

Memorandum

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TO: Board of Governors

FROM: Christopher Manfredi, Provost and Vice-Principal (Academic)

SUBJECT: McGill University Revenue Forecasting Methodologies

DATE: February 15, 2018

DOCUMENT #: GD17-39

ACTION REQUIRED: INFORMATION APPROVAL/DECISION

ISSUE & EXPECTED OUTCOME A presentation on McGill University Revenue Forecasting Methodologies is presented to the Board of Governors for information. The presentation outlines the University's sources for operating revenue and new forecasting methodologies for estimating revenue from enrolment-based grants and tuition.

BACKGROUND & RATIONALE New methodologies for forecasting revenue have been developed by the Analysis, Planning & Budget team in order to demonstrate their robustness with a view toward modifying the way McGill books such revenue. The methodology was presented to the Financial Services leadership of the University in March 2017 and the method has since been put into effect. The Audit Committee received the presentation at its September 25, 2017 meeting.

The new method consists of booking estimates for the current fiscal year and upcoming budget year to allow for greater convergence between planning and budget, and to provide for a more accurate view of revenues available for academic initiatives. Before March 2017, the University was booking *calculs définitifs*, which are based on enrolment from two years prior, and were adjusted with Ministry estimates. This older method had proven to be highly inaccurate, with results coming only in July after the end of the fiscal year.

ALIGNMENT WITH MISSION AND STRATEGIC PRIORITIES A new forecasting methodology is consistent with the Principal's My Workplace priority to empower staff to use their knowledge to increase agility and effectiveness. It is also consistent with the mission of the Office of the Provost and Vice-Principal (Academic) to ensure alignment of the University's resources with academic priorities.

The methodology takes enrolment plans, converts these to full-time equivalent students, and turns these into estimates of anticipated revenues. The refinements in the methodology include taking into account differences between McGill's billing practice and the Ministry's funding practice. These differences impact grant and tuition calculations. The new methodology also

looks at graduate student enrolment by term, and includes reverse validation to ensure that the forecast methodology, applied to previous years, results in the previous years' actuals, or falls within an acceptable margin of error.

**COMPLIANCE
WITH
UNIVERSITY
POLICY**

Forecasting enrolment and tuition revenues is a key part of creating the annual five-year budget book, as mandated by the Board of Governors.

**COMPLIANCE
WITH
LEGISLATION/
EXTERNAL
REGULATIONS**

Forecasts must be consistent with the *Règles budgétaires et calcul des subventions de fonctionnement aux universités du Québec*. Nearly 70% of McGill's operating revenues stem from enrolment-based grants and tuition.

RISK FACTORS

Inaccurate estimates can lead to long-term commitments that are liable to putting the university's borrowing position at risk.

**SUSTAINABILITY
CONSIDERATIONS**

The new methodology has put in place a sustainable framework for forecasting revenues.

**IMPACT OF
DECISION AND
NEXT STEPS**

N/A

**MOTION OR
RESOLUTION
FOR APPROVAL**

N/A

APPENDICES

Appendix A: Presentation on Revenue Forecasting

GD17-39

McGill University Revenue Forecasting Methodologies

Presentation to the Board of Governors
February 15th, 2018

Christopher Manfredi, Provost and Vice-Principal (Academic)

