

**An Estimate of the Economic Impacts Generated by**  
**Memorial University of Newfoundland**



A Report prepared for the Office of Public Engagement,  
Memorial University of Newfoundland

Prepared through the Collaborative Applied Research in Economics (CARE)  
Initiative<sup>1</sup>

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<sup>1</sup> The Collaborative Applied Research in Economics (CARE) initiative is an initiative of the Department of Economics, Memorial University of Newfoundland. It brings together applied research economists to promote applied economic research within the region with a view to enabling a greater understanding of our economies and any associated wider social impacts.

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## Contents

Executive Summary.....	i
1.0 Introduction .....	1
2.0 Economic Impacts – The Highlights .....	4
2.1.a Employment Highlights by Campus .....	4
2.1.b Employment Highlights by Location .....	4
2.1.c Employment Highlights by Activity .....	4
2.2.a Salaries and Benefits Highlights by Campus .....	5
2.2.b Salaries and Benefits Highlights by Location .....	5
2.2.c Salaries and Benefits Highlights by Activity .....	5
2.3.a GDP Highlights by Campus .....	5
2.3.b GDP Highlights by Location .....	6
2.4.a Municipal Revenues Highlights by Campus .....	6
2.4.b Municipal Revenues Highlights by Location .....	6
2.5.a Provincial Revenues Highlights by Campus.....	7
2.5.b Provincial Revenues Highlights by Location.....	7
2.6.a Federal Revenues Highlights by Campus .....	8
2.6.b Federal Revenues Highlights by Location .....	8
2.7.a Inter-Firm Sales Highlights by Campus.....	9
2.7.b Inter-Firm Sales Highlights by Location .....	9
3.0 Inputs .....	10
3.1 Inputs – Employment – All Campuses.....	11
3.2 Inputs – Wages and Salaries – All Campuses .....	17
3.3 Inputs - Operations Expenditures – All Campuses.....	20
3.4 Inputs - Sponsored Research .....	22
3.5 Inputs - Students .....	24
3.5.1 Inputs - Students - Enrollment .....	24
3.5.2 Inputs - Students – Original Locations of MUN’s Students .....	27
3.6 Inputs – Students’ Expenditures .....	30
3.7 Inputs – Visitors’ Expenditures .....	35
3.8 Inputs - Infrastructure Investment - Equipment Purchases.....	37

3.9	Inputs - Infrastructure Investment - Buildings .....	39
3.10	Inputs - Pensioners.....	40
3.11	Inputs - Value of Higher Education .....	41
4.0	Outputs – University Operations – All Campuses .....	45
4.1	Outputs – University Operations – All Campuses - Employment .....	45
4.2	Outputs – University Operations – All Campuses – Salaries and Benefits.....	47
4.3	Outputs – University Operations – All Campuses – GDP .....	49
4.4	Outputs – University Operations – All Campuses – Municipal Revenues.....	51
4.5	Outputs – University Operations – All Campuses – Provincial Revenues.....	52
4.6	Outputs – University Operations – All Campuses – Federal Revenues.....	54
4.7	Outputs – University Operations – All Campuses – Inter-Firm Sales.....	56
5.0	Outputs – Sponsored Research – All Campuses .....	57
5.1	Outputs – Sponsored Research– All Campuses - Employment.....	57
5.2	Outputs – Sponsored Research – All Campuses – Salaries and Benefits .....	59
5.3	Outputs – Sponsored Research – All Campuses – GDP .....	60
5.4	Outputs – Sponsored Research – All Campuses – Municipal Revenues .....	62
5.5	Outputs – Sponsored Research – All Campuses – Provincial Revenues .....	63
5.6	Outputs – Sponsored Research – All Campuses – Federal Revenues.....	65
5.7	Outputs – Sponsored Research – All Campuses – Inter-Firm Sales .....	66
6.0	Outputs – Infrastructure/Equipment – All Campuses .....	69
6.1	Outputs – Infrastructure/Equipment – All Campuses - Employment.....	69
6.2	Outputs – Infrastructure/Equipment – All Campuses – Salaries and Benefits .....	70
6.3	Outputs – Infrastructure/Equipment – All Campuses – GDP.....	72
6.4	Outputs – Infrastructure/Equipment – All Campuses – Municipal Revenues .....	74
6.5	Outputs – Infrastructure/Equipment – All Campuses – Provincial Revenues .....	75
6.6	Outputs – Infrastructure/Equipment – All Campuses – Federal Revenues .....	77
6.7	Outputs – Infrastructure/Equipment – All Campuses – Inter-Firm Sales .....	79
7.0	Outputs – Pensions – All Campuses.....	81
7.1	Outputs – Pensions – All Campuses - Employment .....	81
7.2	Outputs – Pensions – All Campuses – Salaries and Benefits.....	82
7.3	Outputs – Pensions– All Campuses – GDP .....	84
7.4	Outputs – Pensions – All Campuses – Municipal Revenues .....	86

7.5	Outputs – Pensions – All Campuses – Provincial Revenues.....	87
7.6	Outputs – Pensions – All Campuses – Federal Revenues .....	89
7.7	Outputs – Pensions – All Campuses – Inter-Firm Sales.....	91
8.0	Outputs – Students’ Expenditures – All Campuses.....	93
8.1	Outputs – Students’ Expenditures– All Campuses - Employment .....	93
8.2	Outputs – Students’ Expenditures – All Campuses – Salaries and Benefits .....	94
8.3	Outputs – Students’ Expenditures – All Campuses – GDP .....	96
8.4	Outputs – Students’ Expenditures – All Campuses – Municipal Revenues .....	97
8.5	Outputs – Students’ Expenditures – All Campuses – Provincial Revenues.....	99
8.6	Outputs – Students’ Expenditures – All Campuses – Federal Revenues .....	100
8.7	Outputs – Students’ Expenditures – All Campuses – Inter-Firm Sales.....	102
9.0	Outputs – Visitors’ Expenditures – All Campuses .....	104
9.1	Outputs – Visitors’ Expenditures – All Campuses - Employment.....	104
9.2	Outputs – Visitors’ Expenditures – All Campuses – Salaries and Benefits.....	105
9.3	Outputs – Visitors’ Expenditures – All Campuses – GDP .....	107
9.4	Outputs – Visitors’ Expenditures – All Campuses – Municipal Revenues.....	108
9.5	Outputs – Visitors’ Expenditures – All Campuses – Provincial Revenues .....	110
9.6	Outputs – Visitors’ Expenditures – All Campuses – Federal Revenues.....	111
9.7	Outputs – Visitors’ Expenditures – All Campuses – Inter-Firm Sales .....	113
10.0	Outputs – Value of Higher Education – All Campuses .....	115
10.1	Outputs – Value of Higher Education – All Campuses - Employment .....	115
10.2	Outputs – Value of Higher Education –All Campuses – Salaries and Benefits.....	116
10.3	Outputs – Value of Higher Education – All Campuses – GDP .....	118
10.4	Outputs – Value of Higher Education - All Campuses – Municipal Revenues .....	120
10.5	Outputs – Value of Higher Education – All Campuses – Provincial Revenues .....	121
10.6	Outputs – Value of Higher Education – All Campuses – Federal Revenues.....	123
10.7	Outputs – Value of Higher Education – All Campuses – Inter-Firm Sales.....	125
11.0	Summary Output.....	127
11.1	Summary Outputs – Employment.....	127
11.2	Summary Outputs – Salaries and Benefits.....	136
11.3	Summary Outputs – GDP .....	146
11.4	Summary Outputs – Municipal Revenues.....	156

11.5	Summary Outputs – Provincial Revenues .....	165
11.6	Summary Outputs – Federal Revenues.....	175
11.7	Summary Outputs – Inter-Firm Sales.....	185
12.0	Conclusion.....	195

## List of Tables

Table ES 1: Summary of MUN’s Economic Impacts by Campus .....	vi
Table ES 2: Summary of MUN’s Economic Impacts by Region .....	vii

Table 1: People Employed by MUN .....	14
Table 2: Composition of MUN’s Employment .....	14
Table 3: Direct Salaries Paid at MUN .....	14
Table 4: Allocation Factors for Direct Operations Employment by Campus .....	15
Table 5: Allocation Factors for Direct Sponsored Research Employment by Campus .....	15
Table 6: Person-Years of Direct Employment by Campus .....	15
Table 7: MUN’s Wages, Salaries and Benefits .....	17
Table 8: MUN’s Salaries and Benefits for Direct Operations and Sponsored Research by Campus.....	18
Table 9: MUN’s Operations Expenditures.....	20
Table 10: MUN’s Operations Expenditure by Campus and Type of Expenditure (\$M) .....	21
Table 11: Annual and Average Sponsored Research Undertaken at MUN – All Campuses (\$M).....	23
Table 12: Average Annual Sponsored Research by Type of Expenditure – All Campuses (\$M) .....	23
Table 13: Enrollment by Type of Student - St. John’s campus.....	25
Table 14: Enrollment by Type of Student – Marine Institute .....	25
Table 15: Enrollment by Type of Student - Grenfell campus.....	26
Table 16: Geographical Breakdown of MUN’s Students.....	28
Table 17: Grouped Geographical Breakdown of MUN’s Students .....	29
Table 18: Geographical Shares of MUN’s Students .....	29
Table 19: Students Living at Home versus Renting and Associated Expenditures .....	31
Table 20: Average Monthly Rent for a One-Bedroom Apartment in St. John’s and Corner Brook .....	32
Table 21: Students’ Expenditures .....	33
Table 22: Allocation of \$3,500 of Annual Students’ Expenditures on Personal Items .....	34
Table 23: Assumed Monthly Expenditures by Type of Student.....	34
Table 24: Annual Students’ Expenditures by Campus (\$M).....	35
Table 25: Assumed Expenditures for Visitors .....	36
Table 26: Expenditures by Visitors to MUN – All Campuses (\$M) .....	36
Table 27: MUN’s Equipment Purchased at All Campuses and by Type of Equipment (\$M) .....	37
Table 28: MUN’s Equipment Purchased by Campus (\$M).....	37
Table 29: Investment in Buildings by Campus (\$M) .....	39
Table 30: MUN’s Pensioners and Survivors by Region .....	40
Table 31: Education Premium for a Bachelor’s Degree .....	41

