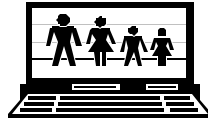




*SPSD/M*



# Release 9.0 Update

This guide is designed to provide SPSPD/M users with new information relating to the release of Version 9.0 algorithms and software.



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## WARNING

This software is complex. It is designed to be easy to use. However, the institutions and programs it models are themselves complex. **It is thus easy to make subtle mistakes that may result in significant estimation errors.**

To make the best use of the SPSD/M, please read the available documentation. Then if you have any problems or you are unsure of the simulation approach or results, please phone us at (613) 951-3774.

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## Overview

This document outlines the modifications that the SPSD/M has undergone subsequent to the version 8.1 release. This current release is called version 9.0 and users will note that the chapter headings in this Addendum correspond to guides in the manuals.

Users experiencing difficulties updating their black-box or glass-box applications to version 9.0 should contact Statistics Canada at (613) 951-3774.

This guide gives instructions pertaining to the installation of the SPSD/M on your system. The SPSD/M program and database files are stored in a compressed format. This means that the files are decompressed as part of the installation process. Be patient, installation time could be up to one-half hour.

If you are a new SPSD/M user, you should look at the *Introduction and Overview* Manual first, since much of the material here will be incomprehensible without some familiarity with SPSD/M concepts.

## Relationship to Existing Documentation

This Addendum is a guide to the changes in SPSD/M software between 8.1 and 9.0. This Addendum is intended to be used in conjunction with the other SPSD/M Guides included as part of the 9.0 release. The information in this Addendum supersedes the information in the documentation released with version 8.1.

It is worth noting that the examples in the *Introduction and Overview* will still function. However the screen images and the exact results may vary.

## Summary of Major Changes

### DATABASE and GROWTH

- Database built on 1997 data.

- The most recent demographic projections are incorporated in the weight files

- The most recent economic growth projections are incorporated into the parameter files

- A new matching procedure was developed for matching SCF and SHS

### TAX/TRANSFER ALGORITHMS AND PARAMETERS

- Parameter files updated through 2000 Tax forms and 2001 Budgets

- Tax Algorithms updated through 2000 Tax forms and 2001 Budgets

- Federal and provincial alternative minimum tax was revised

- Provincial home heating/energy rebates implemented in British Columbia, Alberta, Saskatchewan and Newfoundland

- New Brunswick low-income tax reduction added

- Federal Seniors Benefit was removed

All pre-1988 programs, parameters and variables were removed. Personal exemptions are no longer being modeled, both federally and provincially.

## **Legislative Changes Modeled**

The changes in tax transfer legislation that have been incorporated into the SPSD/M 9.0 are detailed in this section.

### **Federal Changes**

There have been no federal legislative changes modeled since version 8.1 which included the October 2000 Economic Statement.

### **Provincial Changes**

The changes reported in this section are derived from the 2001 provincial budgets and press releases, including the B.C. Budget Update from July 2001.

#### **Newfoundland**

- The Newfoundland Labour Sponsored Venture Capital Tax Credit program is now modeled and is expected to be implemented in 2002.
- The Newfoundland Home Heating Fuel Rebate to assist low-income families has been implemented for 2001. A one-time \$100 rebate for households that use home heating fuel and where an individual in that household receives any amount of the Newfoundland and Labrador Child Benefit, Newfoundland and Labrador HST credit or the Newfoundland and Labrador Seniors' Benefit will be paid. Only one person per household may apply for the rebate.
- NFLD Low Income Seniors' Benefit maximum increased to \$300 from \$200 annually, income phase down increased to \$14,000. The benefit will be reduced at a rate of 5% as family income rises from \$14,000 to \$20,000. These enhancements become effective in 2001.
- In 2000, the Newfoundland surtax was calculated as basic Newfoundland income tax less \$250 times 6% plus basic Newfoundland income tax less \$7,050 times 10%.
- Effective in 2001, the NFLD and Labrador Child Benefit income threshold for full benefits increased to \$16,744 while the income phase out threshold also increased to \$21,744.

#### **Prince Edward Island**

- PEI will base its new provincial income tax rates and brackets on the rates and thresholds used by the Federal Government effective January 1, 2001 as specified in the Federal Budget of February 29, 2000. The PEI provincial tax rates will be 9.8% up to \$30,544, 13.8% up to \$61,089 and 16.7% over \$61,089.
- PEI will maintain its new Low Income Tax Reduction and its previously established credits and surtax under the new system.

#### **Nova Scotia**

- The Nova Scotia Child Benefit will increase to \$445 for the first child, \$645 for the second child and \$720 for the third and subsequent child. When combined with the National Child

Benefit Supplement, the annual benefit will amount to \$1700 per child.

## **New Brunswick**

- The New Brunswick Low-Income Seniors' Benefit is available to recipients of the Widowed Spouse's Allowance or the Extended Spouse's Allowance. The extended eligibility rules came into effect in 1999.
- The New Brunswick Low-Income Tax Reduction was introduced. This program will provide a maximum \$260 non-refundable credit for the filer as well as their spouse or for an eligible equivalent-to-spouse. It is then reduced for net income over \$10,000 at a rate of 5%. The reduction is calculated at a family level but can be split amongst spouses.
- Beginning in 2001, New Brunswick will index non-refundable tax credit amounts and tax brackets to the federally indexed amounts. The non-refundable tax credit amounts will be increased to match federal amounts.
- In 2001, the New Brunswick high income surtax will be replaced with a new tax bracket at \$100,000 with a tax rate of 17.84%.
- The New Brunswick tax credit for charitable donations in excess of \$200 will increase from 16.52% to 17.84% in 2001.
- For 2001, the Disability tax credit amounts will increase from \$4293 to \$6,000; the caregiver tax credit amount will go from \$2,386 to \$3,500 and the education tax credit amount will double from \$200 to \$400 per month for full-time students.
- NB to continue to provide the \$100 Low-income Seniors Benefit as well as the NB Child Tax Benefit and Working Income Supplement in 2001.

## **Quebec**

- The Quebec provincial tax system will be indexed a year ahead of schedule, in January 2002.
- A new tax table will be implemented as of July 2001, reducing the three tax rates under the current system from 18%, 22.5% and 25% to 16%, 20% and 24% respectively. For the year 2001, the tax rates will be 17%, 21.25% and 24.5%.
- The rate used to convert amounts to non-refundable tax credits was reduced from 21.5% to 20% in July 2001, the rate for the year 2001 will be set to 20.75%.
- The Quebec tax rates will be 16%, 20% and 24% while the non-refundable tax credit rate will be 20% for the 2002 tax year.
- The reduction rate in the calculation of tax reduction for families is reduced to 3% for the 2001 taxation year, one year earlier than originally announced.

## **Ontario**

- For 2001, the Ontario alternative minimum tax will be calculated as 38.75 per cent of the additional tax attributable to the federal alternative minimum tax calculation.
- For 2002, the Ontario alternative minimum tax will be calculated as 37.81 per cent of the additional tax attributable to the federal AMT calculation.
- Effective January 1, 2002, the first Ontario tax rate would be reduced from 6.2% to 6.05% of taxable income up to \$30,814, and the middle tax rate would be reduced from 9.24% to 9.15% of taxable income between \$30,814 and \$61,629 (both amounts indexed after 2001).
- Effective January 1, 2003, the first Ontario tax rate would be reduced from 6.05% to 5.65%, and the middle tax rate would be reduced from 9.15% to 8.85%.
- Effective January 1, 2003, the surtax would be calculated as 56 per cent of Ontario income

tax in excess of \$4,491 (indexed after 2001).

- Proposed enhancements to the non-refundable tax credits for Ontario include increasing the Disability Credit from \$4293 to \$6000, increasing the Caregiver credit from \$2386 to \$3500, and doubling the Education credit per month of full-time enrolment from \$200 to \$400.

## **Manitoba**

- The tax rate in the top bracket will be reduced to 17.4% in 2001.
- The tax rate in the middle bracket will fall from 16.2% in 2001 to 15.4% in 2002.
- The tax rate in the middle bracket will fall from 15.4% in 2002 to 14.9% in 2003.
- Effective for 2001, the education amount has doubled to \$400 per month of full-time attendance.
- The Learning Tax Credit rate will be 4%.

## **Saskatchewan**

- Saskatchewan income tax credit amounts for seniors, persons with disabilities, caregivers and medical expenses will be fully indexed to inflation beginning in 2001.
- The education tax credit for full-time students is doubled to \$400 per month for 2001.
- The Saskatchewan Political Contribution Tax Credit was introduced, calculated as 75% of the first \$200 donated, 50% of the next \$350 donated and one-third of the next \$525 donated. The maximum tax credit available to a donor per year is \$500. The tax credit is non-refundable and non-transferable. Unused amounts may not be carried forward to subsequent taxation years.
- Non-refundable tax credit amounts for 2001 - Age Amount is \$3619 with an income threshold of \$26,941, Disability Amount is \$6000, and the maximum Caregiver Credit is \$3500. The medical expense tax credit will match federal amounts.
- The minimum Education Property Tax Credit will increase by \$75 from \$325 to \$400. The maximum Credit will increase by \$75 from \$600 to \$675 and from \$700 to \$775 for seniors.
- Effective May 1<sup>st</sup>, 2001, the maximum Saskatchewan Employment Supplement benefit increases by \$10 to \$18 per month and the maximum eligible income increases. The actual increase depends on the family income and number of children in the family.
- Effective June 1<sup>st</sup>, 2001, parents of children under 13 will get an extra benefit through the Saskatchewan Employment Supplement. This supplementary benefit ranges from \$46 to \$83 per month depending on the number of children.
- The Saskatchewan Employment Supplement minimum benefit of \$25 per month will take effect on June 1<sup>st</sup>, 2001.
- Saskatchewan residents receive \$25 for individuals and \$50 for families from the home heating assistance package for lower-income individuals and families to be delivered in April 2001 in conjunction with the Federal Goods and Services Tax credit.

## **Alberta**

- The Alberta Energy Tax Refund of up to \$300 will be paid in 2001. The refund is designed to help relieve the pressures of higher than normal home heating costs, gasoline, and other energy costs. Alberta residents 16 years of age and over are eligible to receive the refund.
- The Alberta non-refundable dividend tax credit rate is set at 32% of the value of the gross up of dividends. The effective rate to be applied to the taxable amount of dividends (line 120) will be 6.4%.
- The Alberta single income tax rate is lowered to 10% for 2001. The disability tax credit,

caregiver credit and education credit were all increased for 2001.