Analysis, Planning, and Budget
March 16, 2017

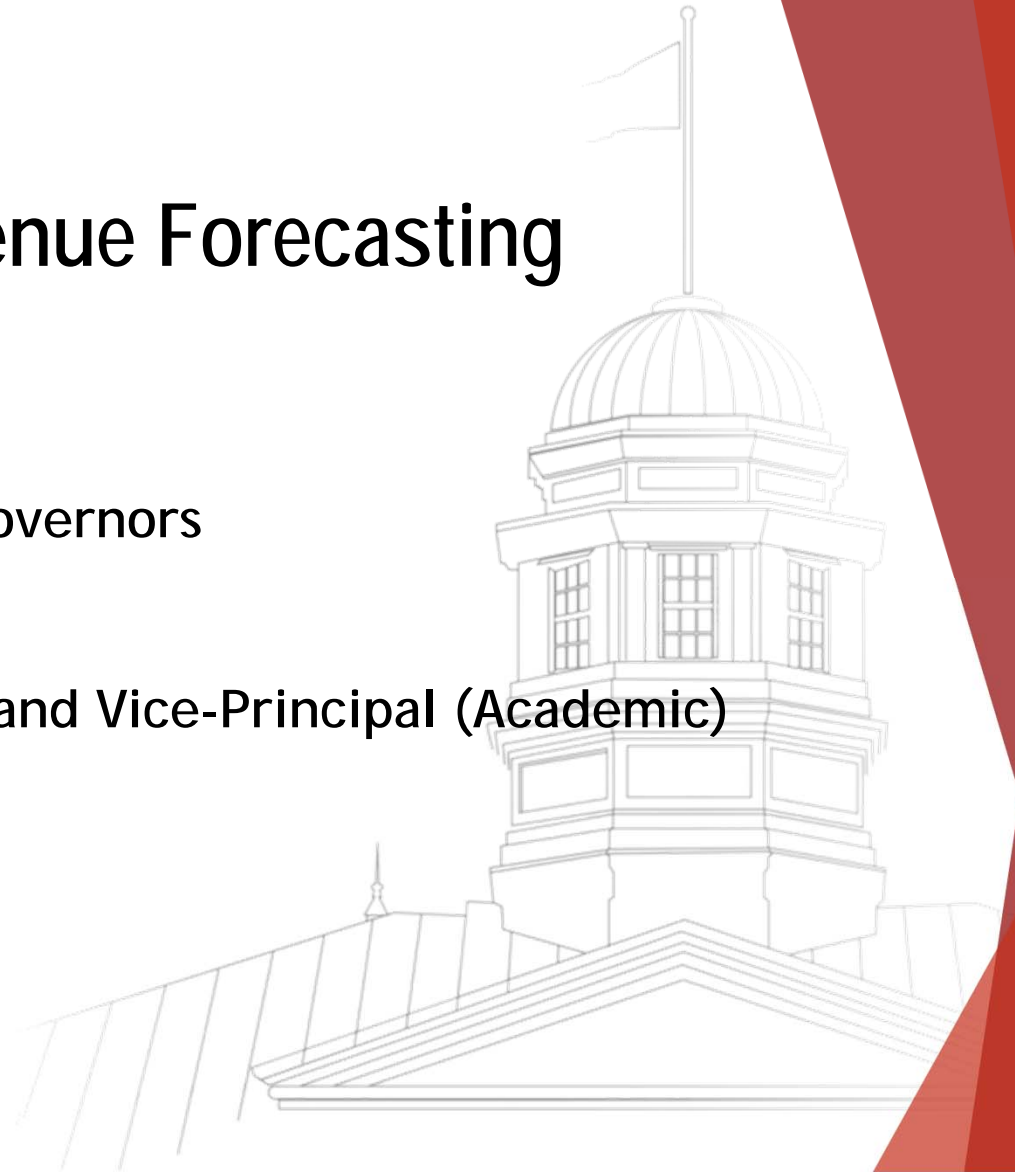


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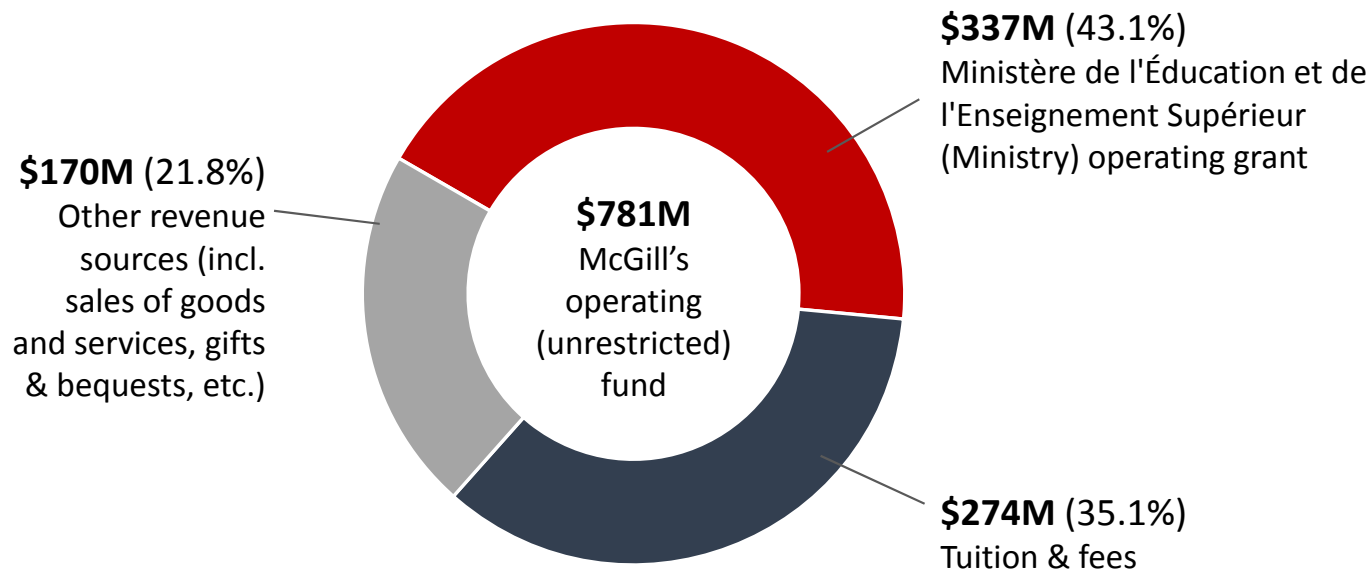
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McGill's Operating Revenue