Table 32: Average Total Income of the Population Aged 15 years and over by Highest Certificate, Diploma or Degree, by Province and Territory (2006 Census) (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick).....	42
Table 33: The Contribution of Bachelors and Higher Degrees to Incomes in Newfoundland and Labrador (number of degrees or graduates unless otherwise indicated).....	42
Table 34: Percentage of MUN's Graduates Assumed to Stay in Newfoundland and Labrador .....	44
Table 35: Employment Associated with Operations – All Campuses and Ten-Year Average (Person-Years) .....	46
Table 36: Salaries and Benefits Associated with Operations – All Campuses and Ten-Year Average (\$M).....	48
Table 37: GDP Associated with MUN 's Operations – All Campuses and Ten-Year Average (\$M) .....	49
Table 38: Municipal Revenues Associated with MUN 's Operations – All Campuses and Ten-Year Average (\$M).....	51
Table 39: Provincial Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M).....	53
Table 40: Federal Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M).....	54
Table 41: Inter-Firm Sales Associated with Operations – All Campuses and Ten-Year Average (\$M) .....	56
Table 42: Employment Associated with Sponsored Research – All Campuses and Ten-Year Average (Person-Years).....	58
Table 43: Salaries and Benefits Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M) .....	59
Table 44: GDP Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M).....	61
Table 45: Municipal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M) .....	62
Table 46: Provincial Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M) .....	64
Table 47: Federal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M).....	65
Table 48: Inter-Firm Sales Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M).....	67
Table 49: Employment Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	69
Table 50: Salaries and Benefits Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	71
Table 51: GDP Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	72
Table 52: Municipal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	74
Table 53: Provincial Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	76
Table 54: Federal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	77

Table 55: Inter-Firm Sales Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	79
Table 56: Employment Associated with Pensions – All Campuses and Ten-Year Average (Person-Years) .....	81
Table 57: Salaries and Benefits Associated with Pensions – All Campuses and Ten-Year Average (\$M) ...	83
Table 58: GDP Associated with Pensions – All Campuses and Ten-Year Average (\$M) .....	84
Table 59: Municipal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M) ....	86
Table 60: Provincial Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M) ....	88
Table 61: Federal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M) .....	89
Table 62: Inter-Firm Sales Associated with Pensions – All Campuses and Ten-Year Average (\$M) .....	91
Table 63: Employment Associated with Students’ Expenditures – All Campuses and Ten-Year Average (Person-Years) .....	93
Table 64: Salaries and Benefits Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	95
Table 65: GDP Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	96
Table 66: Municipal Revenues Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	98
Table 67: Provincial Revenues Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	99
Table 68: Federal Revenues Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	101
Table 69: Inter-Firm Sales Associated with Students’ Expenditure – All Campuses and Ten-Year Average (\$M) .....	102
Table 70: Employment Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (Person-Years) .....	104
Table 71: Salaries and Benefits Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	106
Table 72: GDP Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	107
Table 73: Municipal Revenues Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	109
Table 74: Provincial Revenues Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	110
Table 75: Federal Revenues Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	112
Table 76: Inter-Firm Sales Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	113
Table 77: Employment Associated with Value of Higher Education – All Campuses and Ten-Year Average (Person-Years) .....	115
Table 78: Salaries and Benefits Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	117
Table 79: GDP Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	118
Table 80: Municipal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	120



Table 81: Provincial Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	122
Table 82: Federal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	123
Table 83: Inter-Firm Sales Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	125
Table 84: Summary Output – Employment (Person-Years).....	128
Table 85: Summary Output – Salaries and Benefits (\$M).....	138
Table 86: Summary Output – GDP (\$M) .....	148
Table 87: Summary Output – Municipal Revenues (\$M).....	157
Table 88: Summary Output – Provincial Revenues (\$M).....	167
Table 89: Summary Output – Federal Revenues (\$M).....	177
Table 90: Summary Output – Inter-Firm Sales (\$M).....	186

## List of Figures

Figure 1: The Flow of Economic Impacts for Memorial University.....	11
Figure 2: People Employed by MUN .....	13
Figure 3: Average Composition of MUN’s Employment by Type of Employee .....	13
Figure 4: Average Direct Operations Employment by Campus – Including that Associated with Sponsored Research.....	16
Figure 5: Average Direct Operations Employment by Campus – Excluding that Associated with Sponsored Research.....	16
Figure 6: Average Direct Sponsored Research Employment by Campus.....	17
Figure 7: Wages, Salaries and Benefits Paid at NL.....	18
Figure 8: Average Operations Salaries and Benefits by Campus – Including Sponsored Research .....	19
Figure 9: Average Operations Salaries and Benefits by Campus – Excluding Sponsored Research .....	19
Figure 10: Average Sponsored Research Salaries and Benefits by Campus .....	20
Figure 11: MUN’s Operations Expenditures .....	21
Figure 12: MUN’s Operations Expenditure by Type of Expenditure.....	22
Figure 13: Annual Sponsored Research Undertaken at MUN – All Campuses .....	23
Figure 14: Average Annual Sponsored Research by Type of Expenditure – All Campuses .....	24
Figure 15: Fall Semester Enrollment at the St. John’s Campus by Type of Enrollment.....	26
Figure 16: Fall Semester Enrollment at the Marine Institute by Type of Enrollment.....	27
Figure 17: Fall Semester Enrollment at the Grenfell campus by Type of Enrollment .....	27
Figure 18: Grouped Geographical Breakdown of MUN’s Students .....	29
Figure 19: Geographical Shares of MUN’s Students.....	30
Figure 20: Monthly Rent for a One-Bedroom Apartment in St. John’s .....	32
Figure 21: Monthly Rent for a One-Bedroom Apartment in Corner Brook.....	33
Figure 22: Students’ Expenditures by Type of Expenditure – All Campuses .....	35
Figure 23: Expenditures by Visitors to MUN by Type of Expenditure – All Campuses .....	37

Figure 24: MUN's Equipment Purchased at All Campuses and by Type of Equipment .....	38
Figure 25: MUN's Equipment Purchased by Campus .....	38
Figure 26: MUN's Equipment Purchased by Type of Purchase - All Campuses .....	39
Figure 27: Investment in Buildings by Campus (\$M) .....	40
Figure 28: Percentage of MUN's Graduates Assumed to Stay in Newfoundland and Labrador .....	44
Figure 29: Employment Associated with Operations – All Campuses and Ten-Year Average.....	47
Figure 30: Salaries and Benefits Associated with Operations – All Campuses and Ten-Year Average (\$M) .....	49
Figure 31: GDP Associated with MUN 's Operations – All Campuses and Ten-Year Average (\$M).....	50
Figure 32: Municipal Revenues Associated with MUN 's Operations – All Campuses and Ten-Year Average (\$M).....	52
Figure 33: Provincial Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M).....	54
Figure 34: Federal Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M).....	55
Figure 35: Inter-Firm Sales Associated with Operations – All Campuses and Ten-Year Average .....	57
Figure 36: Employment Associated with Sponsored Research – All Campuses and Ten-Year Average.....	59
Figure 37: Salaries and Benefits Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M) .....	60
Figure 38: GDP Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M).....	62
Figure 39: Municipal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M) .....	63
Figure 40: Provincial Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M) .....	65
Figure 41: Federal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M).....	66
Figure 42: Inter-Firm Sales Associated with Sponsored Research – All Campuses and Ten-Year Average	68
Figure 43: Employment Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average .....	70
Figure 44: Salaries and Benefits Associated with Infrastructure and Equipment – All Campuses and Ten- Year Average (\$M) .....	72
Figure 45: GDP Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M).....	73
Figure 46: Municipal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten- Year Average (\$M) .....	75
Figure 47: Provincial Revenues Associated with Infrastructure and Equipment – All Campuses and Ten- Year Average (\$M) .....	77
Figure 48: Federal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M) .....	78
Figure 49: Inter-Firm Sales Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average .....	80
Figure 50: Employment Associated with Pensions – All Campuses and Ten-Year Average .....	82

Figure 51: Salaries and Benefits Associated with Pensions – All Campuses and Ten-Year Average (\$M)..	84
Figure 52: GDP Associated with Pensions – All Campuses and Ten-Year Average (\$M) .....	85
Figure 53: Municipal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)...	87
Figure 54: Provincial Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)...	89
Figure 55: Federal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M) .....	90
Figure 56: Employment Associated with Pensions – All Campuses and Ten-Year Average .....	92
Figure 57: Employment Associated with Students’ Expenditures – All Campuses and Ten-Year Average	94
Figure 58: Salaries and Benefits Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	96
Figure 59: GDP Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	97
Figure 60: Municipal Revenues Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	99
Figure 61: Provincial Revenues Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	100
Figure 62: Federal Revenues Associated with Students’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	102
Figure 63: Inter-Firm Sales Associated with Students’ Expenditure – All Campuses and Ten-Year Average .....	103
Figure 64: Employment Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average.	105
Figure 65: Salaries and Benefits Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	107
Figure 66: GDP Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	108
Figure 67: Municipal Revenues Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	110
Figure 68: Provincial Revenues Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	111
Figure 69: Federal Revenues Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M) .....	112
Figure 70: Inter-Firm Sales Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average .....	114
Figure 71: Employment Associated with Value of Higher Education– All Campuses and Ten-Year Average .....	116
Figure 72: Salaries and Benefits Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	118
Figure 73: GDP Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	119
Figure 74: Municipal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	121
Figure 75: Provincial Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	123
Figure 76: Federal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M) .....	124

Figure 77: Inter-Firm Sales Associated with Value of Higher Education – All Campuses and Ten-Year Average .....	126
Figure 78: Employment Impacts Associated with MUN by Campus – All Functions .....	130
Figure 79: Share of Employment Impacts Associated with MUN by Campus – All Functions.....	130
Figure 80: Employment Impacts for All Campuses Associated with MUN by Region – All Functions.....	131
Figure 81: Share of Employment Impacts for All Campuses Associated with MUN by Region – All Functions.....	131
Figure 82: Share of Employment Impacts for All Campuses Associated with MUN by Function – All Functions.....	132
Figure 83: Employment Impacts for the St. John’s campuses of MUN by Region – All Functions .....	132
Figure 84: Share of Employment Impacts for the St. John’s campuses of MUN by Region .....	133
Figure 85: Share of Employment Impacts for the St. John’s campuses of MUN by Function .....	133
Figure 86: Employment Impacts for the Marine Institute of MUN by Region – All Functions .....	134
Figure 87: Share of Employment Impacts for the Marine Institute of MUN by Region – All Functions...	134
Figure 88: Share of Employment Impacts for the Marine Institute of MUN by Function .....	135
Figure 89: Employment Impacts for the Grenfell campus of MUN by Region – All Functions.....	135
Figure 90: Share of Employment Impacts for the Grenfell campus of MUN by Region – All Functions...	136
Figure 91: Share of Employment Impacts for the Grenfell campus of MUN by Function – All Functions	136
Figure 92: Salaries and Benefits Impacts for All Campuses of MUN by Campus – All Functions .....	140
Figure 93: Share of Salaries and Benefits Impacts for All Campuses of MUN by Campus – All Functions	140
Figure 94: Salaries and Benefits Impacts for All Campuses of MUN by Region – All Functions .....	141
Figure 95: Share of Salaries and Benefits Impacts for All Campuses of MUN by Region – All Functions.	141
Figure 96: Share of Salaries and Benefits Impacts for All Campuses of MUN by Function .....	142
Figure 97: Salaries and Benefits Impacts for the St. John’s Campus of MUN by Region – All Functions .	142
Figure 98: Share of Salaries and Benefits Impacts for the St. John’s Campus of MUN by Region – All Functions.....	143
Figure 99: Share of Salaries and Benefits Impacts for the St. John’s Campus of MUN by Function.....	143
Figure 100: Salaries and Benefits Impacts for the Marine Institute of MUN by Region – All Functions ..	144
Figure 101: Share of Salaries and Benefits Impacts for the Marine Institute of MUN by Region – All Functions.....	144
Figure 102: Share of Salaries and Benefits Impacts for the Marine Institute of MUN by Function – All Functions.....	145
Figure 103: Salaries and Benefits Impacts for the Grenfell campus of MUN by Region – All Functions..	145
Figure 104: Share of Salaries and Benefits Impacts for the Grenfell campus of MUN by Region – All Functions.....	146
Figure 105: Share of Employment Impacts for the Grenfell campus of MUN by Function .....	146
Figure 106: GDP Impacts for All Campuses of MUN by Campus – All Functions.....	149
Figure 107: Share of GDP Impacts for All Campuses of MUN by Campus – All Functions .....	150
Figure 108: GDP Impacts for All Campuses of MUN by Region – All Functions.....	150
Figure 109: Share of GDP Impacts for All Campuses of MUN by Region – All Functions .....	151
Figure 110: Share of GDP Impacts for All Campuses of MUN by Function.....	151
Figure 111: GDP Impacts for the St. John’s Campus of MUN by Region – All Functions .....	152