- Alberta's selective low-income tax reduction will be eliminated in 2001.

### **British Columbia**

- The one-time British Columbia Refundable Energy Credit of \$50 per individual or \$100 per family if eligible for the GST rebate was introduced.

- Effective for 2001, the combined BC Family Bonus and National Child Benefit Supplement will increase by \$72 to \$1332 per child per year. Income limits were raised to allow more families to receive the full amount of the benefit.

### **COMTAX**

-The adjustment on tobacco taxes on cigarettes in PEI, NS, NB, Quebec and Ontario at Canadian level (COMTAX).

-The increase on tobacco sticks in all the provinces (COMTAX).

-The increase on tobacco taxes in PEI, NS, NB, Quebec and Ontario (COMTAX).

### **Printed Documentation**

Version 9.0 is being shipped with all of its guides in electronic format. All guides can be accessed on-line using the included windows help file. The directory "/Doc" on the CD-ROM contains a printable version of all Guides for those users who wish printed versions of the other guides. These are PDF files and can be read on-line or printed using the Adobe Acrobat reader. The Adobe Acrobat reader can be installed from the /Doc directory on the CD-ROM. The self-extracting installation programs are called ar32e30.exe.

Once you have installed Adobe Acrobat on your system you can simply navigate to the \Doc directory on the CD-ROM using the File Manager or Explorer. Find the guide you wish to view or print and double-click it. Adobe will start up and open the file you selected.



## Installation Guide

Release 9.0 is disseminated on one CD-ROM or a demonstration version can be downloaded from the Internet World Wide Web. The CD-ROM contains information for both the SPSD/M 9.0 as well as for the on-line documentation.

Prior to installation of Release 9.0 it is **strongly** recommended that you either remove any existing \spsm directory from your system or rename it to \spsm80. If you wish to keep running the old version of SPSM, you should also rename the \spsd directory to \spsd80. SPSD/M 9.0 should be installed in new \spsm and \spsd directories. Version 9.0 has a \spsm directory structure that allows for ONLY a 32-bit operating system such as Windows NT/2000 or Windows 95/98/ME. The executable files are placed in the \spsm\win32 directory.

Install the SPSD/M 9.0 CD-ROM using the same general procedure described in the *Installation Guide*. Please read the entire installation guide and follow the instructions that apply to your system and the version of the model that you wish to install. The packages contained on the CD-ROM supersede the contents of the 8.0 package and upon installation will overwrite the 8.1 files if left in the default directory. The install.exe program on the CD-ROM should be run to perform the installation of the new version of the model.

Directory names may now be longer than 8 characters as the install.exe program has been converted to a 32-bit environment.

## Version 9.0 Package Contents

This section describes each package in the installation kit. The SPSD/M version 9.0 installation kit contains the following packages:

Package Name	Function	Directory
SPSM	The package contains all the executable programs and language-specific dialogue files. It also contains a directory of example control parameter include files described in the SPSD/M manuals.	\spsm
SPSD ( 5% )	This package contains the 5% sub-sample demographic weight files for the years 1988 through 2005.	\spsd
PARAMETERS	This package contains the control, database adjustment, and tax/transfer parameter files. Also included is the factors.txt file that contains the growth factors used to statically age the SPSD.	\spsd
GLASS_BOX	This package includes all necessary files, including template files for standard and alternate algorithms, for the 'glass box' user.	\spsm

Please see the *Programmer's Guide* for information on using SPSM in 'glass box' mode.

SPSD(100%)	This package contains demographic weight files for 1988 through 2005.	\spsd
HELP	This package contains on-line documentation. This documentation will only work under Windows NT/2000 or Windows 95/98/ME.	\spsm

## **On-line Documentation Installation**

The SPSD/M documentation is now installed as a package within the main SPSD/M installation. The documentation will ONLY work for 32-bit operating systems such as Windows NT/2000 or Windows 95/98/ME. The English version of the help file is called spsme.hlp and found in the spsm folder. Use the help facilities by navigating to the proper directory (e.g. by using the Explorer) and double clicking on the spsme.hlp file.

## **User's Guide**

There were no changes in this release.

## Tools User's Guide

### **spsmiter**

The Newton algorithm was changed to reduce the size of the adjustments at each iteration, in order to reduce cycling solutions. This forces the selection of one solution.

An error message is now produced when spsmiter is unable to launch the shell or command prompt.

## **Programmer's Guide**

Please **call** the SPSM hotline (951-3774) if you have any questions about using SPSM in glass-box mode.

## Algorithm Guide

The following section titled “Overview of algorithm changes” provides a list of the major changes organized by level of government and tax/transfer program. The following sections present the changes organized by the C++ language functions which were required to implement the programs. (A change in tax/transfer legislation may require changes to multiple functions.)

Note that the conversion from the C language to C++ has meant that the headers of all the files have changed and that the glass box code is now contained in \*.cpp files.

### Overview of algorithm changes

#### Federal

The federal alternative minimum tax was modified.

One module was removed – senben. The Federal Seniors Benefit is no longer modelled. Unemployment Insurance repayment was modified to work with new database.

A take up was added to the Employment Insurance Contribution Refund.

Employment Insurance benefit calculations were modified to work with new database. New variables are now available on the database which resulted in changes to the algorithm to incorporate these new variables while also resulting in the removal of some variables and parameters that are no longer required.

Taxable capital gains (imicapgt) can no longer become negative.

The taxable capital gains less the capital gains deduction on gifts of capital property (idcgless) was added to the charitable donations tax credit.

The first modelled year is now 1988. All pre-1988 programs were removed including the calculation of personal and related exemptions.

#### Provincial

Newfoundland Labour Sponsored Venture Capital Tax Credit Program was added.

Newfoundland Home Heating Fuel Rebate was added.

A Newfoundland second surtax level and rate was added.

PEI low-income tax reduction was modified

Nova Scotia low-income tax reduction was modified

New Brunswick low-income tax reduction was added.

New Brunswick low-income seniors’ benefit now available to SPA recipients

Quebec alternative minimum tax calculation was modified

Quebec political contribution tax credit was modified

Quebec taxable capital gains (imqcapgt) can no longer become negative

Quebec CPP/QPP deduction for self-employed workers was modified in the simplified tax form test

Ontario political contribution tax credit is now refundable

Saskatchewan Employment Supplementary benefit for children under 13

Saskatchewan Employment Supplement minimum benefit and take up

Saskatchewan Home Heating Assistance Rebate was added.  
Saskatchewan political contribution tax credit was added.  
Alberta Energy Rebate was added.  
British Columbia Home Heating Assistance Rebate was added.  
The provincial alternative minimum tax was modified.  
The provincial minimum tax carryover was added to all provinces except Quebec  
The first modeled year is now 1988. All pre-1988 programs were removed including the calculation of personal and related exemptions both federally and in Quebec.

## Changes by function

### **ccept**      **zero CCE for young kids if optimal**

The Federal Seniors Benefit program optimization was removed since this program is no longer modelled.

### **ctmod**      **Compute commodity taxes for individuals and households**

This module was updated to work with the new database.

### **drv**      **Tax/transfer calculator**

The Federal Seniors Benefit module (senben) was removed.

The Federal Sales Tax Credit module (txfstc) is now being calculated before provincial taxes (txprov) so that provincial programs have the ability to use the GST and heat rebate amounts.

### **famod**      **Compute family allowance**

The pre-1988 Quebec Family Allowance taxable benefit for 16 and 17 year olds was removed.

### **gis**      **Compute GIS/SPA for elderly**

The pre-1988 SPA extended eligibility flag and related take-up rates were removed.

### **gist**      **Compute Provincial GIS top-ups for elderly**

The enhanced eligibility for the New Brunswick low-income seniors' benefit was added. Beginning in 1999, recipients of SPA are also eligible for the benefit.

The change in hdtenu in the new database was implemented in the calculation of the Ontario property tax grant and the Alberta Seniors' Benefit.

Reference to the Federal Seniors' Benefit for eligibility for provincial top-ups were removed.

### **mem01**      **Compute memo items for reporting**

The Provincial Home Heating/Energy Rebate (impheatr) was added to Provincial Other Government Income (impoth).

The Federal Seniors Benefit (imisenb) and the Federal Seniors Benefit SPA (imisbspa) were removed from Federal Transfer Income (imftran) since the Federal Seniors Benefit is no longer modelled.

#### **mpc Calculate derived model parameters and do edits**

The module was updated to reflect the removal of the pre-1988 programs. The edit checks were revised to work with the existing parameters.

The Unemployment/Employment Insurance parameter test was removed since it is no longer required due to the availability of new variables on the database.

#### **oas Compute OAS for elderly**

The Federal Seniors Benefit module (senben) was removed.

#### **senben Compute Seniors Benefit for elderly**

This module was removed. The Federal Seniors Benefit is no longer modeled.

#### **txalta Compute provincial taxes for Alberta**

The Alberta Energy Rebate program was implemented.

The calculation of Alberta Minimum Tax was revised, the parameter AAMTOPT now includes an additional option and a new parameter AAMTPCTM was implemented.

The Alberta minimum tax carryover is now modelled.

#### **txbc Compute provincial taxes for B.C.**

The British Columbia Home Heating Assistance Rebate program was implemented.

The calculation of British Columbia Minimum Tax was revised, the parameter CAMTOPT now includes an additional option and a new parameter CAMTPCTM was implemented.

The British Columbia minimum tax carryover is now modelled.

The British Columbia venture capital tax credit is no longer modelled since the variable is no longer available on the database.

The British Columbia provincial health care surtax (CHCM) was removed since it was dropped in 1987.

The British Columbia provincial tax reduction cut-off (CPTC) was removed since it was dropped in 1986.



## **txcalc**      **Compute federal income tax**

The calculation of the Federal Alternative Minimum Tax was revised. New parameters added were AMTNEGTI to allow taxable income to be negative for the purposes of minimum tax calculation, AMTDIV to define the proportion of taxable dividends to include, AMTSTK to define the proportion of stock options to include, AMTFORTX to represent the tax rate for foreign income in the calculation of the special foreign tax credit, and AMTINCRT to provide the overall inclusion rate for Federal Alternative Minimum Tax calculations. AMTPRVDF was implemented to define the concept of the additional tax due to minimum tax calculations that is to be used in the calculation of provincial alternative minimum tax.