2015-2016 Sources of Revenue¹

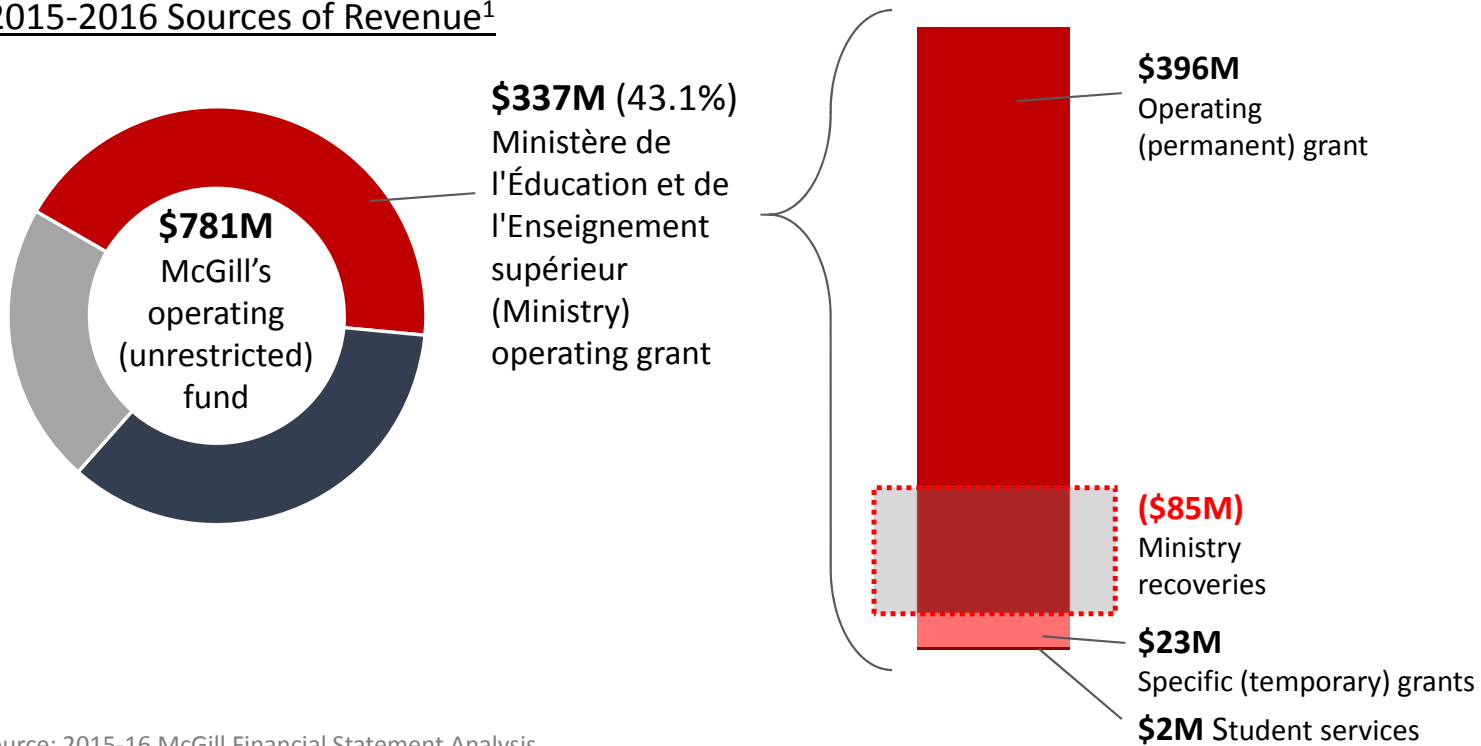


Nearly **70%** of operating revenue is driven by student full-time equivalents (FTEs)

¹Source: 2015-16 McGill Financial Statement Analysis

McGill's Operating Revenue: Ministry Operating Grant

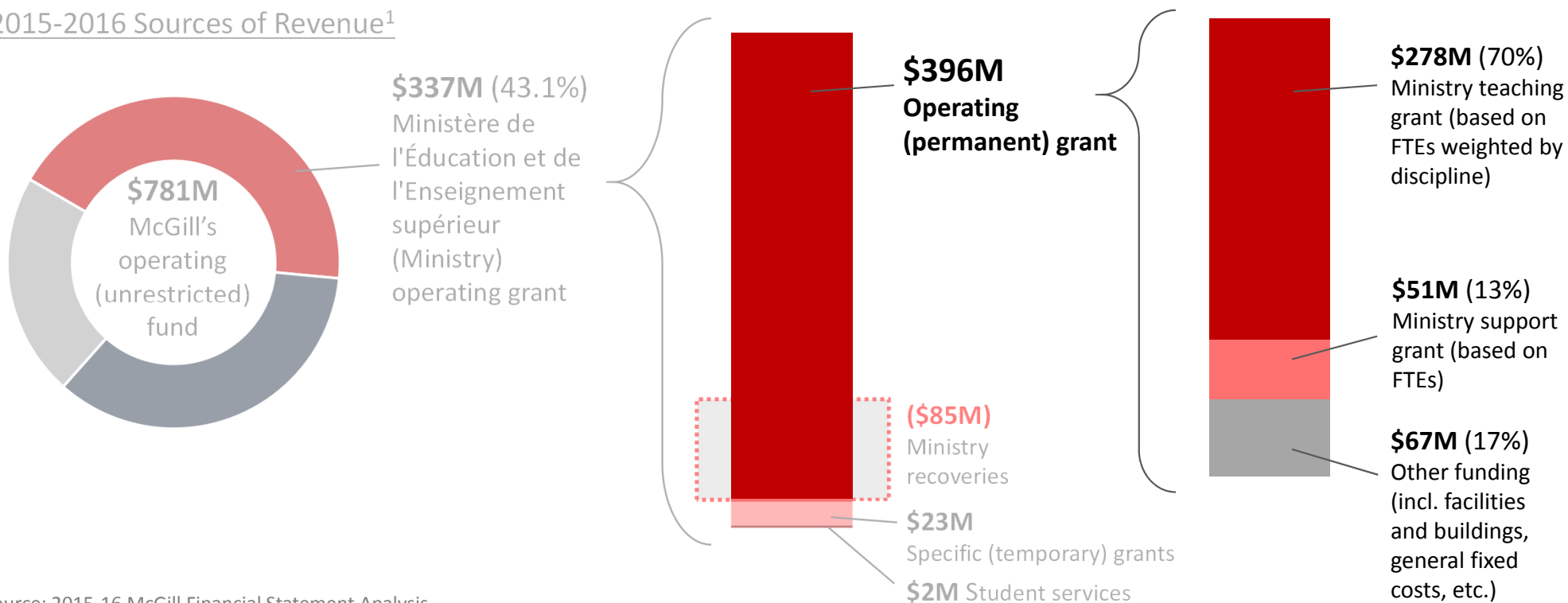
2015-2016 Sources of Revenue¹



¹Source: 2015-16 McGill Financial Statement Analysis

McGill's Operating Revenue: Ministry Operating Grant (Cont'd)

