

**MPHEC METHODOLOGY TO CALCULATE USIS-LIKE DECEMBER 1ST AND
FULL-YEAR ENROLMENT,
REGISTRATION STATUS, FULL-TIME EQUIVALENT (FTE),
AND WEIGHTED FULL-TIME EQUIVALENT (WFTE) FROM ENHANCED
STUDENT INFORMATION SYSTEM (ESIS) DATA**

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I. BACKGROUND

Until 1998,¹ Maritime institutions under the Commission's mandate reported, on or before January 15th, a December 1st snapshot of registration status (full-time or part-time) and full-time equivalent (FTE) for all students in the University Student Information System (USIS). These December 1st enrolment reports were used primarily for statistical purposes.

Institutions were also required to submit, on or before March 15th, an aggregate data set of part-time enrolment and FTE values of part-time enrolment in inter-session, summer, and winter as well as full-time winter and summer co-op student activity in the year. This supplementary information was used to calculate the full-year FTE and weighted FTE (WFTE). The *full-year* FTE and WFTE values are used by the MPHEC primarily for the application of the Regional Transfer Arrangement and the allocation of funding under the New Brunswick funding formula.

The definition of a full-year FTE and WFTE was agreed to in the early 1980s, and includes full-time and part-time students of the fall semester (September 1st to December 31st) as provided by the institutions in the USIS December 1st enrolment reports, part-time in inter-session (May 1st to June 30th), summer (July 1st to August 31st) and winter semesters (January 1st to April 30th), and full-time co-op students' activity over the three semesters divided by two. This definition of full-year enrolment was intended to represent, as accurately as possible and within the constraints presented by USIS, student activity throughout the academic year (fall and winter semesters) and during the spring/summer **months**.

The MPHEC in conjunction with Statistics Canada and other stakeholders designed, developed and implemented The Enhanced Student Information System (**ESIS**) to replace USIS. The Commission requires two ESIS submissions: the Preliminary (due January 15th) which is used to calculate a USIS-like December 1st enrolment report and the Final (due July 15th), which includes student activity for every semester in the year. The final submission includes all the information required to calculate the full-year FTE and WFTE needed for the Regional Transfer Arrangement and the New Brunswick funding formula. The Final submission is submitted to Statistics Canada.

Maritime institutions are not required to provide a student's registration status^a and FTE, nor do they need to provide an aggregate data set of part-time FTE and full-time co-op student activity. ESIS has enabled the MPHEC to calculate full-year enrolment figures, weighted for the Regional Transfer Arrangement and the New Brunswick funding formula, using its long-established rules and policies. The key benefit in this change is that the new data collection system has presented the opportunity to apply systematically the same rules and policies across the board, as well as to audit the quality and the accuracy of the data reported, thereby increasing the comparability of the outputs across Maritime institutions.

ESIS allows the Commission to collect detailed information on programme and course student activities and calculate a full-year enrolment without multiple submissions (USIS and aggregated data set). While the USIS definition for the current calculation of the full year enrolments is applied as closely as possible ESIS data,

^a In October 2002, Statistics Canada announced an amendment to the ESIS element SP5085 - Grad student registration status on December 1st. The element will be called student registration status, and the institutions are responsible (effective 2002/2003 final submission) to code all student as full-time, part-time or not applicable (not registered on this date) as of December 1st. The Commission will continue to use the SP5085 element to only obtain graduate student status for its December enrolment calculations.

the Commission has taken advantage of the detailed course activity by prorating not only the part-time course activities that occurs in the inter-session, summer and winter terms (which was historically done) but also in the fall term.

The methodology described herein is used by the MPHEC to calculate USIS-like FTE values and USIS-like WFTE values using ESIS data. In applying its full year methodology to the ESIS data, the Commission's main objective is to ensure comparability with the outputs generated in the past through USIS which were and are used for the application of the Regional Transfer Arrangement and the allocation of funding under the New Brunswick funding formula.

Section II presents the definitions of key concepts related to enrolment calculations. Section III describes the methodology used to calculate USIS-like December 1st enrolment and FTE values for statistical purposes, while Section IV describes the methodology used to calculate full-year enrolment, FTE and WFTE values, used for the Regional Transfer Arrangement and the New Brunswick funding formula.

II. DEFINITIONS AND KEY CONCEPTS

Enrolment:² Undergraduate and graduate students registered full-time or part-time at an institution who are actively participating in courses eligible for academic credit in a degree, diploma or certificate programme; or who are not seeking an academic degree, diploma or certificate but are placing demands on the institution. A graduate student enrolled in a programme of studies and not actively participating in courses can make substantial demands upon the resources of an institution while engaging in research or writing a thesis under continuing supervision.

