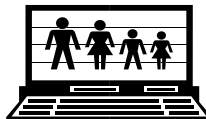


SPSD/M



Release 20.0 Update

This guide is designed to provide SPSPD/M users with new information relating to the release of Version 20.0 algorithms and software.



Statistics
Canada

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Canada

Canada

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 possible 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 19.0 release. This current release is called version 20.0 and users will note that the chapter headings in this Addendum correspond to guides in the manuals.

This version of the SPSD/M is fully compatible with Windows XP/2000. Microsoft Vista and Windows 7 users will be able to use the SPSD/M once they download a file from the Microsoft website which will allow them to view the help system. See <http://go.microsoft.com/fwlink/?LinkID=82148>. Users of older operating systems should contact Statistics Canada at (613) 951-3774 to find out if an unsupported version can be used with their operating system.

Users experiencing difficulties updating their black-box or glass-box applications to version 20.0 should contact Statistics Canada at (613) 951-3774.

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 19.0 and 20.0. This Addendum is intended to be used in conjunction with the other SPSD/M Guides included as part of the 20.0 release. The information in this Addendum supersedes the information in the documentation released with version 19.0.

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

The most recent economic growth projections from the Parliamentary Budget Office are incorporated.

The database is now based on the 2008 Survey of Labour and Income Dynamics (SLID).

Parameter and weight files are now provided to 2017.

TAX/TRANSFER ALGORITHMS AND PARAMETERS

Changes resulting from the 2012-13 budgets have been incorporated.

Changes resulting from the 2011 tax forms have been incorporated.

Parameter files updated through 2011 tax forms.

LEGISLATIVE CHANGES MODELED

The changes in tax transfer legislation that have been incorporated into the SPSD/M 20.0 are detailed in this section.

Provincial Changes

Nova Scotia

The Nova Scotia Child Benefit amounts have been updated as per budget announcements.

The married, equivalent to married and disability tax credit amounts have been updated as per budget announcements.

Ontario

The Ontario Child Benefit amounts have been updated as per budget announcements.

The Deficit Fighting High Income Tax Bracket has been implemented for taxable incomes of \$500,000 or more.

Manitoba

The Dividend Tax Credit rate on eligible dividends has been updated as per budget announcements.

Saskatchewan

The Saskatchewan Seniors Income Plan benefit amounts were updated as per budget announcements.

Alberta

The Alberta Family Employment Tax Credit maximum amounts per child were updated as per budget announcements.

British Columbia

The British Columbia Fitness tax credit has been implemented.

The Medical Services Plan premium amounts have been updated as per budget announcements.

The Sales Tax Credit has been reinstated for 2013 and the Low-Income HST credit has been phased out.

Changes not modeled

The proposed HST Rebate for low income families in Prince Edward Island did not get implemented as details for this program were not available in time for this version of the

release.

COMTAX

Federal

Additions were made to the list of GST/HST zero-rated medical and assistive devices and to the list of expenses an individual may claim under the Medical Expense Tax Credit.

Pharmacists' professional services are exempt from the GST/HST (other than prescription drug dispensing services which are already GST/HST exempt).

Prince Edward Island

The harmonization of the Prince Edward Island sales tax has been implemented.

Nova Scotia

In 2014, the provincial portion of the HST is reduced from 10% to 9%.

In 2015, the provincial portion of the HST is further reduced from 9% to 8%.

Manitoba

There was an increase in the tobacco tax rate per cigarette from 22.5¢ to 25¢; the rate on fine-cut tobacco from 21.5¢ to 24¢ per gram; and the rate on raw leaf tobacco from 20¢ to 22.5¢ per gram.

There was an increase in fuel taxes by 2.5¢ per litre on unmarked gasoline and diesel fuel. The fuel tax rate on marked fuel will be 3¢ per litre.

Effective July 2012, PST will be applied to prescribed insurance premiums under a contract of insurance.

Effective July 2012, PST will be applied to personal care services such as hair services, spa treatments and nail services.

Saskatchewan

The PST exemption on clothing and footwear for children now includes children up to age 18.

British Columbia

The HST was eliminated in British Columbia and the Provincial Sales Tax has been re-implemented as of April 1, 2013.

The jet fuel tax exemption was expanded to include all international passenger and cargo flights.

With the elimination of the HST, the tax on propane used in motor vehicles has been re-implemented at a tax rate of 2.7¢ per litre.

The provincial portion of the HST on tobacco products has been eliminated

The PST rate of 10% on liquor has been reinstated.

How to Run the SPSM guide

Please see the Visual SPSM Release Notes found under the Help menu for information on enhancements that have been made and problems that may be encountered in the current version of the Visual SPSM interface.

The Visual SPSM interface is unchanged from SPSD/M Version 19.0.

User's guide

There were no changes in this release.

Tool User's guide

There were no changes in this release.