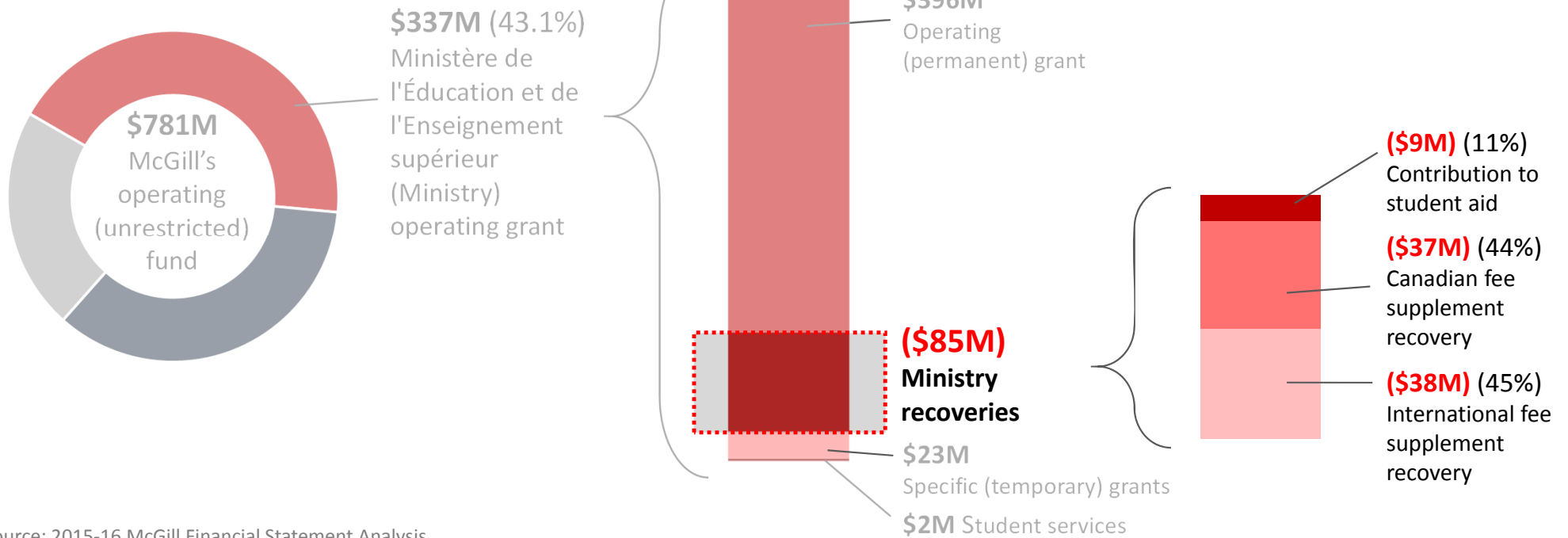
2015-2016 Sources of Revenue¹



¹Source: 2015-16 McGill Financial Statement Analysis

McGill's Operating Revenue: Ministry Operating Grant (Cont'd)