The federal tax reduction program was removed since it was dropped in 1986.

## **txctc**      **Compute child tax credit**

The parameter CTCIFLAG was removed since social assistance income is always included in net income after 1987.

## **txfstc**      **Compute federal sales tax credit**

The parameter CTCIFLAG was removed since social assistance income is always included in net income after 1987.

The parameter FSTCFLAG (Federal Sales Tax Credit Flag) was removed since the Federal Sales Tax Credit program is active for the years modelled. The Federal Sales Tax Credit Reform – Age parameter (FSTCREF) was removed since the credit is only available to individuals 19 and over beginning in 1988.

## **txhstr**      **Compute family-related deductions or credits**

The pre-1988 personal exemptions were removed. The parameter PEROPT (Personal exemption/credit option) was also removed since only tax credits will be calculated for the years modelled.

## **txinet**      **Compute net income**

The pre-1988 personal exemption programs and options were removed.

The calculation of imicapgt (taxable capital gains) was revised to disallow negative values.

The Employment Insurance Repayment program was revised to work with the new database.

A take up rate for the Employment Insurance Contributions Refund was added since individuals with low employment earnings must apply for the refund.

## **txitax**      **Compute taxable income**

The pre-1988 personal exemption programs and options were removed.

The calculation of the charitable donations tax credit now includes the new variable idcgless, the taxable capital gains less capital gains deduction on gifts of capital property (line 339 of Schedule 9).

### **txman**      **Compute provincial taxes for Manitoba**

The calculation of Manitoba Minimum Tax was revised, the parameter MAMTOPT now includes an additional option and a new parameter MAMTPCTM was implemented.

The Manitoba minimum tax carryover is now modelled.

The pre-1988 parameters were removed. The parameters defining calculation options for exemptions/credits were removed since exemptions are no longer modelled.

The change in hdtenu in the new database was implemented in the calculation of the Manitoba homeowners school tax assistance program.

### **txnb**      **Compute provincial taxes for New Brunswick**

The calculation of New Brunswick Minimum Tax was revised, the parameter BAMTOPT now includes an additional option and a new parameter BAMTPCTM was implemented.

The New Brunswick minimum tax carryover is now modelled.

The New Brunswick low-income tax reduction is now modelled.

### **txnfl**      **Compute provincial taxes for Newfoundland**

The calculation of Newfoundland Minimum Tax was revised, the parameter NAMTOPT now includes an additional option and a new parameter NAMTPCTM was implemented.

The Newfoundland minimum tax carryover is now modelled.

The Newfoundland labour-sponsored venture capital tax credit is now implemented.

New parameters were added to the calculation of the Newfoundland surtax. A second level was added (NSCI2) as well as the rate (NSF2).

The Newfoundland Home Heating Fuel Rebate was implemented.

Pre-1988 parameters were removed.

The Newfoundland Stock Savings Plan and Venture Capital Tax Credit program was removed since there were not enough records on the database in order to impute the venture capital tax credit.

### **txns**      **Compute provincial taxes for Nova Scotia**

The calculation of Nova Scotia Minimum Tax was revised, the parameter VAMTOPT now

includes an additional option and a new parameter VAMTPCTM was implemented.

The Nova Scotia minimum tax carryover is now modelled.

The income test for the Nova Scotia low-income tax reduction was modified to include social assistance income and net federal supplements.

Pre-1988 parameters were removed.

The Nova Scotia Home Ownership Savings Plan Tax Credit was removed since there were not enough records on the database to impute the amount contributed to a home ownership savings plan.

### **txont      Compute provincial taxes for Ontario**

The calculation of Ontario Minimum Tax was revised, the parameter OAMTOPT now includes an additional option and a new parameter OAMTPCTM was implemented.

The Ontario minimum tax carryover is now modelled.

A new flag (OPTCFLAG) was added to allow the Ontario political contribution tax credit to be refundable.

The calculation for the Ontario home ownership tax credit was removed due to lack of data.

Pre-1988 exemptions and programs were removed.

### **txpei      Compute provincial taxes for P.E.I.**

The calculation of Prince Edward Island Minimum Tax was revised, the parameter PAMTOPT now includes an additional option and a new parameter PAMTPCTM was implemented.

The Prince Edward Island minimum tax carryover is now modelled.

The calculation of the Prince Edward Island low-income tax credit was revised to reflect tax forms.

### **txqcalc      Compute income tax (Quebec)**

The Quebec Alternative Minimum Tax calculation was updated. New parameters added include QAMTNEGTI to allow taxable income to be negative, QAMTDIV represents the limit for taxable dividends used to determine if minimum tax has to be calculated, QAMTCBX allows the basic exemption to be calculated when applicable, QAMTRPFLG determines if RRSP/RPP income is to be included in the calculation of adjusted taxable income, and QAMTRITC determines if the retirement income tax credit can be deducted. The overall inclusion rate is included in QAMTINCRT. The parameter QCAPRAT was removed while the capital gains proportion is now determined by QAMTINCRT less

QCAPGIR.

The calculation of the Quebec Political Contribution Tax Credit was revised.

Pre-1988 Quebec personal exemptions calculations, along with their parameters and flags, were removed.

**txqhstr**      **Compute family-related deductions or credits (Quebec)**

The pre-1988 Quebec personal exemptions calculations, along with their related parameters and flags, were removed.

**txqinet**      **Compute net income (Quebec)**

The pre-1988 database activation parameters were removed.

The calculation of imqcapgt (taxable capital gains) was revised to disallow negative values.

The application of the Quebec self-employed CPP/QPP contribution deduction (imqcppse) was revised to reflect the Quebec tax forms.

**txqitax**      **Compute taxable income and individual credits (Quebec)**

The pre-1988 Quebec personal exemptions calculations, along with their related parameters and flags, were removed.

**txsask**      **Compute provincial taxes for Saskatchewan**

The calculation of Saskatchewan Minimum Tax was revised, the parameter SAMTOPT now includes an additional option and a new parameter SAMTPCTM was implemented.

The Saskatchewan minimum tax carryover is now modelled.

The supplementary benefit for children under 13 was added to the calculation of the Saskatchewan Employment Supplement. The Saskatchewan Employment Supplement minimum benefit is now implemented with the addition of a new parameter SESMIN. Receipt of this supplement is not automatic, families must apply for it, therefore a take up was also added (SESTK).

The Saskatchewan Political Contribution Tax Credit is now modelled.

The Saskatchewan Home Heating Assistance Rebate has been implemented.

Pre-1988 exemption options have been removed.

**ui**      **Compute UI benefits**

This module was updated to reflect changes in the 1997 database. The variable for the penalty for voluntary quits (ucquitp) was removed since it is no longer available on the

database.

This variable ucwkh is no longer needed since the actual number of hours worked in the qualifying period is now available on the database (uchrwk).

The minimum weeks divisor is now available on the 1997 database therefore UIBXWK is no longer required and the UIEIDIVOPT parameter has been changed to reflect the availability of the actual minimum divisor used.

The model now incorporates the benefit calculations for new entrants and re-entrants since this variable is now available on the database. The parameter UINEREHRMIN was added to handle the minimum hours required to qualify for benefits for new entrants and re-entrants.

In the previous version, there was an option to treat training weeks as regular weeks. Given the fact that training benefits exist under new names under the EI program, this option was removed.

Changes were made to claim type (ucbtyp). A new category for other types of benefits was added which will include everything not reported under regular, sickness, maternity, parental or training. Parameters were added to allow the user to increase the dollar amount (UIOTHBNFCT) and the claim duration (UIOTHWKFCT) of other benefits. New variables have been added: ucothbr gives the weekly payment rate for other benefit types while ucothwk gives the number of weeks spent in other types of benefits during the claim.

## Parameter Guide

This section describes new parameters as well as conceptual changes that have occurred to SPSM tax/transfer parameters. Parameters which have been deleted, or whose interpretations have changed, are identified in this section by a preceding asterisk.

### Control Parameters

No additions or deletions in this release.

### Adjustment Parameters

#### New Parameters

##### **GFCGLESS: Growth Factor: TCG Less Cap Gains Ded on Cap Prop Gifts**

The value for the value of taxable capital gains minus the capital gains deduction on gifts of capital property (idcgless) is always multiplied by this value. This allows for the growth from a base year to represent current year values.

#### Deleted Parameters

##### **\*GFHMKT: Adjustment Factor: Market value of home**

This parameter was removed since the variable fxhmkmt is not available on the Survey of Household Spending.

##### **\*GFHMORT: Adjustment Factor: Mortgage value outstanding**

This parameter was removed since the variable fxhmort is not available on the Survey of Household Spending.

##### **\*GFHOSSLF: Growth Factor: Ontario HOSP contributions - self (598)**

This parameter was removed since there were not enough records on the database in order to impute the amount contributed by an individual to a home ownership savings plan.

##### **\*GFHOSSPO: Growth Factor: Ontario HOSP contributions – spouse (599)**

This parameter was removed since there were not enough records on the database in order to impute the amount contributed by a spouse to a home ownership savings plan.

##### **\*GFINTPL: Adjustment Factor: Interest on personal loans**

This parameter was removed since the variable fxintpl is not available on the Survey of Household Spending.

**\*GFMORTI: Adjustment Factor: Mortgage interest paid**

This parameter was removed since the variable fxmorti is not available on the Survey of Household Spending.

**\*GFVENCAP: Growth Factor: Venture Capital Tax Credit (564)**

This parameter was removed since there were not enough records on the database to impute the venture capital tax credit.

## **Tax/Transfer Parameters**

### **Modified Parameters**

#### **UITARGET, SATARGET**

The maximum increase or decrease in UI/EI beneficiaries and SA beneficiaries is around 75% of the initial number of beneficiaries set as targets in the base year. Maximum adjustment may vary by province.

Because of the reweighting process, the values of UITARGET in the base year is not always 0.5 but are set to meet the target values.

**\*AAMTOPT: Alta. alternative minimum tax option (1=none, 2=% fed, 3=fed adj income, 4=% min amt)**

When Alberta tax on taxable income is calculated (ATXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When AAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When AAMTOPT is set to 2, then a percentage (AAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamprv) is added to the basic provincial tax (imbpt). The definition of imamprv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using AAMTPCTF.

When AAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the AAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using AAMTTX.

When AAMTOPT is set to 4, then a percentage (AAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using AAMTPCTM.