Programmer's Guide

The version of C++ which is needed to create a glass box executable is Visual Studio.net 2008. Users can compile glass box executables using the Express, Pro or Developer's version of Visual Studio.net 2008.

Please **call** the SPSM hotline at (613) 951-3774 if you have any questions about using SPSM in glass-box mode.

Commodity Tax User's Guide

There were no changes in this release.

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.)

OVERVIEW OF ALGORITHM CHANGES

Federal

Separate parameters have been set up for contributions to CPP and QPP as their contribution rates no longer coincide with each other.

Provincial

The Saskatchewan Seniors Income Plan now includes a new parameter for benefit reduction rate for married pensioners which is now different than that for single pensioners.

The GIS exemption for the Quebec Health Contribution has been implemented.

Changes to the Manitoba Education Property Tax Credit income test were implemented.

The British Columbia Fitness tax credit has been implemented.

CHANGES BY FUNCTION

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

A new parameter (SASKRR4) was added to the Saskatchewan Seniors Income Plan to accommodate the changes in the reduction rate for married pensioners. Previously one reduction rate was used for single and married pensioners, however, beginning in 2012, there are now separate rates used for single and married pensioners. The parameter SASKRR1 is now only applied to single pensioners.

txbc **Compute provincial taxes for British Columbia**

The British Columbia Fitness tax credit has been implemented.

New parameters were added to the B.C. HST Low Income Tax Credit to accommodate the phasing out of this credit, with the last payment to be made in January 2013. When GSTCYFLG is set to 0, the phase out parameter CHSTPO is used. If GSTCYFLG is set to 1 for calendar year calculations, CHSTPO1P handles the phase out for the first half of the year and CHSTPO2P handles the phase out of the credit calculations for the second half of the year.

txcalc **Calculate federal income tax**

The federal fitness tax credit (imfitexp) has been added to the block of non-refundable tax credits in the calculation of alternative minimum tax.

txinet **Compute net income**

New parameters were added to the Quebec Pension Plan (QPP) contribution calculations since they now have separate rates than the Canada Pension Plan (CPP).

txman **Compute provincial taxes for Manitoba**

A new parameter was added to the calculation of the Manitoba education property tax credit so reflect changes to that credit based on 2011 tax forms. When MPINCRED is activated,

all applicants may undergo a credit reduction based on net income. Beginning in 2011, MPINCRED is not activated, thus only those applicants over the age of 65 may undergo a credit reduction based on net income.

txqcalc Calculate income tax (Quebec)

New parameters were added to the Quebec Health Contribution calculation to accommodate the introduction of an exemption to GIS recipients. Starting in 2011, QHCGISFLG is activated to allow GIS recipients with at least 94% (parameter QHCGISPCT) of the maximum allowable GIS without additional top-ups to be exempt from paying the Quebec Health Contribution.

txqinet Compute net income (Quebec)

New parameters were added to the Quebec Pension Plan (QPP) contribution calculations since they now have separate rates than the Canada Pension Plan (CPP).

ui Compute UI/EI benefits

Some minor bugs were fixed in the calculation of the Quebec Parental Insurance Plan (QPIP) benefit amount.

Parameter Guide

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

CONTROL PARAMETERS

There were no parameters added or modified since the last release.

Deleted Parameters

***LICOOPT T4 LICO definition 1=BeforeTax 2=AfterTax**

This parameter is no longer used since Built-in tables 4 and 4A have been replaced by tables representing the base results by province.

***PVRAT Family poverty ratio fractions for table 4 [array]**

This parameter is no longer used since Built-in tables 4 and 4A have been replaced by tables representing the base results by province.

ADJUSTMENT PARAMETERS

There were no parameters added, modified or deleted since the last release.

TAX/TRANSFER PARAMETERS

There were no parameters deleted since the last release.

Modified Parameters

SASKRR1: Saskatchewan GIS supplement reduction rate: single

In the calculation of the Saskatchewan Seniors Income Plan benefit, this reduction rate is applied to single pensioners only. The reduction rate for married pensioners is now set in SASKRR4.

SECF: CPP contribution rate on self-employment earnings

In the calculation of CPP contributions on self-employment earnings, this rate is applied to idise.

WSCF: CPP contribution rate on employment earnings

In the calculation of CPP contributions, this is the rate applied to earnings from employment.

New Parameters

CFITEXPFLG: B.C. Fitness Tax Credit activation flag

This flag activates the non-refundable B.C. Fitness Tax Credit (impfitexp). Parents with an amount in idfitexp are granted this amount (times CPNTCR) provided the maximum amount per child under 17 is maintained (CFITEXPMAX).

CFITEXPMAX: B.C. Fitness Tax Credit maximum claim

When CFITEXPFLG is activated, this amount represents the maximum amount per child under 17 that may be claimed for the non-refundable B.C. Fitness Tax Credit (impfitexp).