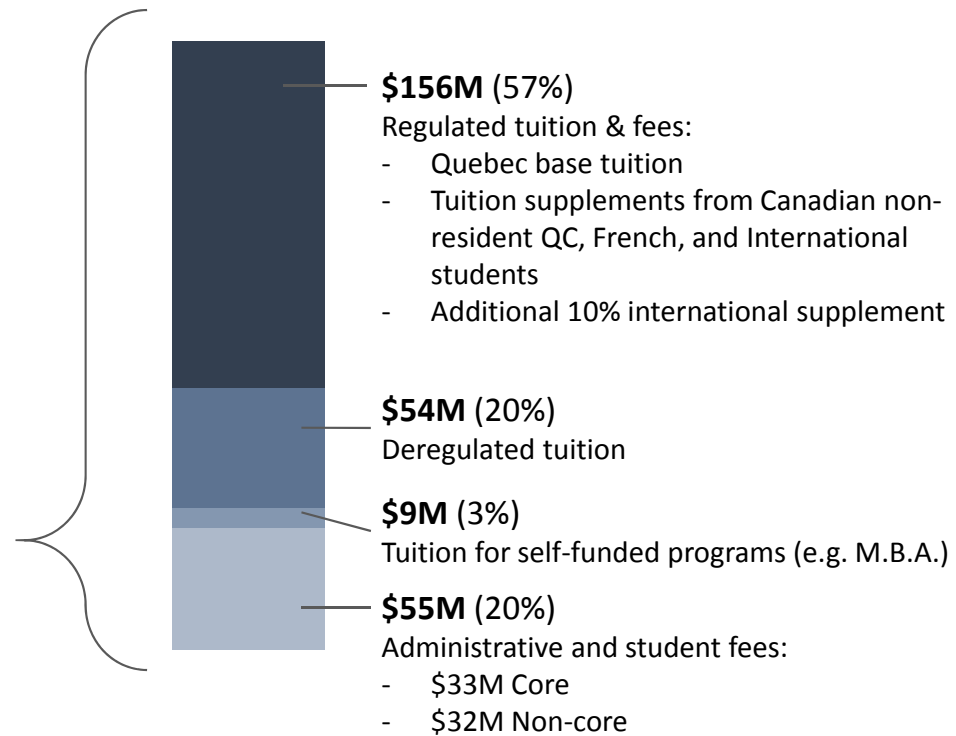
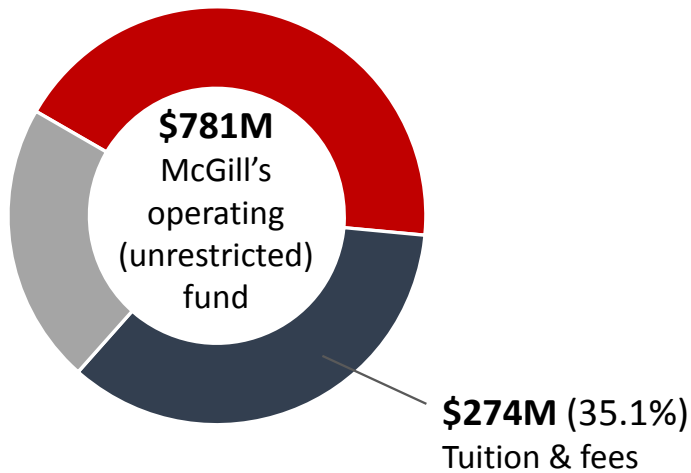
2015-2016 Sources of Revenue¹



¹Source: 2015-16 McGill Financial Statement Analysis

McGill's Operating Revenue: Tuition & Fees

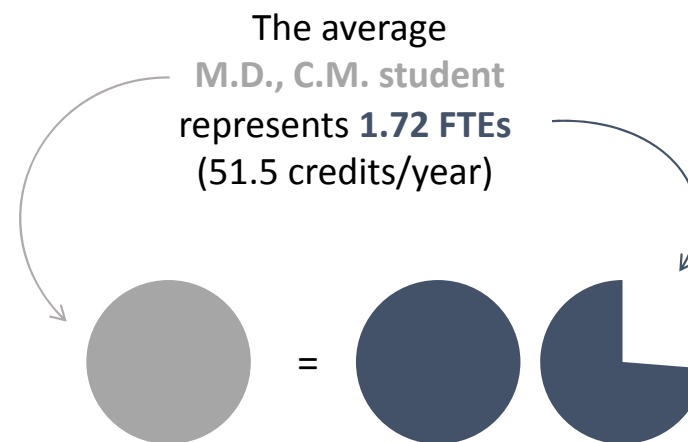
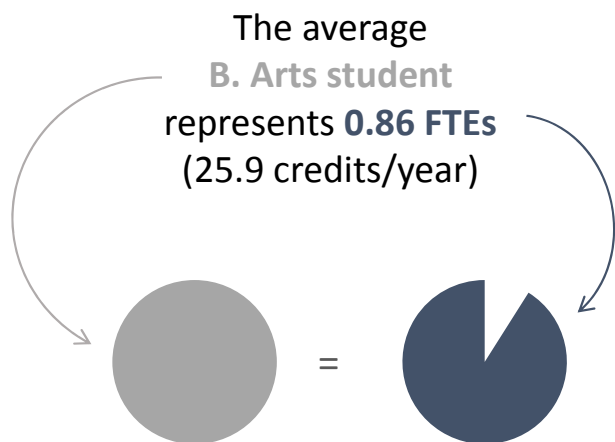
2015-2016 Sources of Revenue¹