**\*BAMTOPT: N.B. alternative minimum tax option (1=none, 2=% fed, 3=fed adj income,**

#### **4=% min amt)**

When New Brunswick tax on taxable income is calculated (BTXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When BAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When BAMTOPT is set to 2, then a percentage (BAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamtprv) is added to the basic provincial tax (imbpt). The definition of imamtprv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using BAMTPCTF.

When BAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the BAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using BAMTTX.

When BAMTOPT is set to 4, then a percentage (BAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using BAMTPCTM.

#### **\*CAMTOPT: B.C. alternative minimum tax option (1=none, 2=% fed, 3=fed adj income, 4=% min amt)**

When British Columbia tax on taxable income is calculated (CTXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When CAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When CAMTOPT is set to 2, then a percentage (CAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamtprv) is added to the basic provincial tax (imbpt). The definition of imamtprv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using CAMTPCTF.

When CAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the CAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using CAMTTX.

When CAMTOPT is set to 4, then a percentage (CAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using CAMTPCTM.



**\*MAMTOPT: Man. alternative minimum tax option (1=none, 2=% fed, 3=fed adj income, 4=% min amt)**

When Manitoba tax on taxable income is calculated (MTXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When MAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When MAMTOPT is set to 2, then a percentage (MAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamprv), is added to the basic provincial tax (imbpt). The definition of imamprv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using MAMTPCTF.

When MAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the MAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using MAMTTX.

When MAMTOPT is set to 4, then a percentage (MAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using MAMTPCTM.

**\*NAMTOPT: NFLD alternative minimum tax option (1=none, 2=% fed, 3=fed adj income, 4=% min amt)**

When Newfoundland tax on taxable income is calculated (NTXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When NAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When NAMTOPT is set to 2, then a percentage (NAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamprv) is added to the basic provincial tax (imbpt). The definition of imamprv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using NAMTPCTF.

When NAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the NAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using NAMTTX.

When NAMTOPT is set to 4, then a percentage (NAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using NAMTPCTM.

**\*OAMTOPT: Ont. alternative minimum tax option (1=none, 2=% fed, 3=fed adj inc, 4=% min amt)**

When Ontario tax on taxable income is calculated (OTXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When OAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When OAMTOPT is set to 2, then a percentage (OAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamtrv) is added to the basic provincial tax (imbpt). The definition of imamtrv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using OAMTPCTF.

When OAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the OAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using OAMTTX.

When OAMTOPT is set to 4, then a percentage (OAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using OAMTPCTM.

**\*PAMTOPT: P.E.I. alternative minimum tax option (1=none, 2=% fed, 3=fed adj inc, 4=% min amt)**

When Prince Edward Island tax on taxable income is calculated (PTXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When PAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When PAMTOPT is set to 2, then a percentage (PAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamtrv) is added to the basic provincial tax (imbpt). The definition of imamtrv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using PAMTPCTF.

When PAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the PAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using PAMTPCTF.

When PAMTOPT is set to 4, then a percentage (PAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using PAMTPCTM.

**\*SAMTOPT: Sask. alternative minimum tax option (1=none, 2=% fed, 3=fed adj inc, 4=% min amt)**

When Saskatchewan tax on taxable income is calculated (STXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When SAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When SAMTOPT is set to 2, then a percentage (SAMTPCTF) of the additional federal tax triggered by the federal minimum tax (imamprv) is added to the basic provincial tax (imbpt). The definition of imamprv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using SAMTPCTF.

When SAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the SAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using SAMTTX.

When SAMTOPT is set to 4, then a percentage (SAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using SAMTPCTM.

**\*VAMTOPT: N.S. alternative minimum tax option (1=none, 2=% fed, 3=fed adj inc, 4=% min amt)**

When Nova Scotia tax on taxable income is calculated (VTXFLG = 1), there are four options as to how to calculate the provincial minimum tax.

When VAMTOPT is set to 1, then no provincial alternative minimum tax or minimum tax carryover is calculated.

When VAMTOPT is set to 2, then a percentage (VAMTPCTF) of the additional federal tax triggered by the minimum tax (imamprv) is added to the basic provincial tax (imbpt). The definition of imamprv is determined by the provincial vector AMTPRVDF. The provincial minimum tax carryover credit (impminco) is calculated using VAMTPCTF.

When VAMTOPT is set to 3, the income used in the provincial tax calculation is replaced by the net income used for alternative tax purposes (imamtinc) for people who triggered the federal minimum tax. Then the VAMTTX rate, usually set to the smallest non-zero tax rate, is applied in order to get the provincial tax before the non-refundable tax credits. The provincial minimum tax carryover credit (impminco) is calculated using VAMTTX.

When VAMTOPT is set to 4, then a percentage (VAMTPCTM) of the minimum tax triggered by the federal minimum tax calculations represents the basic provincial tax (imbpt). Provincial surtaxes are then calculated using this amount. The provincial minimum tax carryover credit (impminco) is calculated using VAMTPCTM.

## **New Parameters**

### **AAMTPCTM: Alta. amt rate as pct of federal minimum tax amount**

When Alberta tax on taxable income is calculated (ATXFLG=1) and AAMTOPT is set to 4, then a percentage (AAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

### **AHEATFLG: Alberta Energy Tax Refund activation flag**

When AHEATFLG is turned on, persons aged 16 or over will receive an Alberta Energy Tax Refund (AHEATREB) from the Alberta government for assistance with home heating expenses. The value of the refund is held in impheatr.

### **AHEATREB: Alberta Energy Tax Refund amount**

When AHEATFLG is turned on, persons aged 16 or over will receive an Alberta Energy Tax Refund (AHEATREB) from the Alberta government for assistance with home heating expenses. The value of the refund is held in impheatr.

### **AMTDIV: Alternative minimum tax: percentage of taxable dividends**

This parameter represents the portion of taxable dividends that may be used to reduce the adjusted taxable income in the calculation of the federal alternative minimum tax.

### **AMTFORTX: Alternative minimum tax: Foreign Income Tax Rate**

This parameter represents the portion of foreign income tax paid (idfortx) that may be used in the calculation of the special foreign tax credit required for the federal alternative minimum tax.

### **AMTINCRT: Alternative minimum tax: Inclusion Rate**

This parameter represents the overall inclusion rate for alternative minimum tax calculations. The non-taxable portion of capital gains to include in the calculation of adjusted taxable income is derived by AMTINCRT less CAPGIR. Only this proportion of the net non-deducted capital losses can be used to derive the adjusted taxable income for minimum tax purposes.

### **AMTNEGTI: Alternative minimum tax: Allow Negative Taxable Income Flag**

When this parameter is set to 1, taxable income for the purposes of the federal alternative minimum tax is allowed to be negative. Taxable income is recalculated allowing it to be negative.

When this parameter is set to 0, taxable income for the purposes of the federal alternative minimum tax is set to imitax, which can not be negative.

### **AMTPRVDF: Alternative minimum tax: prov. tax difference definition [prov]**

This parameter contains the provincial vector to define the concept of the additional tax due to minimum tax calculations that is to be used in the calculation of provincial alternative minimum tax. This parameter is used in conjunction with the provincial alternative minimum tax option parameter when it is set to 2 (to calculate the provincial minimum tax as a percentage of the additional federal tax due).

When the value is set to 0, the provincial minimum tax is calculated as a percentage of the difference between the final federal tax (including surtaxes) based on federal minimum tax calculations and the final federal tax calculated prior to the application of the alternative minimum tax.

When the value is set to 1, the provincial minimum tax is calculated as a percentage of the minimum amount payable less the special foreign tax credit and the regular tax payable.

When the value is set to 2, the provincial minimum tax is calculated as a percentage of the minimum amount due to minimum tax calculations less the regular tax payable.

When the value is set to 3, the provincial minimum tax is calculated as a percentage of the minimum amount due to minimum tax calculations less the basic federal tax.

The resulting variable (imamprv) contains the appropriate concept for calculating the provincial minimum tax. For those provinces that calculate provincial minimum tax as a percentage of additional federal tax, imamprv is multiplied by the appropriate provincial rate of federal minimum tax.

#### **AMTSTK: Alternative minimum tax: Stock Option Proportion**

This parameter represents the portion of the stock option and shares deductions from line 249 (imstkded) that must be added back to taxable income in the calculation of the federal alternative minimum tax.

#### **BAMTPCTM: N.B. amt rate as pct of federal minimum tax amount**

When New Brunswick tax on taxable income is calculated (BTXFLG=1) and BAMTOPT is set to 4, then a percentage (BAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

#### **BTRBAS: Base N.B. low income tax reduction**

This is the base amount for the New Brunswick Low income tax reduction.

Announced in the 2001 budget, the maximum Low Income Tax Reduction is equal to the sum of a base amount (BTRBAS) and an amount for a spouse or equivalent-to-spouse (BTRSP). It is then reduced for net income over BTRTD at a rate of BTRRR. The reduction cannot be more than taxes owing. The reduction is calculated at a family level but can be split amongst spouses.

#### **BTRRR: N.B. low income tax reduction Reduction Rate**

This is the reduction rate for the New Brunswick Low income tax reduction.

Announced in the 2001 budget, the maximum Low Income Tax Reduction is equal to the sum of a base amount (BTRBAS) and an amount for a spouse or equivalent-to-spouse (BTRSP). It is then reduced for net income over BTRTD at a rate of BTRRR. The reduction cannot be more than taxes owing. The reduction is calculated at a family level but can be split amongst spouses.

**BTRSP: N.B. low income tax reduction for spouse or equivalent-to-spouse**

This is the married or equivalent-to-married amount for the New Brunswick Low income tax reduction.

Announced in the 2001 budget, the maximum Low Income Tax Reduction is equal to the sum of a base amount (BTRBAS) and an amount for a spouse or equivalent-to-spouse (BTRSP). It is then reduced for net income over BTRTD at a rate of BTRRR. The reduction cannot be more than taxes owing. The reduction is calculated at a family level but can be split amongst spouses.

**BTRTD: N.B. low income tax reduction Turndown**

This is the turndown for the New Brunswick Low income tax reduction.

Announced in the 2001 budget, the maximum Low Income Tax Reduction is equal to the sum of a base amount (BTRBAS) and an amount for a spouse or equivalent-to-spouse (BTRSP). It is then reduced for net income over BTRTD at a rate of BTRRR. The reduction cannot be more than taxes owing. The reduction is calculated at a family level but can be split amongst spouses.