Figure 112: Share of GDP Impacts for the St. John's Campus of MUN by Region – All Functions.....	152
Figure 113: Share of GDP Impacts for the St. John's Campus of MUN by Function .....	153
Figure 114: GDP Impacts for the Marine Institute of MUN by Region – All Functions.....	153
Figure 115: Share of GDP Impacts for the Marine Institute MUN by Region – All Functions.....	154
Figure 116: Share of GDP Impacts for the Marine Institute of MUN by Function .....	154
Figure 117: GDP Impacts for the Grenfell campus of MUN by Region – All Functions .....	155
Figure 118: Share of GDP Impacts for the Grenfell campus of MUN by Region – All Functions .....	155
Figure 119: Share of GDP Impacts for the Grenfell campus of MUN by Function.....	156
Figure 120: Municipal Revenues Impacts for All Campuses of MUN by Campus – All Functions .....	159
Figure 121: Share of Municipal Revenues Impacts for All Campuses of MUN by Campus – All Functions .....	159
Figure 122: Municipal Revenues Impacts for All Campuses of MUN by Region – All Functions .....	160
Figure 123: Share of Municipal Revenues Impacts for All Campuses of MUN by Region – All Functions	160
Figure 124: Share of Municipal Revenues Impacts for All Campuses of MUN by Function .....	161
Figure 125: Municipal Revenues Impacts for the St. John's Campus of MUN by Region – All Functions	161
Figure 126: Share of Municipal Revenues Impacts for the St. John's Campus of MUN by Region – All Functions.....	162
Figure 127: Share of Municipal Revenues Impacts for the St. John's Campus of MUN by Function.....	162
Figure 128: Municipal Revenues Impacts for the Marine Institute of MUN by Region – All Functions ...	163
Figure 129: Share of Municipal Revenues Impacts for the Marine Institute of MUN by Region – All Functions.....	163
Figure 130: Share of Municipal Revenues Impacts for the Marine Institute of MUN by Function .....	164
Figure 131: Municipal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions...	164
Figure 132: Share of Municipal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions.....	165
Figure 133: Share of Municipal Revenues Impacts for the Grenfell campus of MUN by Function .....	165
Figure 134: Provincial Revenues Impacts for All Campuses of MUN by Campus – All Functions.....	168
Figure 135: Share of Provincial Revenues Impacts for All Campuses of MUN by Campus – All Functions .....	169
Figure 136: Provincial Revenues Impacts for All Campuses of MUN by Region – All Functions .....	169
Figure 137: Share of Provincial Revenues Impacts for All Campuses of MUN by Region – All Functions	170
Figure 138: Share of Provincial Revenues Impacts for All Campuses of MUN by Function.....	170
Figure 139: Provincial Revenues Impacts for the St. John's Campus of MUN by Region – All Functions.	171
Figure 140: Share of Provincial Revenues Impacts for the St. John's Campus of MUN by Region – All Functions.....	172
Figure 141: Share of Provincial Revenues Impacts for the St. John's Campus of MUN by Function.....	172
Figure 142: Provincial Revenues Impacts for the Marine Institute of MUN by Region – All Functions ...	173
Figure 143: Share of Provincial Revenues Impacts for the Marine Institute of MUN by Region – All Functions.....	173
Figure 144: Share of Provincial Revenues Impacts for the Marine Institute of MUN by Function .....	174
Figure 145: Provincial Revenues Impacts for the Grenfell campus of MUN by Region – All Functions ...	174

Figure 146: Share of Provincial Revenues Impacts for the Grenfell campus of MUN by Region – All Functions.....	175
Figure 147: Share of Provincial Revenues Impacts for the Grenfell campus of MUN by Function – All Functions.....	175
Figure 148: Federal Revenues Impacts for All Campuses of MUN by Campus – All Functions .....	178
Figure 149: Share of Federal Revenues Impacts for All Campuses of MUN by Campus – All Functions..	179
Figure 150: Federal Revenues Impacts for All Campuses of MUN by Region – All Functions .....	179
Figure 151: Share of Federal Revenues Impacts for All Campuses of MUN by Region – All Functions....	180
Figure 152: Share of Federal Revenues Impacts for All Campuses of MUN by Function .....	180
Figure 153: Federal Revenues Impacts for the St. John’s Campus of MUN by Region – All Functions ....	181
Figure 154: Share of Federal Revenues Impacts for the St. John’s Campus of MUN by Region – All Functions.....	181
Figure 155: Share of Federal Revenues Impacts for the St. John’s Campus of MUN by Function.....	182
Figure 156: Federal Revenues Impacts for the Marine Institute of MUN by Region – All Functions .....	182
Figure 157: Share of Federal Revenues Impacts for the Marine Institute of MUN by Region – All Functions.....	183
Figure 158: Share of Federal Revenues Impacts for the Marine Institute of MUN by Function .....	183
Figure 159: Federal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions.....	184
Figure 160: Share of Federal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions.....	184
Figure 161: Share of Federal Revenues Impacts for the Grenfell campus of MUN by Function – All Functions.....	185
Figure 162: Inter-Firm Sales Impacts for All Campuses of MUN by Campus – All Functions .....	188
Figure 163: Share of Inter-Firm Sales Impacts for All Campuses of MUN by Campus – All Functions .....	188
Figure 164: Inter-Firm Sales Impacts for All Campuses of MUN by Region – All Functions .....	189
Figure 165: Share of Inter-Firm Sales Impacts for All Campus of MUN by Region – All Functions .....	189
Figure 166: Share of Inter-Firm Sales Impacts for All Campus of MUN by Function .....	190
Figure 167: Inter-Firm Sales Impacts for the St. John’s Campus of MUN by Region – All Functions.....	190
Figure 168: Share of Inter-Firm Sales Impacts for the St. John’s Campus of MUN by Region – All Functions .....	191
Figure 169: Share of Inter-Firm Sales Impacts for the St. John’s Campus of MUN by Function.....	191
Figure 170: Inter-Firm Sales Impacts for the Marine Institute of MUN by Region – All Functions .....	192
Figure 171: Share of Inter-Firm Sales Impacts for the Marine Institute of MUN by Region – All Functions .....	192
Figure 172: Share of Inter-Firm Sales Impacts for the Marine Institute of MUN by Function .....	193
Figure 173: Inter-Firm Sales Impacts for the Grenfell campus of MUN by Region – All Functions .....	193
Figure 174: Share of Inter-Firm Sales Impacts for the Grenfell campus of MUN by Region – All Functions .....	194
Figure 175: Share of Inter-Firm Sales Impacts for the Grenfell campus of MUN by Function – All Functions.....	194

## Executive Summary

Memorial University of Newfoundland (MUN), the only university in the province of Newfoundland and Labrador (NL), comprises three campuses, the largest of which is located in the City of St. John's, as is the Marine Institute, the university's centre for marine education and applied research. The Grenfell campus, operating on the west coast in the City of Corner Brook, offers degree programs in liberal arts and sciences, with a focus on the fine arts and the environment. The Labrador Institute, although not a campus, was established by MUN to stimulate, coordinate and support major projects and programs, and to simultaneously expand the Labrador knowledge base. The specific mandate of the Labrador Institute is twofold: to raise awareness of the needs and interests of Labradorians and to facilitate actions that will bring the capacities of the University to bear on these needs and interests. MUN also operates its Harlow Campus in the United Kingdom, where MUN students are offered the opportunity to study, research, and explore in the European Union. Similarly, its Programme Frecker provides the opportunity to experience French language and culture on the island of Saint-Pierre off the south coast of Newfoundland.

In 2012, there were 18,236 students enrolled at Memorial University<sup>2</sup> — 13,331 of whom listed their place of residence as NL; 1,694 were international students, and 3,211 were students whose places of residence was listed as Canadian provinces or territories other than NL. Of the total student body, 3,386 were graduate students and 14,850 were undergraduates. In 2013, the university awarded over 3,500 degrees at its May and October convocation ceremonies — 2,438 general undergraduate degrees, 262 honours undergraduate degrees, 749 masters, and 64 PhDs.

During fiscal year 2012-13, MUN employed 8,223 people and spent more than \$580 million on salaries and employee benefits, purchasing goods and services, equipment rental, and scholarships.<sup>3</sup> When the employment levels were adjusted for the proportion of part-time, seasonal, contractual and permanent employees, 8,223 employees were equivalent to 3,873 full-time jobs. In addition, university researchers undertook nearly \$70 million of sponsored research in 2012-13, and MUN students received nearly \$27 million in scholarships.

The university's expenditures and educational/research activities have had significant and substantial impacts on economic activities within the province. These impacts, especially pronounced in the communities in which university campuses are located, were manifested through increased local employment, elevated demand for goods and services, expanded tax bases for all three levels of government, and a general improvement in overall economic activities, as reflected in enhanced GDP and an increased value of business transactions.

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<sup>2</sup> In addition to the 18,236 graduate and undergraduate students, there were 245 post graduate (medicine) students and 671 diploma and certificate students with the Marine Institute.

<sup>3</sup> Memorial University's Consolidated Financial Statements with Supplementary Schedules, March 31, 2013.