Full-time Undergraduate Student:³ A person who is enrolled in courses which are normally recognized by the institution as acceptable credits toward an approved degree, certificate or diploma programme, or who is not seeking an academic degree, diploma or certificate but is placing demands on the institution. A full-time undergraduate student is a person enrolled in a programme of studies who is taking at least 60% of the normal course work associated with a programme year.

Full-time Graduate Student:⁴ A person who is enrolled in a programme of study who make substantial demands upon the resources of an institution such as enrolling in courses and/or engaging in research or writing a thesis under continuing supervision. A full-time graduate student pays the full-time tuition fees. The graduate student will normally:

- ▶ Be geographically available to the University, visit the campus regularly,
- ▶ Not be engaged in regular employment, on or off campus, for more than 10 hours per week during the year, and
- ▶ Pursue their studies as a full-time occupation

Part-time Undergraduate Student:⁵ A person who is enrolled part-time in courses which are normally recognized by the institution as an acceptable credit toward an approved degree, certificate or diploma programme; or who is not seeking an academic degree, diploma or certificate but is placing demands on the institution. Part-time undergraduate students are counted each semester. Counting is based on course registration with each full course being the equivalent of 1/5 of a full-time student. Credit courses provided through summer schools, inter-sessions, evening classes, and extension activities as well as courses during regular course scheduling are eligible for consideration in this category. The part-time undergraduate student within an academic year (defined as fall and winter session) is defined as a person taking less than 60% of the normal course work associated with a programme year.

Part-time Graduate Student:⁶ A person who is enrolled part-time at an institution in an approved graduate degree, certificate or diploma programme. Part-time graduate students fall into two main categories:

- ▶ Students who have completed their required course work, and who are writing their thesis; and
- ▶ Students who have not completed their course work and are presently taking courses and/or working on their thesis.

Part-time graduate students may be counted only once during the year (defined as May 1st to April 30th).

III. METHODOLOGY TO CALCULATE USIS-LIKE DECEMBER 1ST ENROLMENTS AND FTE VALUES FOR STATISTICAL PURPOSES

1. Registration Status and FTE value (undergraduate students)

1.1 The registration status (full-time or part-time) of a student enrolled in an undergraduate programme is calculated using the following:

- a. The total number of credits needed to graduate in the student's programme divided by programme duration expressed in semesters for that specific programme, which equals the total expected credits per semester times 60%, which equals the credits (recorded in two decimal places) required per semester to be considered a full-time student.
- b. If the total number of credits falls below 60% of the course work associated with a programme year, the student's status is defined as part-time.
- c. Courses which are audited or from which the student has withdrawn are excluded from the calculation.

1.2 The FTE value assigned to an undergraduate student enrolled in an undergraduate programme is calculated using the following:

- a. If, in the fall semester, total course credits are greater than or equal to 60% of total expected credits per semester in the specified programme, the student is considered full-time and assigned an FTE value of 1.00.
- b. If total course credits in the fall semester are less than the 60% of total expected credits per semester, then the student is considered part-time and assigned an FTE value of 0.10 for every one-semester course and of 0.20 for every two-semester course.

2. Exception to the rules as per section 1 - Students registered in courses but not enrolled in a defined programme

2.1 The registration status (full-time or part-time) of, and FTE value assigned to, an undergraduate student enrolled in courses but not in a defined programme are calculated using the following:

- a. Such a student is considered full-time if his/her course activity in the fall semester is greater than or equal to nine credits (non-programmes are assumed to require 30 credits within a programme year, 60% of which, expressed on a semester basis, is equal to nine credits; or the equivalent based on the institution's general programme credit structure) and assigned an FTE value of 1.00.
- b. If total course activity in the fall semester is less than nine credits, the student is considered part-time and assigned an FTE value of 0.10 for every one-semester course and of 0.20 for every two-semester course in which the student is enrolled.

3. Exceptions to the rules as per section 1 – co-op student activity

- 3.1 A student who is enrolled in a co-op programme and has only one course reported in the ESIS *student course file* that is an on-the-job-training course for the defined term is assigned a registration status of co-op student on a work term – no regular course activity with an FTE value of 0.00.
- 3.2 A student who is enrolled in a co-op programme and has one on-the-job-training course and other regular credit courses reported in the ESIS *student course file* for the defined term is assigned a registration status of co-op student on a work term – regular (part-time) course activity with an FTE value of 0.10 for every one-semester course and of 0.20 for every two-semester course. This student is counted as a part-time student in the fall enrolments if the course activity happened to occur between September 1st and December 1st.