¹Source: 2015-16 McGill Financial Statement Analysis

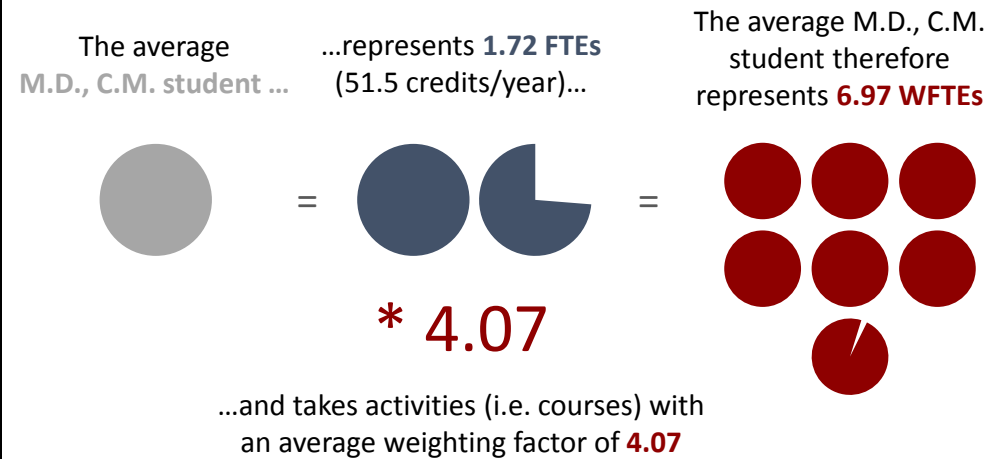
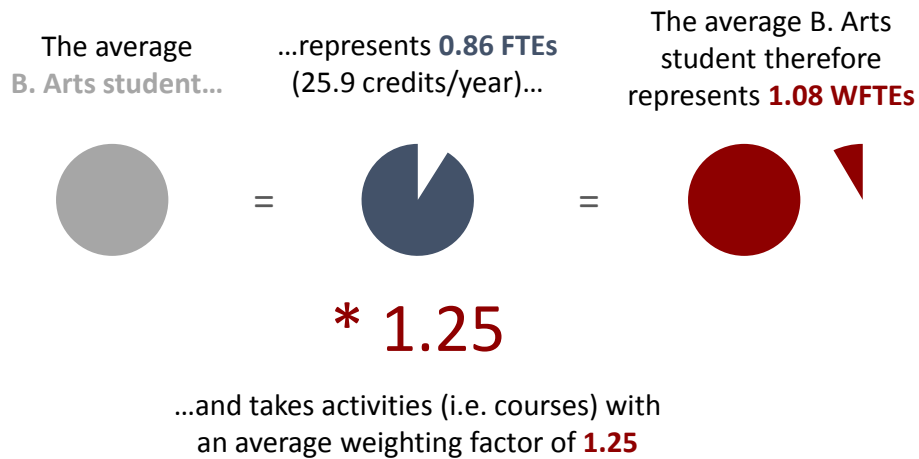
What is an FTE?

An FTE represents **30 credit hours** of course or program-based student activity:







What is a weighted FTE (WFTE)?

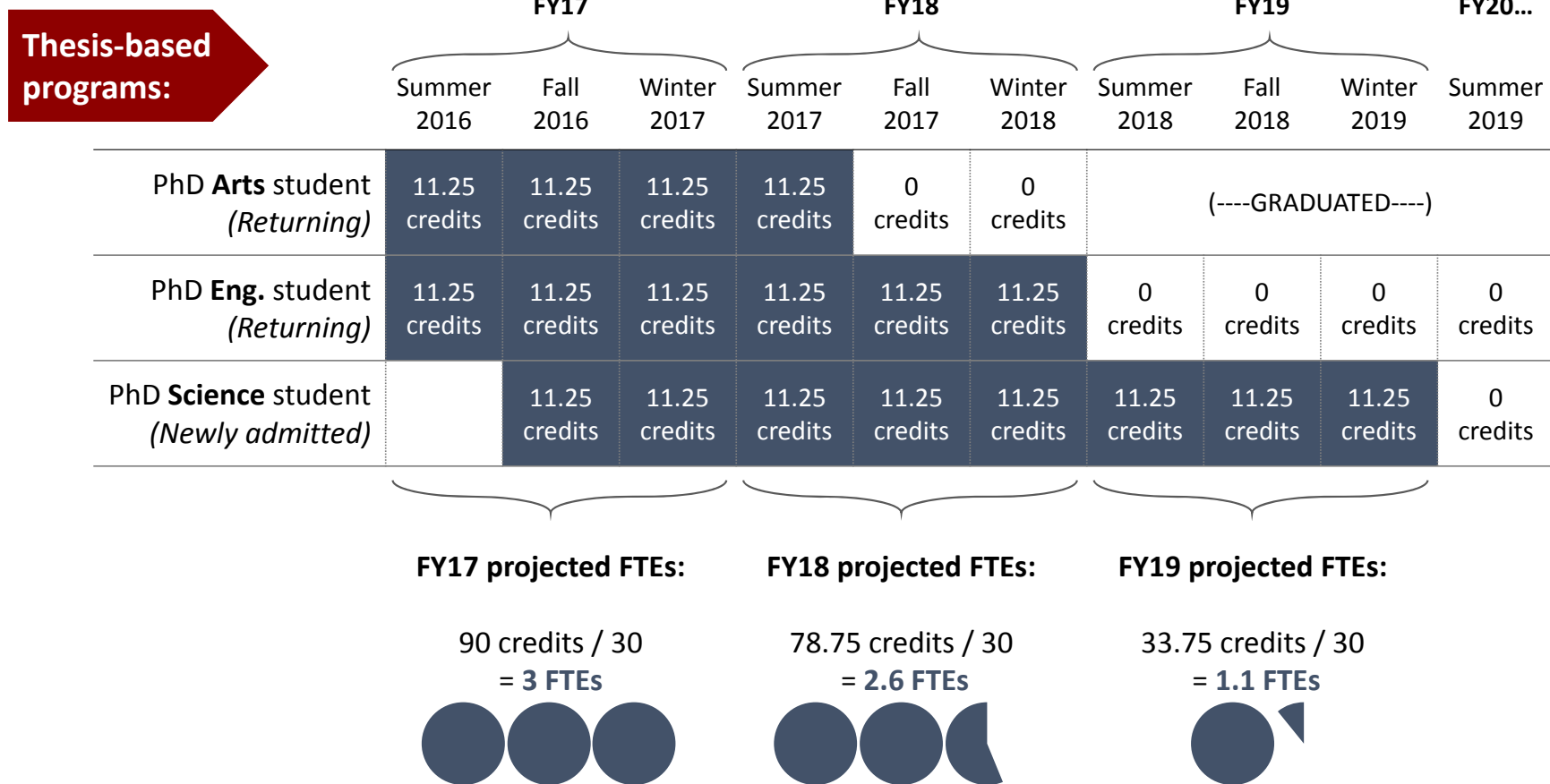
Each activity, or program, is associated with one of 23 Ministry “funding families”; each of which has associated weighting factors:



How is the enrolment plan used to forecast FTEs?