MUN's Office of Public Engagement commissioned the input-output analysis presented below. This multi-faceted analysis, performed by the Collaborative Applied Research in Economics (CARE) initiative, involved applying EcoTec Consultants' input-output model to MUN-specific data.<sup>4</sup> Specifically, this input-output analysis evaluated the economic impacts<sup>5</sup> for MUN as a single institution, for the St. John's campus as separate entity, for the Marine Institute as a distinct campus, for the Grenfell campus as a unique economic impact generator, and for activities associated with the Labrador Institute. It also assessed the economic impacts from the perspective of the regions in which the economic impacts were manifested as distinct from the campuses through which the impacts occurred. For example, the economic impacts were considered for the province as a whole, for the Avalon Peninsula, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of the province. EcoTec Consultants' Economic Impact Model was used to calculate the following direct, indirect, induced and total economic impacts:<sup>6</sup>

- employment;
- salaries and benefits;
- GDP;
- government revenues (municipal, provincial and federal);<sup>7</sup> and
- inter-firm sales.<sup>8</sup>

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<sup>4</sup> EcoTec Consultants has undertaken over 200 economic impact simulations throughout Canada using leading-edge models. Dynamic and non-linear, the EcoTec model integrates Interprovincial Input-Output technology with econometric modules and can estimate direct, indirect and induced impacts and generate the following statistics: (1) employment and sales by industry; (2) Gross Domestic Product, including wages and salaries; (3) federal, provincial and municipal government tax revenues; (4) labour force: impact on the unemployment rate and the number of unemployed; and (5) employment by occupations; energy consumption, by energy source; and GHG production. Their model can estimate economic impacts for the whole country, for each of the ten provinces or by Census Divisions. At the country and the provincial levels, the model provides the complete breakdown of impacts, not only for the geographical area where the initial expenditures took place, but also for all regions.

<sup>5</sup> In interpreting the results presented in this analysis, it is important to recognize that this study is not a cost-benefit analysis of MUN; rather, it attempts to derive the economic impacts that flow from the activities of the university. While the economic impacts presented in this analysis are legitimate economic impacts generated by MUN, they are not meant to reflect the net benefits of the university.

<sup>6</sup> Direct impacts pertain to labour and incomes directly received from MUN. The indirect impacts are generated in firms from which MUN purchases goods and services to MUN. Induced impacts are the jobs and incomes manifested in the services sector as people employed directly with and indirectly through the university spend their incomes on things like restaurants, bars, food, etc. Specifically, the economic impact is induced by the additional expenditure engendered by the incomes created directly and indirectly by MUN. The total impact is the sum of the direct, indirect and induced impacts.

By way of illustration, direct employment relates to employment that is associated with direct university expenditures. This would include the employment of faculty and staff as part of MUN's ongoing operations. Indirect employment is the employment created in firms that supply goods and services to the university such as professional firms that supply services to MUN. Induced employment is the employment created in the services industry that is induced by the extra spending of direct and indirect employees. This might include, for example, employment at restaurants and hotels created as extra incomes get spent in the local economy.

<sup>7</sup> Federal taxes include personal income taxes, taxes on corporate profits, harmonized sales taxes and various indirect taxes, including excise taxes, gasoline taxes and other indirect taxes. Provincial taxes include personal income taxes, taxes on corporate profits, harmonized sales taxes and various indirect taxes, including gasoline taxes, alcohol and tobacco taxes and other indirect taxes. The municipal taxes are property taxes.



Each of these impacts was calculated for the following expenditures/activities undertaken by MUN:

- university operations (net of sponsored research and net of scholarships);
- sponsored research;<sup>9</sup>
- infrastructure/equipment expenditures;
- pensions;
- students' expenditures;
- visitors' expenditures; and
- the value of university degrees granted through the University.<sup>10</sup>

It is important to appreciate that, in considering the results presented in this report, the economic impacts should, unless otherwise stated explicitly, be interpreted as the sum of the direct, indirect and induced impacts that occurred within NL. As well, the impacts correspond to their annual average values derived from the most recent ten years for which data were available for this study — that is, 2003-04 to 2012-13, inclusive.

The analysis presented in this report demonstrates that MUN has had, and continues to have, significant, substantial and sustainable economic impacts on the province of NL. While the success of the University is tied to the progress and prosperity achieved within the province, the converse is also true. In other words, the current prosperity being experienced by NL has been enabled, enhanced and facilitated by University activities.

Although the detailed economic impacts and methodological minutia are provided and discussed throughout this document, high-level summaries, describing the economic impacts associated with MUN over the past ten years (2003-04 to 2012-13), by campus and by region of the province, are presented in Tables ES1 and ES2. These summaries profile the “big picture.” In other words, this high-level summary provides a perspective on the magnitude of the forest before delving down through the canopy to focus on the importance of each individual tree.

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<sup>8</sup> Inter-firm sales indicate the business activity created by the expenditure in question. For example, when the university purchases a vehicle for \$40,000 from a dealer, it will trigger a number of other purchases, including those associated with the manufacturer of the vehicle and in the firms that supply inputs to the vehicle manufacturer, such as tires, etc. The sum of all of these transactions is the inter-firm sales that are created in each location.

<sup>9</sup> There was no attempt to measure the impact of sponsored research on total factor productivity as was done in other studies looking at the economic impacts of universities. While the authors recognize that this is a significant economic impact which has been omitted from this study, it was felt that sufficiently precise data was not available to allow its inclusion in this version of the study.

<sup>10</sup> Sudmant, W., 2009, The Economic Impact of the University of British Columbia, p. 3, <http://www.pair.ubc.ca/reports/EconomicImpact2009.pdf> included the impact of a university-educated workforce as one of the impacts counted for the economic impacts credited to the University of British Columbia. A. Biggs and Jennings, J., 2012, The Economic Impact of the University of Alberta: A Comparative Approach, University of Alberta, p. 6, [http://media.wix.com/ugd/553b1c\\_adc04818fa7c4381a592f20432dc94d8.pdf](http://media.wix.com/ugd/553b1c_adc04818fa7c4381a592f20432dc94d8.pdf) also included an education premium in the economic impacts for the economic impacts associated with the University of Alberta.

### All Campuses Combined

- MUN's operations and investment expenditures, research activities, and educational efforts were responsible for 11,160 full-time-equivalent jobs per year in NL. This corresponded to 5.6% of the 198,900 full-time jobs reported for the province in 2013.<sup>11</sup>
- MUN's activities enabled \$566 million in salaries and benefits to be paid per year to local workers, which equalled 4.2% of the \$13,458 million in total labour income reported for the province in 2013.<sup>12</sup>
- In excess of \$1 billion in provincial GDP annually originated from MUN's activities. This was equivalent to 3.1% of the \$33.8 billion GDP recorded for NL in 2012.<sup>13</sup>
- Municipal revenues increased by \$24.0 million per year because of university activities. Approximately \$22.2 million accrued to local governments on the Avalon Peninsula — primarily to the City of St. John's. This revenue was equivalent to approximately 11.4% of the City of St. John's taxation and own-source revenues approved in its 2013 Budget.<sup>14</sup>
- MUN's activities enhanced provincial government revenues by \$139 million, representing 3.0% of the revenues, net of offshore royalties, reported in the 2014 provincial budget.<sup>15</sup>
- The federal government received \$93 million annually as a result of MUN's activities.
- MUN's activities supported \$2.0 billion annually in inter-firm sales within the province.

### St. John's campus

- The activities at the St. John's campus enabled the creation of 9,420 full-time-equivalent jobs per year in NL.
- The salaries and benefits paid per year to NL workers resulting from activities at the St. John's campus totalled \$475 million.
- The St. John's campus was responsible for an average annual provincial GDP of \$873 million.
- Local governments received \$20.3 million per year in municipal revenues from activities at the St. John's campus.
- The St. John's campus generated \$117.7 million in provincial government revenues.
- Expenditures at the St. John's campus resulted in \$78.5 million in federal revenues.
- Nearly \$1,726 million in inter-firm sales per annum within the province emanated from the activities of the St. John's campus.

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<sup>11</sup> Department of Finance, Government of Newfoundland and Labrador's website:  
[http://www.stats.gov.nl.ca/Statistics/Labour/PDF/LFC\\_Gender.pdf](http://www.stats.gov.nl.ca/Statistics/Labour/PDF/LFC_Gender.pdf).

<sup>12</sup> Department of Finance, Government of Newfoundland and Labrador's website:  
[http://www.stats.gov.nl.ca/Statistics/GDP/PDF/Labour\\_Income\\_NL.pdf](http://www.stats.gov.nl.ca/Statistics/GDP/PDF/Labour_Income_NL.pdf).

<sup>13</sup> Department of Finance, Government of Newfoundland and Labrador's website:  
[http://www.stats.gov.nl.ca/Statistics/GDP/PDF/GDP\\_Current\\_Prices.pdf](http://www.stats.gov.nl.ca/Statistics/GDP/PDF/GDP_Current_Prices.pdf).

<sup>14</sup> The City of St. John's 2013 budget is available at  
<http://www.stjohns.ca/sites/default/files/files/publication/City%20Budget%202013%20final.pdf>. The projected taxation revenue for 2013 was \$187 million and there was \$7.3 million in other own-source revenues.

<sup>15</sup> Statements and Exhibits of 2014 Budget Speech available at  
[http://www.budget.gov.nl.ca/budget2014/speech/budget\\_2014\\_statments\\_exhibits.pdf](http://www.budget.gov.nl.ca/budget2014/speech/budget_2014_statments_exhibits.pdf).

### Marine Institute

- The Marine Institute activities supported 954 full-time-equivalent jobs per year in NL.
- Annual salaries and benefits paid to workers connected to activities at the Marine Institute amounted to \$53 million.
- The GDP impacts of the Marine Institute were \$87.2 million annually in NL.
- Municipal governments benefitted by \$1.6 million in revenues per year as a result of the activities at the Marine Institute.
- The activities associated with the Marine Institute were responsible for increasing provincial government revenues by \$10.6 million annually.
- A further \$7.5 million in revenues accrued to the federal government annually.
- Annual business sales within NL were increased by \$176.2 million through the activities of the Marine Institute.

### Grenfell campus

- 775 full-time-equivalent jobs materialized annually in NL because of the Grenfell campus.
- The activities at the Grenfell campus accounted for \$38 million in salaries and benefits paid annually to NL workers.
- \$72.1 million per year in provincial GDP was linked to the activities at the Grenfell campus.
- Local governments benefitted by \$1.8 million because of the Grenfell campus. This level of revenue compared to approximately 5.9% of the City of Corner Brook's operating revenues approved in the city's 2013 Budget.<sup>16</sup>
- The activities at the Grenfell campus created \$9.8 million in provincial revenues annually.
- The federal government received \$6.3 million in additional revenues per year due to the activities associated with the Grenfell campus.
- In excess of \$142 million in annual inter-firm sales within the province came about as a result of the activities undertaken at Grenfell campus.

### Labrador Institute

- The Labrador Institute activities created 10 full-time-equivalent jobs per year.
- \$0.6 million in salaries and benefits per year resulted from the activities associated with the Labrador Institute.
- \$1.0 million in GDP per year originated with the activities at the Labrador Institute.
- Provincial revenues increased by \$0.1 million per year due to the Labrador Institute.
- The Labrador Institute enabled \$0.1 million in federal government revenues annually.
- An additional \$1.8 million in inter-firm sales annually were supported by the activities of the Labrador Institute.

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<sup>16</sup> The City of Corner Brook's 2013 budget is available at <http://www.cornerbrook.com/images/Budget%202013/Budget%20Speech%202013%20Final.pdf>. The projected operating revenue 2013 was \$30.7 million.