4. Students registered in a graduate programme

- 4.1 The registration status (full-time or part-time) of a student registered in a graduate programme of study is reported by the institution.
- 4.2 The elements (also referred to as flags) used to code the status of graduate students are located in the ESIS *student program file*. The fall semester (fall flag activity, SP5085^b, corresponding to December 1st) is used to determine registration status and assign an FTE value to graduate students.
- If the registration status flag is reported as full-time, a graduate (Master or Doctorate) student is assigned an FTE value of 1.00.
 - If the registration status flag is reported as part-time, a Master's student is assigned an FTE value of 0.33 and a Doctoral student is assigned an FTE value of 1.00.
 - If the registration status is reported as not applicable (not registered on this date), a graduate (Master's or Doctorate) student is assigned an FTE value of 0.00.
- 4.3 To maintain the historical continuity of the USIS December enrolments, the student activity is extracted from ESIS by specifying start and end dates (the period between September 1st and December 31st).

^bIn October 2002, Statistics Canada announced an amendment to the ESIS element SP5085 - Grad student registration status on December 1st. The element will be called student registration status, and the institutions are responsible (effective 2002/2003 final submission) to code all student as full-time, part-time or not applicable (not registered on this date) as of December 1st. The Commission will continue to use the SP5085 element to only obtain graduate student status for its December enrolment calculations.

IV. METHODOLOGY TO CALCULATE FULL-YEAR ENROLMENTS, FTE AND WFTE VALUES FOR THE REGIONAL TRANSFER ARRANGEMENT AND THE NEW BRUNSWICK FUNDING FORMULA

The full-year is calculated based on student activity that has occurred between the period of May 1st and April 30th of a reporting year.

1. Registration Status and FTE value (undergraduate students):

- 1.1 The registration status (full-time or part-time) of a student enrolled in an undergraduate programme is calculated using the following:
 - a. The total number of credits needed to graduate in the student's programme divided by programme duration expressed in semesters for that specific programme, which equals the total expected credits per semester times 60%, which equals the credits (recorded in two decimal places) required per semester to be considered a full-time student.
 - b. If the total number of credits falls below 60% of the course work associated with a programme year, the student's status is defined as part-time.
 - c. Courses which are audited or from which the student has withdrawn are excluded from the calculation.
- 1.2 The FTE value assigned to an undergraduate student enrolled in an undergraduate programme is calculated using the following:
 - a. If, in the fall semester, total course credits are greater than or equal to 60% of total expected credits per semester in the specified programme, the student is considered full-time and assigned an FTE value of 1.00 for the academic year (defined as fall and winter semesters).
 - b. If total course credits in the fall semester are less than the 60% of total expected credits per semester, the student is considered part-time and assigned an FTE value prorated according to the credit structure set forth by the institution.
- 1.3 Additional parameters
 - a. The FTE value assigned to one undergraduate student cannot exceed 1.00 in one academic year (defined as fall and winter semesters).
 - b. Any undergraduate student defined as full-time in the fall retains this status for the academic year (defined as fall and winter semesters). If the student leaves the university in winter or becomes part-time, the student's fall status (that is full-time) and FTE value (1.00) is maintained in the calculation of the full-year outputs.
 - c. Conversely, a student defined as part-time in the fall, who becomes full-time in the winter retains his/her status (part-time) and prorated FTE value (based on the number of credit courses registered in the fall).

- d. A student defined as part-time in the fall and who remains part-time in winter will see her/his credit courses counted.
- e. In inter-session and summer session, every student's registration is defined as part-time and assigned an FTE value prorated according to the credit structure set forth by the institution.

2. Exception to the rules as per section 1 - Students registered in courses but not enrolled in a defined programme

- 2.1 The registration status (full-time or part-time) of, and FTE value assigned to, an undergraduate student enrolled in courses but not in a defined programme are calculated using the following:
 - a. Such a student is considered full-time if his/her course activity in the fall semester is greater than or equal to nine credits (non-programmes are assumed to require 30 credits within a programme year, 60% of which, expressed on a semester basis, is equal to nine credits; or the equivalent based on the institution's general programme credit structure) and assigned an FTE value of 1.00 for the academic year (defined as fall and winter semesters).
 - b. If total course activity is less than 9 credits, then the student is considered part-time and assigned an FTE value prorated according to the credit structure set forth by the institution for every course in which the student is enrolled in the academic year (defined as fall and winter semesters).