Course-based programs:	FY16 FTE-to-headcount ratio (i.e. student's average course load in a given program)	*	FY18 enrolment targets (Fall 2017 headcount)	=	FY18 FTE projections
B. Arts	 0.86	*	7,412	=	6390.6
B. Engineering	 0.94	*	2,849	=	2666.3
B. Science	 0.93	*	4,278	=	3993.8
M.D., C.M.	 1.72	*	746	=	1279.6

How is the enrolment plan used to forecast FTEs? (Cont'd)



How are FTEs converted to Weighted FTEs (WFTEs)?

Course-based programs:

FY16 FTE-to-headcount ratio
 (i.e. student's average course load in a given program)

* FY18 enrolment targets (Fall 2017 headcount)

= FY18 FTE projections

* FY16 WFTE-to-FTE ratio
 (i.e. average weighting factor for given program)

B. Arts



*

7,412

=

6390.6

*

1.25

B. Engineering



*

2,849

=

2666.3

*

1.88

B. Science



*

4,278

=

3993.8

*

1.90

M.D., C.M.



*

746

=




1279.6

*

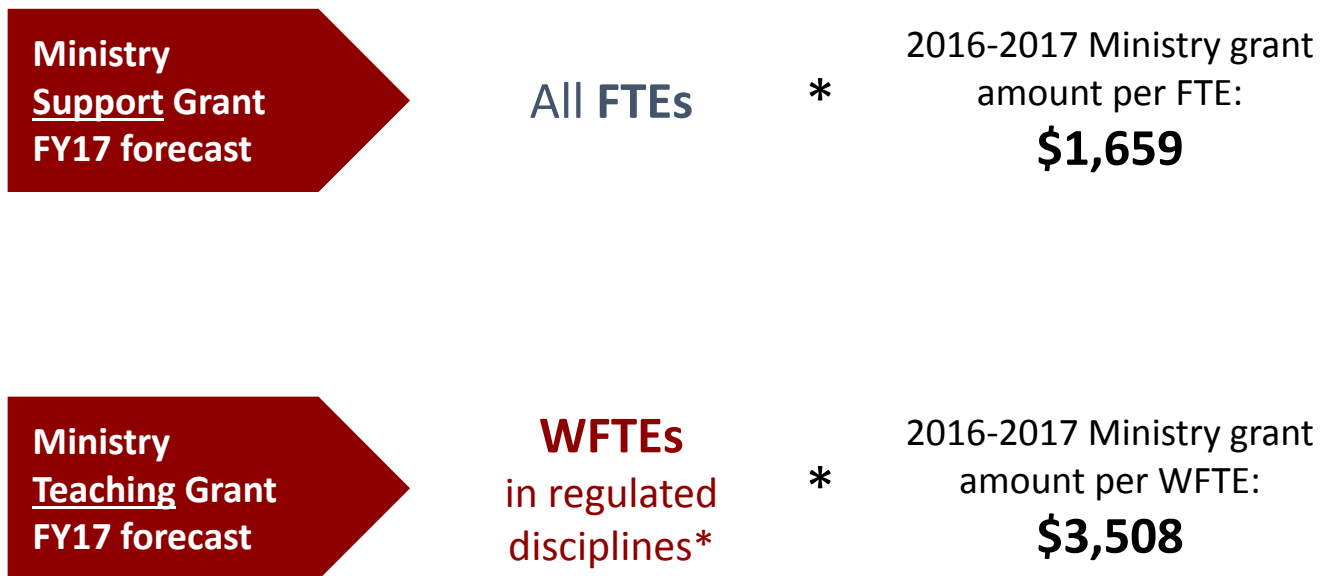
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How are FTEs converted to Weighted FTEs (WFTEs)? (Cont'd)

Thesis-based programs:	Program Weighting Factor	FY17			FY18			FY19			FY20...
		Summer 2016	Fall 2016	Winter 2017	Summer 2017	Fall 2017	Winter 2018	Summer 2018	Fall 2018	Winter 2019	Summer 2019
PhD Arts student <i>(Returning)</i>	6.40	11.25 * 6.40	11.25 * 6.40	11.25 * 6.40	11.25 * 6.40	0 credits	0 credits	(---GRADUATED---			
PhD Eng. student <i>(Returning)</i>	9.17	11.25 *9.17	11.25 *9.17	11.25 *9.17	11.25 *9.17	11.25 *9.17	11.25 *9.17	0 credits	0 credits	0 credits	0 credits
PhD Science student <i>(Newly admitted)</i>	9.73		11.25 *9.73	11.25 *9.73	11.25 *9.73	11.25 *9.73	11.25 *9.73	11.25 *9.73	11.25 *9.73	11.25 *9.73	0 credits

<p>FY17 projected WFTEs:</p> <p>744.4 credits / 30 = 24.8 WFTEs</p> 	<p>FY18 projected WFTEs:</p> <p>709.9 credits / 30 = 23.7 WFTEs</p> 	<p>FY19 projected WFTEs:</p> <p>328.3 credits / 30 = 10.9 WFTEs</p> 
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How are revenue forecasts calculated from the FTE and WFTE forecasts?