**Table ES 1: Summary of MUN's Economic Impacts by Campus**

<b>Impact</b>	<b>St. John's</b>	<b>Grenfell</b>	<b>Marine Institute</b>	<b>Labrador Institute</b>	<b>All Campuses Combined</b>
Employment Impact (PY)	9,420	775	954	10	<b>11,160</b>
Salaries and Benefits (\$M)	\$475.0	\$38.0	\$53.0	\$0.6	<b>\$566</b>
GDP Impact (\$M)	\$873.0	\$72.1	\$87.2	\$1.0	<b>\$1,033</b>
Municipal Revenues (\$M)	\$20.3	\$1.8	\$1.6	\$0.1	<b>\$24</b>
Provincial Revenues (\$M)	\$117.7	\$9.8	\$10.6	\$0.1	<b>\$139</b>
Federal Revenues (\$M)	\$78.5	\$6.3	\$7.5	\$0.0	<b>\$92</b>
Business Revenues (\$M)	\$1,726.0	\$142.0	\$176.2	\$1.8	<b>\$2,046</b>

**Location – Avalon Peninsula**

- MUN's expenditures, research activities, and education efforts generated 9,558 person-years of employment per year on the Avalon Peninsula.
- Workers on the Avalon Peninsula received \$495 million per annum in salaries and benefits.
- The activities of MUN resulted in \$907 million annually in provincial GDP being created on the Avalon Peninsula.
- Municipal governments on the Avalon Peninsula collected \$22.2 million per year in revenues.
- Approximately \$127 million flowed to the provincial government.
- The university contributed \$84 million in federal revenues on the Avalon Peninsula.
- MUN's activities were the basis for nearly \$1,762 million annually in inter-firm sales or business activity on the Avalon Peninsula.

**Location – Corner Brook/Deer Lake Region**

- MUN's expenditures, research activities, and education efforts have supported 832 full-time-equivalent jobs per year in the Corner Brook/Deer Lake region.
- Approximately, \$41 million in salaries and benefits per year have been paid to NL workers in the Corner Brook/Deer Lake region.
- \$68 million in provincial GDP per year originated in the Corner Brook/Deer Lake region.
- An additional \$1.1 million of municipal revenues were received per year in the Corner Brook/Deer Lake region.
- The provincial government collected almost \$7.0 million from within the Corner Brook/Deer Lake region as a result of MUN's activities.
- The university accounted for \$5.3 million in federal government revenues produced in the Corner Brook/Deer Lake region annually.
- MUN's activities enabled nearly \$149 million in inter-firm sales in the Corner Brook/Deer Lake region annually.

#### Location – Labrador

- Almost 147 person-years of employment per year in Labrador were connected to MUN's activities.
- Workers in Labrador received \$6.6 million in salaries and benefits per year.
- \$13 million in provincial GDP per year emanated in Labrador via the activities of MUN.
- Local government revenues in Labrador increased by \$0.2 million per year.
- MUN's activities were the genesis for \$1.1 million in provincial revenues collected in Labrador.
- The university enabled \$0.8 million in federal revenues in Labrador annually.
- Labrador businesses saw their revenues increase to \$30 million per annum due to MUN's activities.

#### Location – Rest of Newfoundland

- MUN's expenditures, research activities, and education efforts have supported 623 full-time-equivalent jobs per year in the rest of the province.
- Salaries and benefits paid per year to NL workers in the rest of the province because of MUN's activities totalled \$23.8 million.
- \$45 million in annual provincial GDP flowed from the rest of the province as a result of the activities associated with MUN.
- The activities of MUN supported an additional \$0.5 million per year in municipal revenues in the rest of the province.
- Provincial government revenues received in the rest of the province because of the activities of MUN equalled \$3.7 million per year.
- The university accounted for \$2.8 million of the federal government revenues that was collected annually in the rest of province.
- MUN's activities explained nearly \$106 million of the per annum increase in inter-firm sales in the rest of province.

**Table ES 2: Summary of MUN's Economic Impacts by Region**

<b>Impact</b>	<b>Avalon</b>	<b>Corner Brook Deer Lake</b>	<b>Labrador</b>	<b>Rest of Province</b>	<b>All Campuses Combined</b>
Employment Impact (PY)	9,558	832	147	623	<b>11,160</b>
Salaries and Benefits (\$M)	\$495.0	\$41.0	\$6.6	\$23.8	<b>\$566</b>
GDP Impact (\$M)	\$907.0	\$68.0	\$13.0	\$45.0	<b>\$1,033</b>
Municipal Revenues (\$M)	\$22.2	\$1.1	\$0.2	\$0.5	<b>\$24</b>
Provincial Revenues (\$M)	\$127.0	\$7.0	\$1.1	\$3.7	<b>\$139</b>
Federal Revenues (\$M)	\$84.0	\$5.3	\$0.8	\$2.8	<b>\$92</b>
Business Revenues (\$M)	\$1,762.0	\$149.0	\$30.0	\$106.0	<b>\$2,047</b>

## 1.0 Introduction

As indicated on its website,<sup>17</sup> Memorial University of Newfoundland (MUN), the only university in the province of Newfoundland and Labrador (NL), is comprised of three campuses, the largest of which is located in the City of St. John's, as is the Marine Institute, MUN's centre for marine education and applied research. The Grenfell campus, operating on the west coast in the City of Corner Brook, offers degree programs in liberal arts and sciences, with a focus on the fine arts and the environment. The Bonne Bay Marine Station, also on the west coast, is operated by MUN and the Gros Morne Co-operating Association, and is dedicated to increasing knowledge of marine ecology. In the north, MUN operates the Labrador Institute, with offices in Happy Valley-Goose Bay, Labrador City and North West River. The Labrador Institute, although not a campus, was established by MUN both to stimulate, coordinate, and support major projects and programs and to simultaneously expand the Labrador knowledge base. The specific mandate of the Labrador Institute is twofold: to raise awareness of the needs and interests of Labradorians and to facilitate actions that will bring the capacities of the University to bear on these needs and interests. MUN also operates its Harlow Campus in the United Kingdom, where MUN students are offered the opportunity to study, research, and explore in the European Union. Similarly, its Programme Frecker provides the opportunity to experience French language and culture on the island of Saint-Pierre off the south coast of Newfoundland.

MUN offers more than 450 distance education course options to allow its students access to a university education from anywhere in the world. In 2012, there were 18,236 students enrolled at the University<sup>18</sup> — 13,331 of whom listed their place of residence as NL; 1,694 were international students, and 3,211 were students whose places of residence were listed as Canadian provinces or territories other than NL. The 18,236 students attending MUN consisted of 3,386 graduate students and 14,850 undergraduates. In the most recent year available at the time of writing,<sup>19</sup> the university awarded over 3,500 degrees at its May and October convocation ceremonies — 2,438 general undergraduate degrees, 262 honours undergraduate degrees, 749 masters, and 64 PhDs.

During fiscal year 2012-13, MUN spent in excess of \$580 million on salaries and employee benefits, on purchasing goods and services, on equipment rentals and on scholarships.<sup>20</sup> During this period, the University employed 8,223 people.<sup>21</sup> When adjusted for the proportion of part-time, seasonal, contractual and permanent employees, 8,223 employees are equivalent to 3,873 full-time jobs utilized

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<sup>17</sup> <http://www.mun.ca/memorial/about/>

<sup>18</sup> See, Memorial University Fact Book, 2013, [http://www.mun.ca/ciap/Analysis/Factbook/2013/Table\\_1\\_FactBook2013.pdf](http://www.mun.ca/ciap/Analysis/Factbook/2013/Table_1_FactBook2013.pdf)

<sup>19</sup> See, Memorial University Fact Book, 2013, [http://www.mun.ca/ciap/Analysis/Factbook/2013/Table\\_1\\_FactBook2013.pdf](http://www.mun.ca/ciap/Analysis/Factbook/2013/Table_1_FactBook2013.pdf)

<sup>20</sup> Table 2 of the Memorial University's Financial Statements which are available at [http://www.mun.ca/finance/fin\\_reports/](http://www.mun.ca/finance/fin_reports/)

<sup>21</sup> The number of people employed by type are available from Table 27 of Memorial University's Fact Book available at [http://www.mun.ca/ciap/Analysis/fact\\_book.php](http://www.mun.ca/ciap/Analysis/fact_book.php)

in this analysis. University researchers performed nearly \$70 million of sponsored research in 2012-13, and \$27 million in scholarships were awarded to MUN students.<sup>22</sup>

All of these expenditures contributed to economic activities within NL. This was especially pronounced in those communities in which the university's campuses operated. These economic impacts were manifested through increased local employment, elevated demand for goods and services, expanded tax bases for all three levels of government, and a general improvement in overall economic activity through GDP and business transactions.

MUN's Office of Public Engagement commissioned the input-output analysis presented below. This multi-faceted analysis, performed by the Collaborative Applied Research in Economics (CARE) initiative, involved applying EcoTec Consultants' input-output model to MUN-specific data.<sup>23</sup> Specifically, this study analyzed the economic impacts<sup>24</sup> for MUN as a single institution; for the St. John's campus separately; for the Marine Institute as a distinct campus; for the Grenfell campus as a separate entity; and for the activities in Labrador associated with the Labrador Institute. This input-output analysis evaluated the economic impacts based on the location of the impacts as distinct from the campus through which the impacts occurred. In particular, the economic impacts were considered for the province as a whole, for the Avalon Peninsula, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of the province. Additionally, EcoTec Consultants' Economic Impact Model was used to calculate the direct, indirect, induced and total economic impacts<sup>25</sup> for employment, for salaries and benefits, for GDP, for government revenues (municipal, provincial and federal), and for inter-firm sales.<sup>26</sup>

Each of these impacts was calculated for the average expenditures/activities undertaken by MUN and include, for example:

- university operations (net of sponsored research and net of scholarships);

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<sup>22</sup> Table 2 of the Memorial University's Financial Statements which are available at [http://www.mun.ca/finance/fin\\_reports/](http://www.mun.ca/finance/fin_reports/)

<sup>23</sup> EcoTec Consultants undertaken over 200 economic impact simulations throughout Canada using leading-edge models. Dynamic and non-linear, the EcoTec model integrates Interprovincial Input-Output technology with econometric modules and can estimate direct, indirect and induced impacts and generate the following statistics: (1) employment and sales by industry; (2) Gross Domestic Product, including wages and salaries; (3) federal, provincial and municipal government tax revenues; (4) labour force: impact on the unemployment rate and the number of unemployed; and (5) employment by occupations; and energy consumption, by energy source; and GHG production. Their model can estimate economic impacts for the whole country, for each of the ten provinces or by Census Divisions. At both the county and the provincial levels, the model provides the complete breakdown of impacts, not only for the geographical area where the initial expenditures took place, but also for all regions.