**CAMTPCTM: B.C. amt rate as pct of federal minimum tax amount**

When British Columbia tax on taxable income is calculated (CTXFLG=1) and CAMTOPT is set to 4, then a percentage (CAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

**CHEATFAM: British Columbia Refundable Energy Credit for families**

This is the amount a qualifying person who lives with a spouse or child would receive for the British Columbia Refundable Energy Credit (impheatr) for relief of heating expenses. It is calculated when CHEATFLG is turned on.

See CHEATFLG for more information.

**CHEATFLG: British Columbia Refundable Energy Credit activation flag**

When CHEATFLG is turned on, persons will receive a Refundable Energy Credit (impheatr) from the British Columbia government for assistance with heating expenses. In order to receive it, a person has to have received a GST credit (imfstc). Qualifying persons who live with a spouse or children receive CHEATFAM and others receive CHEATSNG.

### **CHEATSNG: British Columbia Refundable Energy Credit for singles**

This is the amount a qualifying single person with no children would receive for the British Columbia Refundable Energy Credit (impheatr) for relief of heating expenses. It is calculated when CHEATFLG is turned on.

See CHEATFLG for more information.

### **MAMTPCTM: Man. amt rate as pct of federal minimum tax amount**

When Manitoba tax on taxable income is calculated (MTXFLG=1) and MAMTOPT is set to 4, then a percentage (MAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

### **NAMTPCTM: NFLD amt rate as pct of federal minimum tax amount**

When Newfoundland tax on taxable income is calculated (NTXFLG=1) and NAMTOPT is set to 4, then a percentage (NAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

### **NBSBSPA: N.B. Low-Income Seniors' Benefit - SPA eligibility**

When this flag is set to 1, people who received either the federal Guaranteed Income Supplement (GIS), the Widowed Spouse's Allowance or the Extended Spouse's Allowance (SPA) are eligible to receive this benefit (imigist) for New Brunswick. When both spouses receive GIS and/or SPA, only one spouse may receive the Low-Income Seniors' Benefit.

When this flag is set to 0, only those who have received GIS would be eligible for the New Brunswick Low-Income Seniors' Benefit. When both spouses receive GIS, only one spouse may receive the Low-Income Seniors' Benefit.

In the SPSD/M, the spouse with the lowest net income receives the benefit (or the oldest spouse when both spouses have the same net income).

### **NHEATFLG: Newfoundland home heating fuel rebate activation flag**

When NHEATFLG is turned on, eligible households will receive a home heating fuel rebate (NHEATREB) from the Newfoundland government for assistance with heating fuel expenses. The rebate is payable to households that use home heating fuel as the primary source of heat and where an individual in that household receives any amount of the Newfoundland and Labrador Child Benefit, Newfoundland and Labrador HST credit or the Newfoundland and Labrador Seniors' Benefit. Households that use electricity or wood as the primary heat source are not eligible for the rebate. The value of the rebate is held in impheatr.

### **NHEATREB: Newfoundland home heating fuel rebate amount**

When NHEATFLG is turned on, eligible households will receive this amount as a home heating fuel rebate from the Newfoundland government for assistance with heating fuel expenses. The rebate is payable to households that use home heating fuel as the primary source of heat and where an individual in that household receives any amount of the Newfoundland and Labrador Child Benefit, Newfoundland and Labrador HST credit or the Newfoundland and Labrador Seniors' Benefit. Households that use electricity or wood as the primary heat source are not eligible for the rebate. The value of the rebate is held in impheatr.

**NLVCMAX: Maximum NFLD labour-sponsored funds tax credit allowed**

This is the maximum value for the Newfoundland labour sponsored funds tax credit (implvctc). The credit is derived as a proportion NLVCRT of the cost of the funds bought (idlabtvg) up to a maximum value NLVCMAX.

**NLVCRT: Percent of NFLD labour-sponsored funds cost allowed as credit**

This is the rate for the Newfoundland labour sponsored funds tax credit (implvctc). The credit is derived as a proportion NLVCRT of the cost of the funds bought (idlabtvg) up to a maximum value NLVCMAX.

**NSCI2: Newfoundland provincial surtax level 2**

This is the level of provincial tax payable (imtxp) above which a surtax at the rate of NSF2 applies.

For Newfoundland, the SPSM calculates provincial surtax (impsur) as NSF percent of provincial taxes (imtxp) above the level NSCI plus NSF2 percent of provincial taxes (imtxp) above the level NSCI2.

**NSF2: Newfoundland provincial surtax rate 2**

This is the surtax rate applied to the amount of provincial tax payable above the level NSCI2.

For Newfoundland, the SPSM calculates provincial surtax (impsur) as NSF percent of provincial taxes (imtxp) above the level NSCI plus NSF2 percent of provincial taxes (imtxp) above the level NSCI2.

**OAMTPCTM: Ont. amt rate as pct of federal minimum tax amount**

When Ontario tax on taxable income is calculated (OTXFLG=1) and OAMTOPT is set to 4, then a percentage (OAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

**OPTCFLAG: Ontario political contribution refundable tax credit flag**

When the parameter OPTCFLAG is set to 1, beginning in 1999, the Ontario Political



Contribution Tax Credit is a refundable tax credit and is added to `imptc`. When this parameter is set to 0, the Ontario Political Contribution Tax Credit is non-refundable and is added to `imnptc`.

See also `OPTC` and `OPTCBEN`.

**PAMTPCTM: P.E.I. amt rate as pct of federal minimum tax amount**

When Prince Edward Island tax on taxable income is calculated (`PTXFLG=1`) and `PAMTOPT` is set to 4, then a percentage (`PAMTPCTM`) of the minimum federal tax due to the minimum tax is used as basic provincial tax (`imbpt`). This calculated value is used in the determination of the provincial surtax.

**QAMTCBX: Quebec Alternative Minimum Tax Calculate Basic Exemption**

When this parameter is set to 0, the basic exemption used in the calculation of the Quebec alternative minimum tax is `QAMTX`.

When this parameter is set to 1, the basic exemption for the purposes of the Quebec alternative minimum tax is calculated as net income (`imqinet`) less taxable capital gains exemption (`imqcapgx`) divided by `QCAPAMTX`. This result is then added to `QAMTX` to determine the basic exemption.

See `QAMTXFLG` for program description.

**QAMTDIV: Quebec Alternative Minimum Tax Taxable Dividend Limit**

This parameter is used in the test to determine if the Quebec Alternative Minimum Tax should be calculated. Individuals with dividends (`imqidivt`) in excess of this amount will be subjected to the Alternative Minimum Tax calculation to determine if they will have to pay any additional amounts.

See `QAMTXFLG` for program description.

**QAMTINCRT: Quebec Alternative Minimum Tax Inclusion Rate**

This parameter represents the overall inclusion rate for the Quebec alternative minimum tax calculations. The non-taxable portion of capital gains to include in the calculation of adjusted taxable income is derived by `QAMTINCRT` less `QCAPGIR`. Only this proportion of the net non-deducted capital losses (`idcloss`) and the allowable business investment losses (`idiloss`) can be used to derive the adjusted taxable income for minimum tax purposes.

See `QAMTXFLG` for program description.

**QAMTNEGTI: Quebec Alternative Minimum Tax Allow Negative Taxable Income**

When this parameter is set to 1, taxable income for the purposes of the Quebec alternative minimum tax is allowed to be negative. Taxable income is recalculated allowing it to be negative.

When this parameter is set to 0, taxable income for the purposes of the Quebec alternative

minimum tax is set to imitax, which can not be negative.

See QAMTXFLG for program description.

**QAMTRITC: Quebec Alternative Minimum Tax Retirement Income Credit Deduction**

When this parameter is set to 0, the retirement income tax credit (imqrite) will be added back to the adjusted taxable income in the calculation of the Quebec Alternative Minimum Tax.

Beginning in 1998, this parameter is set to 1 allowing the retirement income tax credit to be used as a deduction in the calculation of the adjusted taxable income.

See QAMTXFLG for program description.

**QAMTRPFLG: RRSP/RPP included in Quebec Alternative Minimum Tax (1=include)**

When this flag is set to 1, RRSP and RPP deductions are included in the calculation of the Quebec Alternate Minimum Tax. Otherwise, they are not.

See QAMTXFLG for program description.

**SAMTPCTM: Sask. amt rate as pct of federal minimum tax amount**

When Saskatchewan tax on taxable income is calculated (STXFLG=1) and SAMTOPT is set to 4, then a percentage (SAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

**SESMIN: Sask Employment Supplement minimum benefit**

This parameter represents the minimum benefit for the Saskatchewan Employment Supplement. This minimum benefit became effective May 2001, thus the amount for 2001 was scaled to represent only those months in which it was applied. The minimum amount applies to the calculated value of the supplement with the additional benefit for children under 13. Families will receive this amount if their calculated benefit falls between \$1 and the minimum benefit.

See also imses.

**SESTK: Sask Employment Supplement take up by number of kids**

This is a take-up rate for the Saskatchewan Employment Supplement based on the number of eligible children in the family. A take up of 1.000 denotes that all eligible recipients (based on family income) would still receive the supplement. A value less than 1.000 would result in only that proportion still getting the supplement and the remainder would not. The first column denotes the number of eligible children in the family where 5 represent 5 or more children. The second column represents the proportion that will receive the supplement.

**SESYPI: Sask Employment Supplementary benefit for under 13 phase-in**

The Saskatchewan Employment Supplementary benefit for children under 13 is phased in by multiplying the benefit by this parameter.

**SESYR: Sask Employment Supplementary benefit for under 13 rate [number of kids]**

The maximum Saskatchewan Employment Supplementary benefit for children under 13 is derived by multiplying this parameter, which depends on the number of children, by the amount by which a family's employment income (up to SESMXIP) exceeds SESCI.

**SESYRR: Sask Employment Supplementary benefit for under 13 reduction rate**

This is the reduction rate used to reduce the Saskatchewan Employment Supplementary benefit for children under 13 when family income is greater than SESTD.

**SHEATFAM: Saskatchewan Home Heating Assistance Rebate for families**

This is the amount a qualifying person who lives with a spouse or child would receive for the Saskatchewan home heating rebate (impheatr) for relief of heating expenses. It is calculated when SHEATFLG is turned on.

See SHEATFLG for more information.