CHSTPO: B.C. HST Low Income Tax Credit Phase Out Rate

When the parameter CHSTCFLG is set to one, the value of this parameter is multiplied to the calculated amount of the B.C. HST Low Income Tax Credit (imbchstc) when GSTCYFLG is set to 0. The parameter was designed to simulate the partial year benefits due to the phasing out of the program with the last quarterly payment being made in January 2013.

When GSTCYFLG is activated, the July to June programs are calculated on a calendar year basis. This parameter is used to replicate the July to June program for the second half of the year, using the program design from July. The annual benefit will be equal to half the value calculated for the first half of the year and half the value calculated using the current year's parameters, representing the second half of the year. When the flag is turned off, the benefit programs are based on the program values set for July of that year and this parameter will be used since it represents the program design for July.

CHSTPO1P: B.C. HST Low Income Tax Credit Phase Out Rate for 1st half of the year

When the parameter CHSTCFLG is set to one, the value of this parameter is multiplied to the calculated amount of the B.C. HST Low Income Tax Credit (imbchstc) for the first half of the year when GSTCYFLG is set to 1. The parameter was designed to simulate the partial year benefits due to the phasing out of the program with the last quarterly payment being

made in January 2013.

When GSTCYFLG is activated, the July to June programs are calculated on a calendar year basis. This parameter is used to replicate the July to June program for the first half of the year, using the program design from the previous year. The annual benefit will be equal to half the value calculated for the first half of the year and half the value calculated using the current year's parameters, representing the second half of the year. When the GSTCYFLG is turned off, this parameter is not used as it represents the value for the previous year.

CHSTPO2P: B.C. HST Low Income Tax Credit Phase Out Rate for 2nd half of the year

When the parameter CHSTCFLG is set to one, the value of this parameter is multiplied to the calculated amount of the B.C. HST Low Income Tax Credit (imbchste) for the second half of the year when GSTCYFLG is set to 1. The parameter was designed to simulate the partial year benefits due to the phasing out of the program with the last quarterly payment being made in January 2013.

When GSTCYFLG is activated, the July to June programs are calculated on a calendar year basis. This parameter is used to replicate the July to June program for the first half of the year, using the program design from the previous year. The annual benefit will be equal to half the value calculated for the first half of the year and half the value calculated using the current year's parameters, representing the second half of the year. When the GSTCYFLG is turned off, this parameter is not used as it represents the value for the previous year.

MPINCREC: Manitoba Property Tax Credit Income Reduction Flag for under 65

This flag parameter activates the reduction (based on family net income) of the Manitoba Property Tax Credit. This represents a change in the tax credit calculation beginning in 2011. When this flag is activated, all applicants undergo a credit reduction calculation based on MPFINCRR of family income. When this flag is not activated, applicants under the age of 65 will no longer undergo the credit reduction based on income.

QHCGISFLG: Quebec health contribution GIS exemption activation flag

When this parameter is set to 1 (activated), GIS recipients with a calculated value of GIS (before top-ups) that is at least QHCGISPCT of the maximum value of GIS, do not have to pay the Quebec Health Contribution. When this parameter is set to 0 (not activated), GIS recipients will have to pay the calculated contribution.

QHCGISPCT: Quebec health contribution GIS exemption percentage

When QHCGISFLG is set to 1 (activated), GIS recipients with a calculated value of GIS (before top-ups) that is at least this percentage of the maximum value of GIS, do not have to pay the Quebec Health Contribution.

QPPSECF: QPP contribution rate on self-employment earnings

In the calculation of QPP contributions on self-employment earnings, this rate is applied to idise.

QPPWSCF: QPP contribution rate on employment earnings

In the calculation of QPP contributions, this is the rate applied to earnings from employment.

SASKRR4: Saskatchewan GIS supplement reduction rate: married

Saskatchewan Income Plan reduction rate for married pensioners who are both eligible. This rate is expressed as a proportion of the actual GIS dollar reduction.

Variable Guide

There were no variables added or deleted since the last release.

Variables whose interpretations have changed, are also described and are identified in this section by a preceding asterisk.

MODIFIED VARIABLES

***impfitexp: Provincial Fitness Tax Credit**

This variable now includes the British Columbia Fitness Tax Credit.

Growth and Validation Guide

GROWTH UPDATES

The most recent economic growth projections from the Parliamentary Budget Office are incorporated.

Parameter and weight files are now provided to 2017.

Weight files were updated to reflect new estimates and projections.

Online Documentation

The SPSD/M online documentation provides quick access to the full Documentation Guides. These online guides will only work with Windows 2000/XP. Vista and Windows 7 users will be able to use the SPSD/M once they download a file from the Microsoft website which will allow them to view the help system. See <http://go.microsoft.com/fwlink/?LinkID=82148>. The documentation can be found in the SPSM menu under Start, Programs.

If you are having any problems using the online documentation please contact us at (613) 951-3774.