<sup>24</sup> It is important to recognize that this study is not a cost-benefit analysis of Memorial University. Rather, this study attempts to derive the economic impacts that flow from the activities of the University.

<sup>25</sup> Direct impacts pertain to labour and incomes directly received from MUN. The indirect impacts are generated in firms that supply goods and services to MUN. Induced impacts are the jobs and incomes created in the services sector as people employed directly and indirectly with the university spend their incomes on things like restaurants, bars, food, etc. The total impact is the sum of the direct, indirect and induced impacts.

<sup>26</sup> Inter-firm sales indicate the business activity created by the expenditure in question.

- sponsored research;
- infrastructure/equipment expenditures;
- pensions;
- students' expenditures;
- visitors' expenditures; and
- the value of university degrees granted through MUN.<sup>27</sup>

It is important to appreciate that, in considering the results presented in this report, the economic impacts should, unless otherwise explicitly stated, be interpreted as the sum of the direct, indirect and induced impacts that occurred within NL. As well, the impacts represent the annual average impacts derived from the most recent ten years for which data were available for this study — that is, 2003-04 to 2012-13.

The analysis presented in this report demonstrates that MUN has had, and continues to have, a significant, substantial and sustainable economic impact on the province. While the success of MUN is tied to the progress of the province, the converse is also true. For instance, the current prosperity being experienced by NL has been enhanced, facilitated and enabled by the university's activities.

This report consists of 12 sections, which include the introduction and the conclusion. A summary of the key highlights is provided in Section 2. Section 3 outlines and describes the inputs that were used in this analysis. The detailed outputs are discussed and presented in Sections 4 through 10. Specifically, Section 4 pertains to the economic impacts calculated for the operations of MUN; Section 5 discusses the impacts associated with sponsored research; the economic impacts emanating from infrastructure investment and equipment purchases are dealt with in Section 6; Section 7 presents the analysis of the economic impacts that flow from pensions; the economic impacts that flow from students' and visitors' expenditures are dealt with in Section 8 and 9, respectively; and Section 10 discusses the economic impacts generated by a more educated workforce whose degrees were earned through MUN. The outputs are summarized by type of impact in Section 11 and Section 12 provides the conclusion.

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<sup>27</sup> Sudmant, W., 2009, *The Economic Impact of the University of British Columbia*, p.3 <http://www.pair.ubc.ca/reports/EconomicImpact2009.pdf> included the impact of a university-educated workforce as one of the impacts counted for the economic impacts credited to the University of British Columbia. Biggs, A. and Jennings, J., 2012, *The Economic Impact of the University of Alberta: A Comparative Approach*, University of Alberta, p. 6([http://media.wix.com/ugd/553b1c\\_adc04818fa7c4381a592f20432dc94d8.pdf](http://media.wix.com/ugd/553b1c_adc04818fa7c4381a592f20432dc94d8.pdf)) also includes an education premium in the economic impacts for the economic impacts associated with the University of Alberta.



## 2.0 Economic Impacts – The Highlights

This section provides a brief summary of the average annual economic impacts estimated for MUN by campus, by location, and by activity over the period 2003-04 to 2012-13.

### 2.1.a Employment Highlights by Campus

The 11,160 full-time-equivalent jobs connected to MUN by campus were:

- 84.4% of employment or 9,420 person-years<sup>28</sup> per year came from the St. John's campus;
- 8.6% of employment or 954 person-years per year resulted from the activities of the Marine Institute;
- 6.9% of employment or 775 person-years per year originated with the Grenfell campus; and
- 0.1% of employment or 10 person-years per year were realized through MUN's operations in Labrador.

### 2.1.b Employment Highlights by Location

The distribution of the employment impacts within the province was:

- 85.6% of employment or 9,558 person-years per year occurred on the Avalon Peninsula;
- 7.6% of employment or 832 person-years per year resulted in the Corner Brook/Deer Lake region;
- 1.3% of employment or 147 person-years per year took place in Labrador; and
- 5.6% of employment or 623 person-years per year were produced throughout the rest of the island.

### 2.1.c Employment Highlights by Activity

The employment by specific activity performed by MUN was:

- Ongoing university operations accounted for 47.2% or 5,263 person-years;
- 32.4% of employment or 3,617 person-years per year emanated from a more educated workforce;
- 8.7% of employment or 973 person-years resulted from students' purchases within the local economy;
- 5.9% of employment or 655 person-years were attributable to sponsored research;
- 2.6% of employment or 287 person-years came through expenditures by MUN pensioners;
- 2.2% of employment or 251 person-years resulted from infrastructure and equipment investments; and
- 1.0% of employment or 115 person-years were created through expenditures by visitors to MUN.

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<sup>28</sup> A person-year of employment consists of one person working 2,000 hours per year or any combination of workers whose combined hours of work constitute 2,000 hours. This can consist of one full-time-equivalent employee working 2,000 hours or 4 contractual employees, each working 500 hours per year or approximately 10 hours per week on average for 50 weeks of the year.

### **2.2.a Salaries and Benefits Highlights by Campus**

The \$566 million in average annual salaries and benefits paid to Newfoundland and Labrador workers comprised the following distribution by campus:

- 84.0% of the salaries and benefits or \$475.1 million per year were associated with the St. John's campus;
- 9.3% of the salaries and benefits or \$52.5 million per year were linked to the Marine Institute;
- 6.6% of the salaries and benefits or \$37.6 million per year were traced to the Grenfell campus; and
- 0.1% of the salaries and benefits or \$0.6 million per year were due to MUN's operations in Labrador.

### **2.2.b Salaries and Benefits Highlights by Location**

The distribution of the average salaries and benefits impacts within the province was:

- 87.4% of the salaries and benefits or \$495.0 million per year occurred on the Avalon Peninsula;
- 7.2% of the salaries and benefits or \$40.9 million per year accrued to workers in the Corner Brook/Deer Lake region;
- 1.2% of the salaries and benefits or \$6.6 million per year resulted in Labrador; and
- 4.2% of the salaries and benefits or \$22.7 million per year were realized in the rest of the island.

### **2.2.c Salaries and Benefits Highlights by Activity**

The salaries and benefits by specific activity performed by MUN were:

- Ongoing university operations accounted for 60.9% of the salaries and benefits or \$344.6 million;
- 22.2% of the salaries and benefits or \$125.7 million originated from a more educated workforce;
- 6.2% of the salaries and benefits or \$35.0 million resulted from students' purchases within the local economy;
- 6.7% of the salaries and benefits or \$37.7 million were attributable to sponsored research;
- 1.8% of the salaries and benefits or \$10.0 million came through expenditures by MUN pensioners;
- 1.8% of the salaries and benefits or \$10.1 million resulted from MUN's investments in infrastructure and equipment; and
- 0.5% of the salaries and benefits or \$3.1 million were created through expenditures by visitors to MUN.

### **2.3.a GDP Highlights by Campus**

The average annual GDP of \$1,033 million that flowed from the activities of MUN was distributed across all campuses as follows:

- 84.5% of the GDP or \$873.0 million per year were generated by activities at the St. John's campus;

- 8.4% of the GDP or \$87.2 million per year were due to expenditures at the Marine Institute;
- 7.0% of the GDP or \$72.1 million per year resulted from the Grenfell campus; and
- 0.1% of the GDP or \$0.8 million per year were created by MUN's operations in Labrador.

### 2.3.b GDP Highlights by Location

The distribution of MUN-related GDP within the province was:

- 87.8% of the GDP or \$907.4 million per year resulted on the Avalon Peninsula;
- 6.6% of the GDP or \$67.7 million per year occurred in the Corner Brook/Deer Lake region;
- 1.3% of the GDP or \$13.2 million per year took place in Labrador; and
- 4.3% of the GDP or \$44.9 million per year were realized in the rest of Newfoundland.

### 2.3.c GDP Highlights by Activity

The GDP by specific activity performed by MUN was:

- Ongoing university operations accounted for 44.6% (\$461.3 million) of the annual GDP;
- 35.4% of the GDP or \$366.1 million flowed from a more educated workforce;
- 9.5% of the GDP or \$97.9 million resulted from to students' purchases within the local economy;
- 5.2% of the GDP or \$53.4 million were attributable to sponsored research;
- 2.8% of the GDP or \$29.1 million came through expenditures by MUN pensioners;
- 1.9% of the GDP or \$19.4 million were accounted for by infrastructure and equipment investments; and
- 0.6% of the GDP or \$6.0 million were linked to visitors' expenditures.

### 2.4.a Municipal Revenues Highlights by Campus

The average annual municipal revenues of \$24 million that were created by the activities of MUN were distributed across all campuses as follows:

- 85.7% of the municipal revenues or \$20.3 million per year was created through the St. John's campus;
- 6.7% of the municipal revenues or \$1.6 million per year flowed from the Marine Institute;
- 7.6% of the municipal revenues or \$1.8 million per year was due to the Grenfell campus; and
- 0.0% of the municipal revenues or \$0.0 million per year was generated by MUN's operations in Labrador.<sup>29</sup>

### 2.4.b Municipal Revenues Highlights by Location

The distribution of MUN-generated municipal revenues within the province was:

- 92.9% of the municipal revenues or \$22.2 million per year occurred on the Avalon Peninsula;

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<sup>29</sup> The 0.0% impact in Labrador indicates that while the impact exists, it is too small to be picked up in the input-output model so a value of zero has been entered. This is also the case for other statistics for which a value of zero has been entered.

- 4.5% of the municipal revenues or \$1.1 million per year flowed to communities in the Corner Brook/Deer Lake region;
- 0.7% of the municipal revenues or \$0.2 million per year took place in Labrador; and
- 1.9% of the municipal revenues or \$0.4 million per year were realized in the rest of Newfoundland.

### **2.4.c Municipal Revenues Highlights by Activity**

The MUN-generated municipal revenues by specific activity performed by MUN were:

- Ongoing university operations accounted for 26.7% of the municipal revenues or \$6.4 million;
- 52.9% of the municipal revenues or \$12.7 million flowed from a more educated workforce;
- 10.8% of the municipal revenues or \$2.6 million resulted from students' purchases within the local economy;
- 3.4% of the municipal revenues or \$0.7 million were attributable to sponsored research;
- 3.9% of the municipal revenues or \$0.8 million came through expenditures by MUN pensioners;
- 1.5% of the municipal revenues or \$0.3 million occurred as a result of infrastructure and equipment investments; and
- 0.5% of the municipal revenues or \$0.1 million of the local government revenues were linked to visitors' expenditures.

### **2.5.a Provincial Revenues Highlights by Campus**

The average annual provincial revenues of \$139 million created by the activities of MUN were distributed across all campuses as follows:

- 85.1% (\$117.7 million per year) were accounted for by the St. John's campus;
- 7.7% (\$10.6 million per year) were associated with the Marine Institute;
- 7.1% (\$9.8 million per year) were due to the Grenfell campus; and
- 0.1% (\$0.1 million per year) resulted from Memorial University's operations in Labrador.