**SHEATFLG: Saskatchewan Home Heating Assistance Rebate activation flag**

When SHEATFLG is turned on, persons will receive a direct cash rebate (impheatr) from the Saskatchewan government for assistance with heating expenses. In order to receive it, a person has to have received a GST credit (imfstc). Qualifying persons who live with a spouse or children receive SHEATFAM and others receive SHEATSNG.

**SHEATSNG: Saskatchewan Home Heating Assistance Rebate for singles**

This is the amount a qualifying single person with no children would receive for the Saskatchewan home heating rebate (impheatr) for relief of heating expenses. It is calculated when SHEATFLG is turned on.

See SHEATFLG for more information.

**SPTC: Saskatchewan political contribution table [total donations, donation allowed]**

This table contains the figures necessary to calculate the Saskatchewan Political Contribution Tax Credit. The first column represents the dollar amount of total Saskatchewan political contributions to which the corresponding percentages of the third column are applied to calculate the total Allowable Saskatchewan Political Contribution Tax Credit. Only the first and third columns of the table need to be specified.

Note that the database variable (idprvpol) required for this program is zero for Saskatchewan until the 2001 database is implemented.

**SPTCBEN: Maximum Saskatchewan political tax credit allowed**

This parameter is the maximum Allowable Saskatchewan Political Tax Credit.

Note that the database variable (idprvpol) required for this program is zero for Saskatchewan until the 2001 database is implemented.

**UIEIDIVFLG: EI minimum divisor flag (EI only)**

When this parameter is flagged on, the EI minimum divisor rule is applied. This means that weekly earnings are adjusted by multiplying them by the ratio of weeks worked in the past 26 weeks, ucdivwk, over the maximum of the weeks worked over the past 26 weeks and the minimum divisor, UIEIDIV, which varies according to the local unemployment rate.

Note that ucdivwk has been imputed in such a way that the minimum divisor of the base year has already been incorporated. In other words, the variable is already the maximum of the weeks worked in the past 26 weeks and the minimum divisor of the base year. This means that there should be little or no change when this flag is turned on if the value of UIEIDIV is the same as the base year. Furthermore, since the value of ucdivwk is already at the maximum, changing UIEIDIV to make the program more generous will not have an impact without first modifying the database. See the section on the Reference Value Facility in the User's GuideUD\_1 for more information on how to modify the database.

This parameter applies only if UIEIOPT is set to 2 (December 1995 reform implemented in 1997)

**UIEINERFLG: Flag to check for hours for new entrants and re-entrants (EI only)**

When this parameter is flagged on, the minimum hours of employment in the qualifying period needed for a new entrant or re-entrant (ucnere) to be eligible for EI is UINEREHRMIN. Otherwise the regular test, UIREGHRMIN, is used.

This parameter applies only if UIEIOPT is set to 2 (December 1995 reform implemented in 1997).

**UIEIREFTK: EI contribution refund take up**

This is a take-up rate for the Employment Insurance Contributions Refund (imuicrf) which is available to individuals with employment income less than UIEIREF who apply for the refund. A take up of 1.000 denotes that all eligible recipients (based on employment income) would still receive the refund. A value less than 1.000 would result in only that proportion still getting the refund and the remainder would not.

**UINEREHRMIN: Minimum hours to qualify for new entrant or re-entrant (EI only)**

This parameter represents the minimum hours of employment in the qualifying period needed for a new entrant or re-entrant (ucnere) to be eligible for EI. The new entrant/re-entrant qualification test is only applied when UIEINERFLG is set to 1. Otherwise the regular test, UIREGHRMIN, is used.

This parameter applies only if UIEIOPT is set to 2 (December 1995 reform implemented in 1997).

**UIOTHBNFCT: UI other benefits per week adjustment factor (UI and EI)**

This parameter allows the user to increase the dollar amount of other benefits for all recipients of other benefits by up to twice the actual amount. Other types of benefits will include everything not included in regular, sickness, maternity, parental, fishing or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing benefits, and self-employed assistance.

The actual other benefit (ucothbr) is multiplied by the factor UIOTHBNFCT plus one(1). For example, setting UIOTHWKFCT to one will result in the amount of other benefits to be multiplied by 2; a factor of .5 would result in benefits being multiplied by 1.5.

This parameter applies to UI and EI programs.

**UIOTHWKFCT: UI other benefits weeks adjustment factor (UI and EI)**

This parameter allows the user to increase the claim duration of other benefits for all recipients of other benefits by up to twice the actual number of weeks on other benefits. Other types of benefits will include everything not included in regular, sickness, maternity, parental, fishing or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing benefits, and self-employed assistance.

The actual other benefit weeks (ucothwk) are multiplied by the factor UIOTHWKFCT plus one (1). For example, setting UIOTHWKFCT to one will result in the number of weeks of other benefits to be multiplied by 2; a factor of .5 would result in weeks being multiplied by 1.5.

This parameter applies to UI and EI programs.

**VAMTPCTM: N.S. amt rate as pct of federal minimum tax amount**

When Nova Scotia tax on taxable income is calculated (VTXFLG=1) and VAMTOPT is set to 4, then a percentage (VAMTPCTM) of the minimum federal tax due to the minimum tax is used as basic provincial tax (imbpt). This calculated value is used in the determination of the provincial surtax.

## **Deleted Parameters**

### **Pre-1988 Deleted Parameters**

The following parameters were removed since they belonged to programs that existed pre-1988. The majority of these parameters relate to the calculation of personal exemptions that were deducted from net income both federally and in Quebec. A number of parameters were removed since they were flags that will now always be flagged on for the years modeled.

**\*ADDEDFLAG: Database variable (added) activation flag**

- \*ALEXDEDFLG: Other employment expenses deducted after total income calculation
- \*AOPT: Age exemption/credit option [1=deduction, 2=credit]
- \*CAPGFLAG: Capital gains deduction flag
- \*CGIFLAG: Capital gains inclusion in interest income deduction flag
- \*CHCM: British Columbia provincial health care surtax
- \*CPPOPT: CPP/QPP contribution deduction/credit option [1=deduction, 2=credit]
- \*CPTC: British Columbia provincial tax reduction cut-in
- \*CTCIFLAG: Refundable tax credits social assistance income inclusion flag
- \*DEPNIFG: Include SA, etc. in dependant's net income
- \*DISOPT: Disability deduction/credit option [1=deduction, 2=credit]
- \*EAMAX: Maximum employment expenses
- \*EAOPT: Employment expense calculation option [1=deduction, 2=none]
- \*EAPRP: Employment expenses allowed – percent
- \*EDUCOPT: Education deduction/credit option [1=deduction, 2=credit]
- \*EMPLOFLAG: Database variable (emplo) activation flag
- \*FDSFTFLAG: Database variable (fdsft) activation flag
- \*FSTCFLAG: Federal sales tax credit flag
- \*FSTCREF: Federal sales tax credit reform – age
- \*FSURL3: Federal surtax level 3
- \*FSURR3: Federal surtax rate 3
- \*FTRRL: Federal tax reduction reduction level
- \*FTRRR: Federal tax reduction reduction rate
- \*MANRD: Manitoba tax reduction table (MNRDOPT=1) [federal reduction, net income]
- \*MCBCR: Manitoba cost-of-living basic credit rate
- \*MCOLOPT: Manitoba cost-of-living tax credit calculation option
- \*MDCROPT: Medical and charitable deduction/credit option [1=deduction, 2=credit]
- \*MINCARFLAG: Database variable (mincar) activation flag
- \*MNRDOPT: Manitoba tax reduction calculation option
- \*MNSUROPT: Manitoba surtax calculation option
- \*MSTC: Manitoba surtax cut-in
- \*MSTR: Manitoba surtax rate
- \*MTRBR: Manitoba tax reduction basic amount
- \*MTRF: Manitoba tax reduction fraction
- \*MTRSF: Manitoba tax reduction spousal factor
- \*MXFTR: Maximum federal tax reduction

**\*NORTHFLAG: Database variable (north) activation flag**  
**\*OCXM: Exemption for old dependent child**  
**\*OCXMR: Exemption reduction rate for old dependent child**  
**\*OCXMT: Exemption turndown for old dependent child**  
**\*OPSIOPT: Ontario property/sales tax credit income concept**  
**\*OPSTITD: Ontario property/sales tax credit income turndown**  
**\*OSPPE: Ontario sales tax credit % personal exemptions**  
**\*OSTCOPT: Ontario sales tax credit calculation option**  
**\*PARTLOFLAG: Database variable (partlo) activation flag**  
**\*PEROPT: Personal exemption/credit option [1=deduction, 2=credit]**  
**\*QAARC: Quebec availability allowance (refundable credit) [parity,\$]**  
**\*QAARCFLAG: Availability Allowance: Refundable Tax Credit**  
**\*QCAPGFLAG: Capital gains deduction flag**  
**\*QCTCDEPA: Quebec consumer tax credit dependant amount**  
**\*QCTCFLAG: Quebec consumer tax credit activation flag**  
**\*QCXMOPT: Quebec child exemption method option (1=pre-86 2=86+)**  
**\*QEMPLOFLAG: Database variable (emplo) activation flag**  
**\*QFARFLAG: Quebec family allowance repayment flag**  
**\*QFATFLAG: Make Provincial FA to 16 & 17 year olds taxable**  
**\*QMXT: Quebec married exemption turndown**  
**\*QNORTHFLAG: Database variable (north) activation flag**  
**\*QOCT: Quebec exemption turndown for children 18 and over**  
**\*QOCX: Quebec exemption for children 18 and over**  
**\*QPARTLOFLAG: Database variable (partlo) activation flag**  
**\*QREFOPT: Quebec deduction/credit option [1=deduction,2=credit]**  
**\*QSTD: Quebec standard deduction from net income**  
**\*QYCT: Quebec exemption turndown for children 16 or 17**  
**\*QYCX: Quebec exemption for children 16 or 17**  
**\*QYIDL: Quebec deduction limit for investment income**  
**\*SPAFLAG: Extended SPA eligibility probabilities flag**  
**\*SPAFE: SPA take-up rate: eligible female widow [age, probability]**  
**\*SPAME: SPA take-up rate: eligible male widower [age, probability]**  
**\*SRDOPT: Saskatchewan tax reduction calculation option**  
**\*STDED: Standard deduction from net income**  
**\*TUITOPT: Tuition deduction/credit option [1=deduction, 2=credit]**

**\*UICOPT: UI contributions deduction/credit option [1=deduction, 2=credit]**

**\*YCXM: Dependent child exemption**

**\*YCXMR: Dependent child exemption reduction rate**

**\*YINDL: Maximum interest and dividend income deduction**

**\*YPNOPT: Pension income deduction/credit option [1=deduction, 2=credit]**

### **Other Deleted Parameters**

**\*CVCFLAG: British Columbia venture capital tax credit flag**

There were not enough records on the database in order to impute the venture capital tax credit.