3. Exceptions to the rules as per section 1 – co-op student activity

- 3.1 A student who is enrolled in a co-op programme and has only one course reported in the ESIS *student course file* that is an on-the-job-training course for the defined term is assigned a registration status of co-op student on a work term – no regular course activity with an FTE value of 0.00.
- 3.2 A student who is enrolled in a co-op programme and has one on-the-job-training course and other regular credit courses reported in the ESIS *student course file* for the defined term is assigned a registration status of co-op student on a work term – regular (part-time) course activity with an FTE value prorated according to the credit structure set forth by the institution.
- 3.3 A full-time co-op student FTE values are calculated in each term (summer, fall and winter); all three terms are added and then divided by two which represents the student's full-year activity.

4. Students registered in a graduate programme

- 4.1 The registration status (full-time or part-time) of a student registered in a graduate programme of study is reported by the institution.
- 4.2 The elements (also referred to as flags) used to code the status of graduate students are located in the ESIS *student program file*. There are four flags used to determine registration status and assign an FTE value to graduate students. The four flags are:
 - *grad student registration status on June 1st* (SP5083)

- ▶ *grad student registration status on August 1st* (SP5084)
- ▶ *student registration status on December 1st* (SP5085)^c; and
- ▶ *grad student registration status on April 1st* (SP5086)

The assignment of FTE values are as follows:

- a. If the registration status flag is reported as full-time in the fall semester, a graduate (Master or Doctorate) student is assigned an FTE value of 1.00.
 - b. If the registration status flag is reported as part-time in the fall semester, a Master's student is assigned an FTE value of 0.33 and a Doctoral student is assigned an FTE value of 1.00.
 - c. Any graduate student reported as either full-time or part-time (1 FTE or 0.33 FTE) in the fall semester retains his/her FTE value for the year (defined as May 1st to April 30th).
 - d. If a graduate student is not reported in the fall semester, the ESIS flag (*student registration status on December 1st* [SP5085]) is reported as 98 (not applicable/not registered on this date), and in the winter semester his/her registration status flag (*grad student registration status on April 1st* [SP5086]) is defined as full-time or part-time, a Master's student is assigned an FTE value of 0.33 and a Doctoral student is assigned an FTE value of 1.00.
 - e. If a graduate student is not reported in fall and winter, that is both flags (*student registration status on December 1st* [SP5085] and *grad student registration status on April 1st* [SP5086]) respectively are reported as 98 (not applicable/not registered on this date), and in inter-session (*grad student registration status on June 1st* [SP5083]) and/or summer semester (*grad student registration status on August 1st* [SP5084]), the registration status flags are reported as full-time or part-time, a Master's student is assigned an FTE value 0.33 and a Doctoral student is assigned an FTE value of 1.00.
 - f. If the registration status is reported in all flags as 98 (not applicable/not registered on this date), a graduate (Master's or Doctorate) student is assigned an FTE value of 0.00.
- 4.3 Graduate students (full-time or part-time) who have exceeded the maximum FTE allowed are not eligible for funding but must be included in the ESIS submission. These students should be coded in the SP5025 - *student and programme approved for funding* element as "3" (- student is not eligible to be included in weighted enrolment figures used for grant purposes because he/she is a graduate student who has exceeded the maximum length of study allowed for funding purposes for the programme of studies in which the student is enrolled) by the institutions. The criteria for coding graduate students are as follows:

^cIn October 2002, Statistics Canada announced an amendment to the ESIS element SP5085 - Grad student registration status on December 1st. The element will be called student registration status, and the institutions are responsible (effective 2002/2003 final submission) to code all student as full-time, part-time or not applicable (not registered on this date) as of December 1st. The Commission will continue to use the SP5085 element to only obtain graduate student status for its full-year calculations.

- a. Full-time and part-time students enrolled in Master's programmes may be counted as eligible for funding for a total of two full-time equivalents (2.00 FTEs. This is the equivalent of two years (defined as May 1st to April 30th), (1.00 FTE each year) or six years of part-time study (0.33 FTE per year).
- b. Full-time and part-time students enrolled in Doctoral programmes may be counted as eligible for funding for three years (defined as May 1st to April 30th) (3.00 FTEs).
- c. Students who follow the Bachelor to PhD degree route may be counted as eligible for funding for a total of five full-time equivalents (5.00 FTEs), which is equivalent to five years (defined as May 1st to April 30th).

4.4 Additional parameter

- a. The FTE value assigned to one graduate student cannot exceed 1.00 in year (defined as May 1st to April 30th).