### **2.5.b Provincial Revenues Highlights by Location**

The distribution of MUN-generated provincial revenues within the province was:

- 91.6% of the provincial revenues or \$126.9 million per year occurred on the Avalon Peninsula;
- 5.0% of the provincial revenues or \$6.7 million per year were created in the Corner Brook/Deer Lake region;
- 0.8% of the provincial revenues or (\$1.1 million per year took place in Labrador; and
- 2.7% of the provincial revenues or \$3.7 million per year were realized in the rest of Newfoundland.

### **2.5.c Provincial Revenues Highlights by Activity**

The provincial revenues generated by specific activity performed by MUN were as follows:

- Ongoing university operations accounted for 33.6% of the provincial revenues or \$46.5 million;

- 46.5% of the provincial revenues or \$64.4 million were explained by a more educated workforce;
- 10.2% of the provincial revenues or \$14.1 million resulted from students' purchases within the provincial economy;
- 4.2% of the provincial revenues or \$5.0 million were attributable to sponsored research;
- 3.5% of the provincial revenues or \$4.1 million came through expenditures by MUN pensioners;
- 1.4% of the provincial revenues or \$1.6 million resulted from investments in infrastructure and equipment; and
- 0.6% of the provincial revenues or \$0.7 million were linked to visitors' expenditures.

### **2.6.a Federal Revenues Highlights by Campus**

The average annual federal revenues of \$93 million that were created by the activities of MUN were distributed across all campuses as follows:

- 85.0% of the federal revenues or \$78.5 million per year were connected to the St. John's campus;
- 8.1% of the federal revenues or \$7.5 million per year emanated from the Marine Institute;
- 6.8% of the federal revenues or \$6.3 million per year came through the Grenfell campus; and
- 0.1% of the federal revenues or \$0.1 million per year were associated with MUN's operations in Labrador.

### **2.6.b Federal Revenues Highlights by Location**

The distribution of MUN-generated federal revenues within the province include:

- 90.4% of the federal revenues or \$83.9 million per year occurred on the Avalon Peninsula;
- 5.7% of the federal revenues or \$5.3 million per year resulted in the Corner Brook/Deer Lake region;
- 0.8% of the federal revenues or \$0.8 million per year took place in Labrador; and
- 3.1% of the federal revenues or \$2.88 million per year were realized in the rest of Newfoundland.

### **2.6.c Federal Revenues Highlights by Activity**

The MUN-generated federal revenues by specific activity were:

- Ongoing university operations accounted for 41.3% of the federal revenues or \$38.3 million;
- 39.3% of the federal revenues or \$36.5 million were traced to a more educated workforce;
- 9.7% of the federal revenues or \$9.0 million were linked to students' purchases within the economy;
- 4.6% of the federal revenues or \$4.3 million were attributable to sponsored research;
- 3.1% of the federal revenues or \$2.9 million came through expenditures by MUN pensioners;
- 1.6% of the federal revenues or \$1.4 million resulted from investments in infrastructure and equipment; and

- 0.4% of the federal revenues or \$0.4 million were linked to visitors' expenditures.

### **2.7.a Inter-Firm Sales Highlights by Campus**

The average annual inter-firm sales of \$2,046 million that were created by the activities of MUN were distributed across all campuses as follows:

- 84.4% (\$1,725.5 million) was associated with the St. John's campus;
- 8.6% (\$176.2 million) was linked to the Marine Institute;
- 6.9% (\$142.1 million) was due to the Grenfell campus; and
- 0.1% (\$1.8 million) was accounted for by Memorial University's operations in Labrador.

### **2.7.b Inter-Firm Sales Highlights by Location**

The distribution of MUN-generated inter-firm sales within the province was:

- 86.1% (\$1,762.2 million per year) occurred on the Avalon Peninsula;
- 7.3% of inter-firm sales (\$148.6 million) resulted in the Corner Brook/Deer Lake region;
- 1.4% (\$29.5 million) took place in Labrador; and
- 5.2% (\$105.6 million per year) was realized in the rest of Newfoundland.

### **2.7.c Inter-Firm Sales Highlights by Activity**

The MUN-generated inter-firm sales by specific activity were:

- Ongoing university operations accounted for 47.4% (\$969.9 million);
- 30.4% (\$622.2 million) was explained by a more educated workforce;
- 9.4% (\$192.9 million) was linked to students' purchases in the federal economy;
- 6.7% (\$136.9 million) was attributable to sponsored research;
- 2.4% (\$49.4 million) came through expenditures by MUN pensioners;
- 3.0% (\$61.8 million) resulted from investments in infrastructure and equipment; and
- 0.6% (\$12.8 million) was linked to visitor expenditures.

### 3.0 Inputs

MUN's economic impacts were generated through a number of avenues. First, MUN employed faculty and staff on a permanent or contractual basis and students on a part-time or seasonal basis, and these employees received salaries and benefits. Some of their earned incomes were spent on local goods and services, elevating demands for other goods and services from local businesses, which, in turn, had further knock-on effects. Additional economic impacts were traced back to MUN as these additional demands for goods and services flowed throughout the economy.

The purchases of the goods and services that were needed to operate the institution, to undertake research, and to construct and maintain its physical infrastructure represented a second route through which local economic impacts were connected to MUN. In other words, the firms that supply goods and services to MUN received income indirectly from the University. From this indirect income, the firms derived profits, paid their employees, and purchased other inputs from their own suppliers. These indirect transactions, correspondingly, have had additional flow-through expenditure, income, and employment effects that spread throughout the economy.

A third transmission route for MUN's economic impacts occurred through the spending of the direct and indirect incomes on goods and services purchased within the province. In the parlance of input-output analyses, the additional employment and income impacts were induced through the services sector within the province.

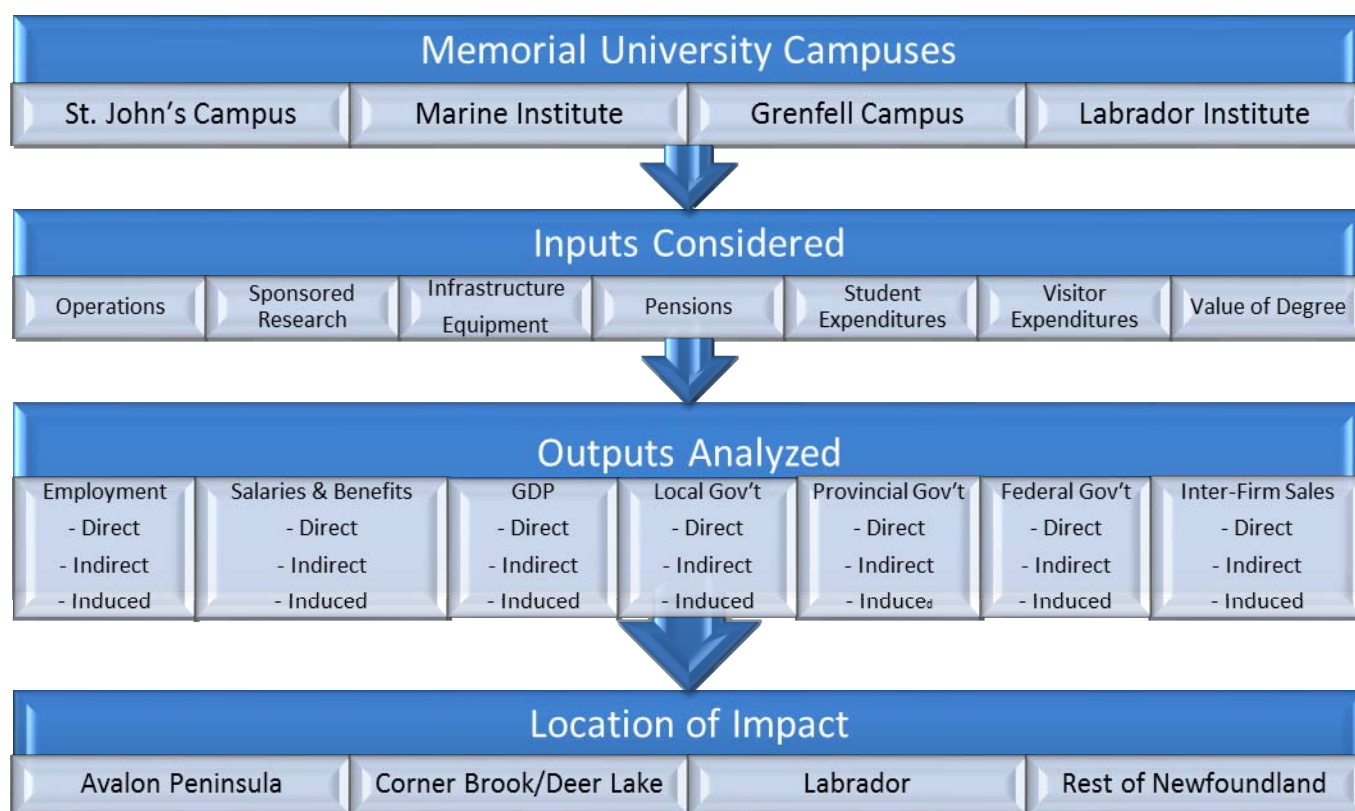
Supplementing MUN's expenditure impacts were students' purchases of goods and services and those expenditures by people who visited the students. Likewise, MUN's retirees received pensions and some of these pension incomes were spent within the province. The local expenditures by pensioners created additional economic impacts that were linked to MUN. That is, expenditures by students, visitors and pensioners were part of the economic impacts associated with MUN. Finally, and more importantly, the undergraduate and graduate degrees earned from MUN resulted in a more educated workforce, increased labour productivity, and enhanced the earning capacity of Newfoundlanders and Labradorians. These elevated incomes led to higher local expenditures on housing, automobiles, etc., which translated into further economic impacts attributable to the existence of MUN. In other words, the education premiums earned by students who graduated from MUN have had significant, substantial and sustainable economic impacts.

The route through which economic impacts were calculated in this study is illustrated in Figure 1 below. There was a campus/location focus to the economic impacts — the St. John's campus, the Marine Institute, the Grenfell campus, and the Labrador Institute. There was a regional focus to the economic impacts — those that occurred on the Avalon Peninsula, the impacts felt in the Corner Brook/Deer Lake region, the impacts generated in Labrador, the impacts created in the rest of Newfoundland, and the impacts that were realized throughout the province as a whole. There was also a functional focus to the economic impacts — those impacts emanating from university operations, those generated by sponsored research, those that came from expenditures on infrastructure/equipment, those generated

by expenditures of pensioners, those that flowed from students' expenditures, those that resulted from visitors' expenditures, and those that were created by the value of a degree or that were explained by the education premium. Finally, there was an output focus — the impacts that showed up through employment, that resulted in increased salaries and benefits, that were manifested through enhanced GDP, that contributed to higher provincial, federal and municipal taxes, and those reported as increased inter-firm sales.

The inputs utilized in this analysis and the outputs derived from the analysis are discussed in the sections that follow.