**\*CVCMAX: British Columbia maximum annual venture capital tax credit**

There were not enough records on the database in order to impute the venture capital tax credit.

**\*GISPTDFLAG: GIS income: Payroll tax deduction flag**

This parameter was introduced to model the initiative of the 1998 Federal budget to make the definition of income more consistent between programs such as the child tax benefit. The proposed changes were later withdrawn.

**\*NTCMAX: Newfoundland maximum stock and venture tax credit**

There were not enough records on the database in order to impute the venture capital tax credit.

**\*OHCMAX: Ontario maximum individual HOSP contribution**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

**\*OHIRF: Ontario HOSP family income reduction factor**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

**\*OHT: Ontario HOSP tax credit factor table**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

**\*QCAPRAT: QAMTX capital gains ratio**

This parameter is no longer needed due to the revisions in the alternative minimum tax algorithm for Quebec.

**\*SBBENM: Seniors Benefit maximum rate for couples**



The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBBENS: Seniors Benefit maximum rate for singles**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBFLAG: Activate calculation of Seniors Benefit**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBOPTFLG: Optimize Seniors benefit with OAS/GIS**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBPREM: Seniors Benefit premium over GIS**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBRL1: Seniors Benefit first benefit reduction plateau**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBRL2: Seniors Benefit Second reduction level**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBRR1: Seniors Benefit First reduction rate**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBRR2: Seniors Benefit Second Reduction Rate**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*SBSPA: Seniors Benefit maximum rate for SPA**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*UIBXWK: User defined behavioral response to minimum divisor [uer][rate] (EI only)**

This parameter is no longer necessary because the minimum divisor weeks (ucdivwk) are now on the database.

**\*UIEIDIVOPT: EI minimum divisor options (EI only)**

This parameter is no longer necessary because the minimum divisor weeks (ucdivwk) are now on the database.

**\*UIEHWCF: EI hours to weeks conversion factor (hours/week) (EI only)**

This parameter was replaced with a parameterized constant.

**\*UIEITRNFLAG: Modeling of UI training benefits flag (UI and EI)**

The treatment of UI/EI training benefits has been changed.

**\*UIEITRNREGFLG: UI training benefits turned into regular benefits (UI and EI)**

The treatment of UI/EI training benefits has been changed.

**\*UIMAXRETWKS: Maximum number of weeks - retirement (UI only)**

Retirement benefits are no longer available on the database.

**\*UIQPWKS: Additional waiting period for quitters (UI and EI)**

This parameter is no longer required since quitters are no longer available on the database.

**\*UIQUIRATE: Benefit rate for quitters in basic phase (UI and EI)**

This parameter is no longer required since quitters are no longer available on the database.

**\*UIRETMINWK: Minimum weeks to qualify for retirement benefits (UI only)**

Retirement benefits are no longer available on the database.

**\*UIWK26: Conversion rate of weeks worked (52 to 26 weeks) [prob][rate] (EI only)**

This parameter is no longer necessary because the minimum divisor weeks (ucdivwk) are now on the database.

**\*VHOSPMAX: Maximum Nova Scotia HOSP contributions per person**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

**\*VHOSPR: Nova Scotia qualified single parent family income adjustment rate**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

**\*VHOSPRM: Nova Scotia qualified family income adjustment rate**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

**\*VHOT: Nova Scotia HOSP credit rate [net income, tax credit rate]**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

**\*VHOTM: Nova Scotia HOSP credit rate: Married [family net income, tax credit rate]**

There were not enough records on the database in order to impute the amounts contributed to a home ownership savings plan.

## Variable Guide

This section includes descriptions of all new variables introduced in version 9.0. Variables which have been deleted, or whose interpretations have changed, are also described and are identified in this section by a preceding asterisk.

### Alphabetical Listing of Variables

#### New Variables

##### **ctnsna: Household Expenditure Net of Taxes – SNA Adjusted**

This household level variable contains all expenditure components net of their original commodity taxes after applying the tax removal parameter CTTXRM and adjusted to SNA level with the factor CTFAMSNA.

##### **ctnsna\_: Household Expenditure Net of Taxes [array] – SNA Adjusted**

This household level variable contains all expenditure components net of their original commodity taxes in each of the 48 household expenditure categories after applying the tax removal parameter CTTXRM and adjusted to SNA level with the factor CTFAMSNA.

##### **hdevmv: Expenditure Vector Matching Variable**

This variable helps in defining household categories for analysis of consumption expenditures and taxes. For more information see Family Expenditure Survey Data Imputations in Database Creation GuideRD\_1.

##### **idcgless: Taxable capital gains on gifts (339)**

This represents the value of taxable capital gains minus the capital gains deduction on gifts of capital property. The value for allowable charitable donations is the lesser of idcharit and CHATNF times net income plus 1-CHATNF times this variable.

##### **imamtrv: Federal minimum tax concept used for provincial minimum tax**

This variable contains the appropriate concept for calculating the provincial minimum tax when the provincial minimum tax option parameter is set to 2. The definition of this variable depends on AMTDFPRV, which contains a provincial vector of the different concepts for calculating provincial alternative minimum tax.

When the value of AMTDFPRV is set to 0, the provincial minimum tax is calculated as a percentage of the difference between the final federal tax (including surtaxes) based on federal minimum tax calculations and the final federal tax calculated prior to the application of the alternative minimum tax.

When the value of AMTDFPRV is set to 1, the provincial minimum tax is calculated as a percentage of the minimum amount payable less the special foreign tax credit and the regular

tax payable.

When the value of AMTDFPRV is set to 2, the provincial minimum tax is calculated as a percentage of the minimum amount due to minimum tax calculations less the regular tax payable.

When the value of AMTDFPRV is set to 3, the provincial minimum tax is calculated as a percentage of the minimum amount due to minimum tax calculations less the basic federal tax.

For those provinces that calculate provincial minimum tax as a percentage of additional federal tax, `imamtprv` is multiplied by the appropriate provincial rate of federal minimum tax.

**imminamt: Minimum Amount due to Federal Minimum Tax**

This variable represents the calculated minimum amount of tax under the Federal Alternative Minimum Tax calculation. Provinces may use this amount in their calculations of provincial minimum tax.

**impheatr: Provincial Home Heating Fuel/Energy Rebate**

This variable represents the provincial home heating rebate for those provinces that offer rebate or refund programs.

In Newfoundland, the program is activated by the flag `NHEATFLG` and provides assistance of `NHEATREB` to eligible households that use home heating fuel as a primary source of heat. To be an eligible household, there must be an individual in the household who receives any amount of the Newfoundland and Labrador Child Benefit, Newfoundland and Labrador HST credit or the Newfoundland and Labrador Seniors' Benefit.

In Saskatchewan, the program is activated by the flag `SHEATFLG` and provides assistance of `SHEATSNG` to individuals and `SHEATFAM` to families in receipt of the federal Goods and Services Tax Credit.

In Alberta, the program is activated by the flag `AHEATFLG` and provides assistance (`AHEATREB`) to all individuals aged 16 years or older.

In British Columbia, the program is activated by the flag `CHEATFLG` and provides a refundable energy credit of `CHEATSNG` to individuals and `CHEATFAM` to families in receipt of the federal Goods and Services Tax Credit.

**impminco: Provincial Minimum Tax Carryover**

This variable contains the value of the calculated provincial amount for minimum tax carryover credit. It is calculated only when the province's tax on taxable income flag is turned on and when the provincial alternative minimum tax is also activated. The value of the credit is calculated by multiplying `idmincar` by the appropriate provincial minimum tax percentage, and is used to reduce provincial tax. See the applicable provincial alternative minimum tax calculation options for more information.

**imuiydep: Number of dependents under 7 for family supplement (EI only)**

When UIEIFSFLG is set to 1 and UIEIFSOPT is set to 2, this variable represents the number of children under the age of seven in the nuclear family.

This variable is valid only if UIEIOPT is set to 2 and UIEIFSOPT is set to 2.

**\*ubp5: Week # of last other type of ui/ei payment**

ubp5 is a number identifying the week of the last other benefit payments to a modeled claim. Other types of benefits will include everything not included in regular, sickness, maternity, parental, or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing benefits, and self-employed assistance.

**\*ubp5c: Week # of last other type of ui/ei payment (windowed)**

ubp5c is a number identifying the week of the last other benefit type payment to a modeled claim within the calendar year. Other types of benefits will include everything not included in regular, sickness, maternity, parental, or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing benefits, and self-employed assistance.

**ubp6: Week # of last training payment**

ubp6 is a number identifying the week of the last training payment to a modeled claim.

**ubp6c: Week # of last training payment (windowed)**

ubp6c is a number identifying the week of the last training payment to a modeled claim within the calendar year.

**\*ucbtyp: Claim type**

Benefit type at the time the claim was established.

When using this variable for classification purposes in the model, it is important to note that there are some subtleties regarding claim type. For example, people who received weeks of maternity benefits may also receive parental benefits (according to ucgotpa). Since it is only one claim which began with the type maternity, all the dollars will be assigned to ucbtyp = maternity. People may also receive training benefits in addition to other types of benefit.

When UIEIMTYPFLG is turned on, the claim type modelled is the claim type used in ucmtyp, which is the type of claim representing the most weeks in the claim as opposed to the type of claim which was first established.

In the model, when a person is known to have received regular benefits in addition to sickness, maternity, or parental benefits (uctpng), then a regular claim is modelled. This is true even when UIEIMTYPFLG is turned on.

Training benefits include various training benefits both under the UI and EI system.

Other types of benefits will include everything not included in regular, sickness, maternity, parental, or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing benefits, and self-employed assistance.

Source:

EIC Administrative Data.

**ucdivwk: Minimum divisor weeks**

This variable represents the maximum of the weeks worked in the past 26 weeks and the minimum divisor of the base year. It is used to model the minimum divisor rule. When UIEIDIVFLG is turned on, the EI minimum divisor rule is applied. This means that weekly earnings ubern are adjusted by multiplying them by the ratio of weeks worked in the past 26 weeks, ucdivwk, over the maximum of the weeks worked over the past 26 weeks and the minimum divisor, UIEIDIV, which varies according to the local unemployment rate.