5. Weighting Full-time Equivalents

- 5.1 The weighted full-time equivalent (WFTE) is a calculated value intended to reflect the difference in the relative costs of various programmes of instruction.
- 5.2 The WFTE value for each full-time student is obtained by multiplying the student's FTE by the specified weighting factor assigned to their programme by a program category code reported in the ESIS element IP2030 - *program category*.
- 5.3 All part-time undergraduate students are given a weight factor of 2.0.
- 5.4 The weighting of a graduate student is calculated by the maximum number of weight units while enrolled in a programme either on a full-time or part-time basis. The maximum number of units is influenced by the programme requirements.
- 5.5 If a student is enrolled in more than one programme in one semester, then the programme with the highest weight is selected to calculate the student's WFTE.
- 5.6 The WFTE values are calculated as follows:

Full-Time Undergraduates $WFTE = FTE * Programme\ Weight$

Full-Time Graduates (except Medicine)

Master's $WFTE = FTE * (2 * Programme\ Weight) - Maximum\ weight\ of\ 12.0,$ except Engineering maximum weight of 8.0

Doctorate $WFTE = FTE * (4 * Programme\ Weight) - Maximum\ weight\ of\ 12.0$

Part-Time Undergraduates $WFTE = FTE * \text{Programme Weight of } 2.0$

Part-time Graduates Same weight as applied to full-time graduates students.

5.7 If programmes are not approved by the MPHEC or are community college based other than at the University College of Cape Breton, the programme weight equals zero.⁷

5.8 In 1984, the Commission approved the integration of the University College of Cape Breton community college programmes into the funding allocation formula such that weights of 2.5 and 3.5 were agreed upon for business technology and engineering programmes respectively.⁸ As of 1997, when the Commission's memorandum of agreement was signed, the Commission no longer reviews nor approves community college programmes.⁹ The University College of Cape Breton is responsible to assign, within the ESIS files, a weight of 2.5 (program category 13003 – Other Community College Program) to all newly implemented community college programmes and a weight of 3.5 (program category 13004 – Engineering Technology) to all newly implemented engineering field of study programmes.¹⁰

5.9 The WFTE values are used for the application of the Regional Transfer Arrangement and the allocation of funding in New Brunswick.

6. Undergraduate International Students (New Brunswick only)

6.1 Undergraduate international students are not funded by the New Brunswick funding formula (as per Cabinet Decision in 1997).

6.2 An undergraduate international student's full-year FTE and WFTE values are calculated according to the methodology described above. (Section IV)

6.3 These students are identified by the ESIS data elements on *program level* (all undergraduate levels) and on *immigration status* (international citizenship).

6.4 The WFTE values of international students are included in the full-year WFTE outputs to ensure comparability across the Maritimes. The full-year WFTE values (including international students) are used for the Regional Transfer Arrangement.

6.5 The WFTE values of international students are subtracted from the full-year WFTE outputs of the institution at which they are enrolled, when applying the New Brunswick funding formula.

(September 18, 2003)

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(Revised: January 22, 2004)

ENDNOTES

1. 1998 was the transition year during which Maritime institutions submitted data in both the USIS and ESIS formats.
2. University Student Information System. USIS Enrolment Input Manual - April 1995. Education, Culture and Tourism Division - Statistics Canada. Pg 6.
3. Policies, Procedures and Activities. Maritime Provinces Higher Education Commission. February 1986. Pg 10; Report of the AAU-MPHEC Operating Grants Committee. September 1979. Pg 8; USIS Manuals, all years.
4. Working Paper on the Weighting of Part-time Graduate Students for Operating Grant Purposes. October 1978. Report of the AAU-MPHEC Operating Grant Committee. September 1979. Pg 9.
5. Policies, Procedures and Activities. Maritime Provinces Higher Education Commission. February 1986. Pg. 10. Report of the AAU-MPHEC Operating Grants Committee. September 1979. Pg. 8.
6. Policies, Procedures and Activities. Maritime Provinces Higher Education Commission. February 1986. Pg 10. Working Paper on Weighting of Part-time Graduate Students for Operating Grant Purposes. October 1978.
7. Commission 71st Meeting. Memorandum No. 792. September 10, 1984.
8. Minutes of the 71st Meeting. Maritime Province Higher Education Commission. September 10, 1984.
9. Maritime Provinces Higher Education Commission. Annual Report 2000-2001. Pg 17.
10. Minute 192-04-B6 of the 192nd Meeting. Maritime Province Higher Education Commission. April 28, 2003