* Certain adjustments are made to WFTE numbers; detailed on upcoming slides

How are revenue forecasts calculated from the FTE and WFTE forecasts? (Cont'd)

➤ Tuition & Fees

- The *Director, Financial Services* prepares breakdown of tuition (and supplement) amounts & tuition FTEs
- Breakdown is a forecast for the current year only
- To forecast beyond 2016-2017, 2016-2017 APB FTE forecasts are adjusted relative to the tuition FTE forecasts
- **Tuition FTEs ≠ grant funded FTEs:**
 - Thesis students: Pay tuition 15 credit hours fall/winter; Ministry funds 11.25 credits fall/winter/summer
 - Bilateral exchange students: Incoming/outgoing generate grant funding; only outgoing generate tuition
- 2016-2017: tuition amounts from *Director, Financial Services* are used
- Beyond 2016-2017: tuition indexation applied to adjusted APB FTE forecasts

How are revenue forecasts calculated from the FTE and WFTE forecasts? (Cont'd)

FY17 Contribution to QC student aid forecast (part of recovery amount)

All FTEs

*

2016-2017 Ministry student aid contribution amount per FTE:

(\$292)

FY17 Tuition supplements forecast (part of recovery amount)

2016-2017 breakdown of tuition FTEs*:

- Quebec
- **Canadian Non-Resident QC**
- **French**
- **International regulated**
- International exempt
- International deregulated

2016-2017 Ministry supplement amounts per FTE:

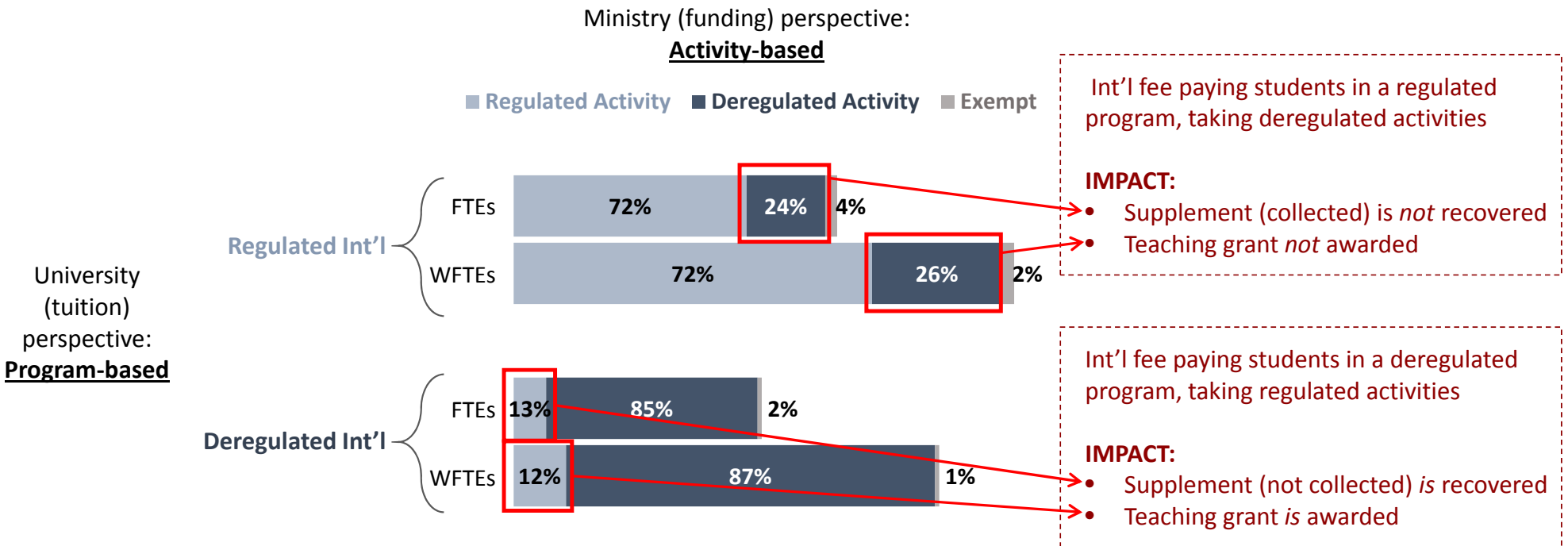
- **Canadian Non-Resident QC**
- **French**
- **International regulated**

*

* Breakdown prepared by *Director, Financial Services*

How are revenue forecasts calculated from the FTE and WFTE forecasts? (Cont'd)

➤ Adjustments to the International supplement recovery forecasts & teaching grant forecasts



NOTE: Bar chart has been scaled according to volume of FTEs/WFTEs

Prepared by Analysis, Planning & Budget – March 2017

How are revenue forecasts calculated from the FTE and WFTE forecasts? (Cont'd)

➤ Other adjustments to the International supplement recovery forecasts

- McGill internally allocates *more* (65-75 per year) differential fee waivers (DFWs) than maximum number allocated by Ministry
 - Ministry recovers international supplement associated with this overage

➤ Adjustments to the Canadian supplement recovery forecasts

- As of fall 2015, McGill collects the Canadian supplement on behalf of Ministry for French citizens entering undergraduate programs
- Canadian supplement forecasts adjusted to reflect this growth

Thank you!