Note that since ucdivwk has been imputed in such a way that it is already the maximum of the weeks worked in the past 26 weeks and the minimum divisor of the base year, there should be little or no change when this flag is turned on if the value of UIEIDIV is the same as the base year. Furthermore, since the value of ucdivwk is already at the maximum, changing UIEIDIV to make the program more generous will not have an impact without first modifying the database. See the section on the Reference Value Facility in the User's GuideUD\_1 for more information on how to modify the database.

This parameter applies only if UIEIOPT is set to 2 (December 1995 reform implemented in 1997)

**uchrkw: Hours worked prior to claim**

The number of insured hours worked in the 52 weeks prior to the establishment of a claim.

Source:

EIC Administrative Data.

**\*ucmtyp: Main Claim type (majority of weeks)**

**Claims** may cover more than one type of benefit. The variable ucbtyp is the type of claim which was first claimed. The variable ucmtyp is the type of claim for which the most weeks were claimed.

Training benefits include various training benefits both under the UI and EI system.

Other types of benefits will include everything not included in regular, sickness, maternity, parental, fishing or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing

benefits, and self-employed assistance.

When UIEIMTYPFLG is turned on, instead of calculating the benefit eligibility and amount using the original claim type (ucbtyp), the main type of claim is used (ucmtyp). Note that when a claim starts with sickness, maternity, or parental benefits and also includes regular benefits (uctpcng), a regular claim is modelled.

Source:

EIC Administrative Data.

**ucnere: New entrant re-entrant flag**

This flag indicates whether a person is a new entrant or re-entrant. When UIEINEREFGL is turned on, the number of hours needed for new entrants and re-entrants to qualify for EI is UINEREHRMIN.

Source:

EIC Administrative Data.

**ucothbr: Other benefits weekly rate**

This variable gives the weekly payment rate which, if applied to the number of weeks of other benefits (ucothwk), would produce the payment made to the individual for other benefits. Other benefit types include all benefit types not included in the following list: regular, sickness, maternity, parental, fishing, or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing benefits, and self-employed assistance.

Source:

EIC Administrative Data.

**ucothwk: Weeks of other benefits**

This variable gives the number of weeks spent in other types of benefits during the claim. Other benefit types include all benefit types not included in the following list: regular, sickness, maternity, parental, fishing, or training. The list of other benefits included will vary depending on the year of the program. But they may include such items as job creation benefits, work sharing benefits, and self-employed assistance.

Source:

EIC Administrative Data.



## Deleted Variables

### Pre-1988 Deleted Variables

The following variables were removed since they belonged to programs that existed prior to 1988. The majority of these variables relate to the calculation of personal exemptions that were deducted from net income both federally and in Quebec.

- \*imaxm: Age personal exemption**
- \*imcdeds: Dependent children deductions**
- \*imdedea: Employment allowance**
- \*imdedt: Deductions transferred from spouse**
- \*imdisex: Disability exemption**
- \*imeduc: Education allowance for student (322)**
- \*imexm: Personal exemptions (Basic+Age)**
- \*imftr: Federal tax reduction**
- \*imftrt: Federal tax reduction transferred from spouse**
- \*imintdn: Interest income deduction allowed**
- \*immarex: Married exemption claimed**
- \*impendn: Pension income deduction allowed**
- \*impex: All personal exemptions and deductions**
- \*imqaarc: Quebec Availability Allowance Refunded Tax Credit**
- \*imqaxm: Quebec age personal exemption**
- \*imqcdeds: Quebec dependent children deduction**
- \*imqdedt: Quebec deductions transferred from spouse**
- \*imqdisex: Quebec disability exemption**
- \*imqexm: Quebec personal exemptions (Basic+Age)**
- \*imqintdn: Quebec interest income deduction allowed**
- \*imqmarex: Quebec married exemption claimed**
- \*imqpendn: Quebec pension income deduction allowed**
- \*imqpex: Quebec personal exemptions and deductions**
- \*imqrepay: Quebec repayments**
- \*imqstddn: Quebec stand. /medical+charitable allowed**
- \*imstddn: Standard or medical+charitable allowed**

### Other Deleted Variables

- \*fxhmkt: Market value of home**

This variable is not available on the Survey of Household Spending.

**\*fxhmort: Mortgage value outstanding**

This variable is not available on the Survey of Household Spending.

**\*fxintpl: Interest on personal loans**

This variable is not available on the Survey of Household Spending.

**\*fxmorti: Mortgage interest paid**

This variable is not available on the Survey of Household Spending.

**\*hdbdrms: Number of bedrooms**

This variable is no longer available on the database.

**\*hdroom: Number of rooms**

This variable is no longer available on the database.

**\*idhosslf: HOSP contributions - self (598)**

There were not enough records on the database in order to impute the amount contributed by an individual to a home ownership savings plan.

**\*idhospo: HOSP contributions - spouse (599)**

There were not enough records on the database in order to impute the amount contributed by a spouse to a home ownership savings plan.

**\*idvencap: Venture capital tax credit (564)**

There were not enough records on the database in order to impute the venture capital tax credit.

**\*imisbspa: Federal Seniors Benefit SPA**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imisenb: Federal Seniors Benefit**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imphotc: Provincial HOSP tax credits**

There were not enough records on the database in order to impute the amount contributed by an individual to a home ownership savings plan.

**\*imsbinc: Individual income reducing Seniors Benefit**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imsbmax: Federal Seniors Benefit maximum benefit**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imsbni: Consumable income with Seniors Benefit not zeroed**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imsboas: Federal Seniors Benefit OAS portion**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imsbtyp: Type of Seniors Benefit entitlement**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imsbz: Is Seniors Benefit Zeroed?**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imsbzi: Consumable income with Seniors benefit zeroed**

The Federal Seniors Benefit program announced in the 1996 Federal Budget was never implemented. It will no longer be modeled.

**\*imuiydeps: Number of dependents under 7 for family supplement (EI only)**

This variable was renamed to imuiydep.

**\*ucquitp: Penalty for voluntary quit**

This variable no longer exists on the 1997 database. Since 1993, voluntary quits are not eligible for benefits.

**\*ucwchr: Weekly hours of work**

This variable is no longer needed since the actual number of hours worked in the qualifying period is now available on the database (uchrkw).

# Growth and Validation Guide

## Database

Database is built on 1997 data.

A new matching procedure was used for SCF and FAMEX/SHS based on multivariate analysis. The objective was to create classes of household types with more similar consumption patterns.

In the production of the database, the original SCF weights are modified to represent the Canadian population at December 31, 1997. We also constraint the number of wages and salaries earners to represent the T4 distribution by province and income classes, the number of self-employed –farm and non-farm – to represent the T1 distribution by province and income classes. The household size distribution was also added as a constraint.

## Weight file updates

New demographic estimates were used for the weight files between 1996 and 1999.

New demographic projections were used to revise the weight files for 2000 up to 2005.

The weights in all years were set in a way to represent the population by province/age group/sex, the employment/population and unemployment/population ratio by province/age group and sex. Except for the household size distribution, all the margins used to reweight the original SCF were used to reweight the database in the base year. Another margin was added to keep the consistency between the number of high income earners added to the database and the final number of high income earners by province.

## Growth updates

The database growth parameters were recalculated for the 9.0 release. From 1988 to 2000, growth parameters were adjusted to reflect the growth rates in the System of National Accounts. These adjustments were done provincially. Canada and Quebec Pension Plan benefits were adjusted using data from Human Resources Development Canada and reflect growth rates by age of recipient.

For 2001 and later, the growth rates of the income parameters reflect forecasted personal income. This growth rate is national and comes from an average of private sector forecasts.

The growth methodology for expenditures has changed. The distribution of expenditures is now held constant and all expenditures are grown using GDP. For 2001 and later, the growth in GDP is national and comes from an average of private sector forecasts.

Model parameter projection, which occurs when no official estimate is available, was done using Average Industrial Wage and the Consumer Price Index.

## Online Documentation

The SPSPD/M online documentation provides quick access to the full Documentation Guides. These online guides will only work Microsoft Windows 95/98/ME or Windows NT/2000.

The installation is now done as a package within the main SPSPD/M installation. It will result in a file spsme.hlp in the main spsm folder. In order to use the help facility, navigate to the folder and run the file (e.g. using Explorer). You can navigate within the documentation in several ways: you can examine the index, use a full text search to identify which topics contain a given word or phrase or navigate using the hierarchical structure. A help file on using the online documentation is included and can be accessed from the application's help menu.

This product is similar to the standard windows help system and a full text search is supported. If you are having any problems using the online documentation please contact us at (613) 951-3774.

## Database Creation Guide

The database is built around 1997 data. Four major adjustments are made to the database to improve consistency with published data: recalibration of the wages and salaries distribution, recalibration of the non-farm self-employed income, recalibration of the farm self-employed income and the population at December 31 adjusted for household size.

SCF wages and salaries produce total wages up to 6% higher than national account. A comparison with T4 file shows an over representation of population in the median group and an under-representation of the low wages population. The T4 file is used to recalibrate the wage distribution.

The count of population within six income classes, by province, from T4 file is used as target value in the recalibration of SCF. The population used to define those classes is all the wage earners in T4 file with income higher or equal to \$1,500. The classes correspond to 25, 50, 65 and 75% of population in T4 with wages and salaries. The last two classes depend on the province: in Newfoundland and PEI it is 95 and 100%; in Quebec and Ontario it is 99 and 100%; in all the other provinces it is 98 and 100%.

Because most of the people with self-employment income also have small amounts of wages within a year, the wage distribution reweighting worsens the distribution of farm and non-farm self-employment incomes. The solution was to calibrate the distribution of farm and non-farm self-employment income in SCF, based on T1 distribution. For non-farm self-employment income, two classes by province are used corresponding to 50% of the population with self-employment income larger or equal to \$500. Negative values were excluded because there are not enough observations in SCF to support calibration.

The same definition of income classes applies to farm self-employment income. Because there are not enough observations in Newfoundland, Prince-Edward-Island, Nova-Scotia, New-Brunswick and British-Columbia, those provinces were excluded from calibration. They count for less than 6% of all people with farm self-employment income larger than \$500.