$38.3 billion deficit, which obviously had to be brought down. Canadians should recognize that higher taxes are the price they must pay if they wish both to maintain a high level of government services and to reduce the deficit.

The increase in federal taxes net of transfers is largely the result of the increases in federal commodity taxes and income surtaxes. The reform of the personal income tax introduced in 1988 was an exercise in redistributing the tax burden rather than increasing it.

The tax changes introduced since 1984 are very progressive in the aggregate if family income is less than \$35,000 per year and roughly proportional if it is between \$35,000 and \$75,000. The tax changes are moderately regressive in the \$75,000 to \$150,000 income range and severely regressive in the case of incomes over \$150,000.

It is clear that middle-income families, particularly those with children, have borne the brunt of the recent tax increases. Families in the highest income categories have received a less than proportionate share of the increase in the tax burden, and families with children in the lowest income categories have actually enjoyed tax cuts as a result of the changes introduced since 1984.

In spite of the hefty tax increases introduced since 1984, the federal deficit in 1989-90 was nearly \$30 billion and 20 cents of each dollar of government spending came from borrowing. Further tax increases are inevitable, so it is important to make sure that the distribution of the growing tax burden is equitable. Distributional analysis performed with the SPSD/M, of the kind presented here, can help to ensure that the public is aware of the distributional impact of proposed tax changes.

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