Figure 1: The Flow of Economic Impacts for Memorial University



### 3.1 Inputs – Employment – All Campuses

A significant proportion of MUN's economic impacts was realized directly through the people employed by the university at each of its campuses.<sup>30</sup>

As Figure 2, Figure 3, Table 1 and Table 2 demonstrate, MUN has employed or contracted an average of 7,467 people per annum over the past ten years. This level of employment increased by 21.4% over the period analyzed, rising from 6,774 personnel in 2003-04 to 8,223 personnel in 2012. The composition of

<sup>30</sup> For the purposes of this study, the direct employment levels for all campuses were available from the Human Resource Profile of the Memorial University Fact Book for various years. This information can be accessed at [http://www.mun.ca/ciap/Analysis/fact\\_book.php](http://www.mun.ca/ciap/Analysis/fact_book.php).



employees by type has remained relatively stable, with 38% being comprised of staff —20% permanent and 18% contractual; 28% of MUN’s employees were faculty and instructors — 14% permanent and 14% contractual; and the remaining 34% of employees consisted of students and staff employed by agencies such as the bookstore.

Even though approximately 7,500 people per annum were employed directly by MUN, these were not full-time-equivalent jobs. Or, more precisely, there were fewer than 7,500 person-years of direct annual employment at MUN across all of its campuses/locations.<sup>31</sup> For the purposes of this study, the full-time-equivalent employment (person-years) was derived from the number of people actually employed by applying a weight of 1.0 to permanent employees, a weight of 0.25 to contractual employees and a weight of 0.15 to students. Under this weighting scheme, a permanent employee was assumed to be equivalent to a person-year of employment, and four contractual employees were needed to be equivalent to one person-year of employment. Making these adjustments generated an average annual full-time-equivalent employment of 3,509 person-years. Interestingly, the direct employment created by MUN has grown by 20.7% over the ten-year period analyzed in this study. Specifically, the full-time-equivalent employment in 2012-13 was 3,873 person-years, 665 more than the 3,208 full-time-equivalent jobs at MUN in 2003-04.

In this study, the direct employment levels for operations and for sponsored research were derived by combining the full-time-equivalent employment levels estimated in Table 1 below with the corresponding wages and salaries available in Schedule 2 of the *Memorial University’s Financial Statements*.<sup>32</sup> For this purpose, the relevant salary information is provided in Table 3 below.

Rows 1 through 4 of Table 3 illustrate the ten-year averages for all salary expenditures and employee benefits and for those salaries and employee benefits associated with sponsored research, respectively. These averages were calculated from the Schedule 2 of *Memorial University’s Financial Statements*. Rows 5 and 6 were derived as the differences between rows 1 and 3 and rows 2 and 4, respectively. These estimates corresponded to the average annual operating salaries and employee benefits over the past ten years, net of those salaries and employee benefits associated with sponsored research paid by MUN. The average annual full-time-equivalent employment was extracted from Table 1. The implied average annual wage per full-time-equivalent employee — estimated as row 1 divided by row 7 — was \$68,785 per year. The corresponding full-time-equivalent employment for operations, net of sponsored research, was 3,206 — derived as row 5 divided by row 8. The full-time-equivalent employment for sponsored research was 303 — derived as row 3 divided by row 8.

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<sup>31</sup> A person-year of employment consists of one person working 2,000 hour per year or any combination of workers who combined hours of work constitute 2,000 hours. This can consist of one full-time-equivalent employee working 2,000 hours or 4 contractual employees, each working 500 hours per year or approximately 10 hours per week on average for 50 weeks of the year.

<sup>32</sup> This information can be accessed at [https://www.mun.ca/finance/fin\\_reports/](https://www.mun.ca/finance/fin_reports/).

Figure 2: People Employed by MUN

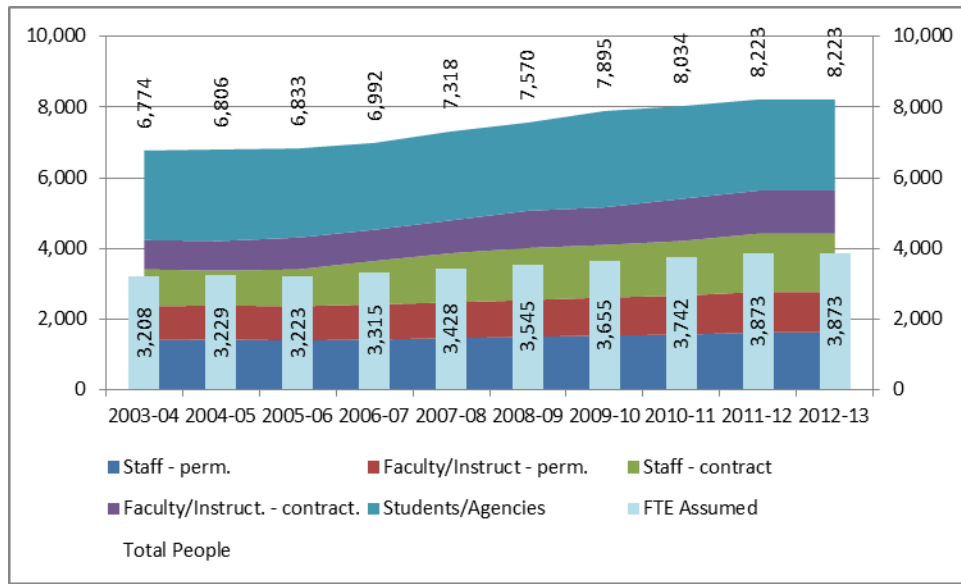
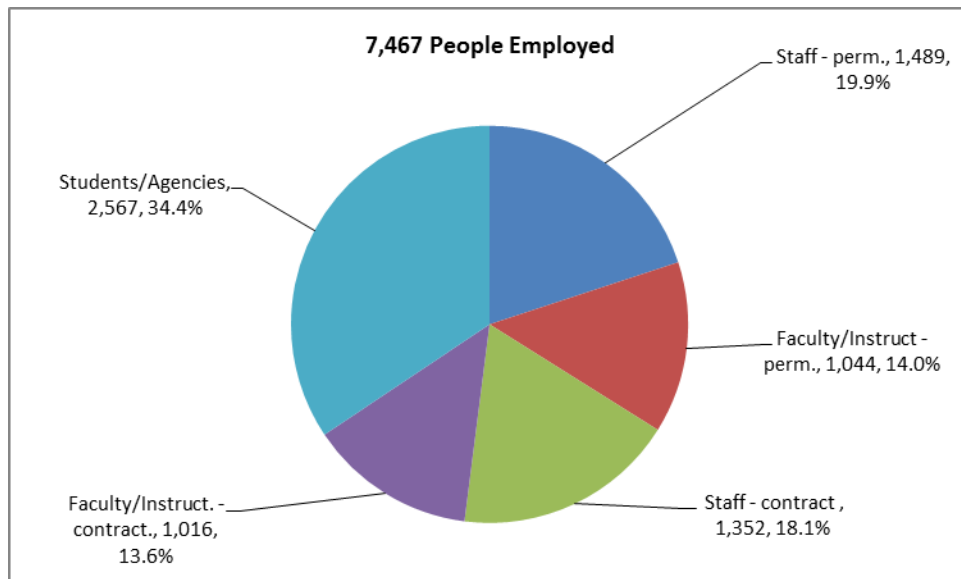


Figure 3: Average Composition of MUN's Employment by Type of Employee



**Table 1: People Employed by MUN**

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Growth	10 Year Ave.
Staff - permanent	1,395	1,417	1,388	1,417	1,456	1,490	1,532	1,554	1,618	1,618	16.0%	1,489
Faculty/Instructors - permanent	963	966	969	1,000	1,011	1,047	1,074	1,108	1,149	1,149	19.3%	1,044
Permanent (Faculty & Staff)	2,358	2,383	2,357	2,417	2,467	2,537	2,606	2,662	2,767	2,767	17.3%	2,532
Staff - contractual	1,045	986	1,046	1,227	1,397	1,474	1,492	1,548	1,652	1,652	58.1%	1,352
Faculty/Instructors - contractual	831	842	903	886	933	1,057	1,069	1,196	1,220	1,220	46.8%	1,016
Students/Agencies	2,540	2,595	2,527	2,462	2,521	2,502	2,728	2,628	2,584	2,584	1.7%	2,567
<b>Total People</b>	<b>6,774</b>	<b>6,806</b>	<b>6,833</b>	<b>6,992</b>	<b>7,318</b>	<b>7,570</b>	<b>7,895</b>	<b>8,034</b>	<b>8,223</b>	<b>8,223</b>	<b>21.4%</b>	<b>7,467</b>
<b>FTE Assumed</b>	<b>3,208</b>	<b>3,229</b>	<b>3,223</b>	<b>3,315</b>	<b>3,428</b>	<b>3,545</b>	<b>3,655</b>	<b>3,742</b>	<b>3,873</b>	<b>3,873</b>	<b>20.7%</b>	<b>3,509</b>

**Table 2: Composition of MUN's Employment**

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Ave.
Staff - permanent	20.6%	20.8%	20.3%	20.3%	19.9%	19.7%	19.4%	19.3%	19.7%	19.7%	19.9%
Faculty/Instructors - permanent	14.2%	14.2%	14.2%	14.3%	13.8%	13.8%	13.6%	13.8%	14.0%	14.0%	14.0%
Staff - contractual	15.4%	14.5%	15.3%	17.5%	19.1%	19.5%	18.9%	19.3%	20.1%	20.1%	18.1%
Faculty/Instructors - contractual	12.3%	12.4%	13.2%	12.7%	12.7%	14.0%	13.5%	14.9%	14.8%	14.8%	13.6%
Students/Agencies	37.5%	38.1%	37.0%	35.2%	34.4%	33.1%	34.6%	32.7%	31.4%	31.4%	34.4%
<b>Total People</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table 3: Direct Salaries Paid at MUN**

	Ten-Year Average (\$M)
1. Salaries – All	\$241.4
2. Employee Benefits – All	\$47.6
3. Salaries - Sponsored Research	\$20.8
4. Employee Benefits - Sponsored Research	\$3.0
5. Salaries – Operations Net of Sponsored Research	\$220.5
6. Employee Benefits – Operations Net of Sponsored Research	\$44.6
7. Full-time-equivalent Employees (derived in Table 1 above)	3,509 PY
8. Implied Average Wage Per Full-time-equivalent	\$68,785/PY
9. Full-time-equivalent Employment to Operations Net of Sponsored Research	3,206 PY
10. Full-time-equivalent Employment to Sponsored Research	303 PY

The direct full-time-equivalent operating employment, net of sponsored research, was allocated across campuses based on the share of gross operating expenditures by campus.<sup>33</sup> These calculations are provided in Table 4 below. The direct full-time-equivalent operating employment levels by campuses were calculated by using the employment information derived in Table 3 and the shares in Table 4. Similarly, direct full-time-equivalent, sponsored-research employment was allocated across campuses based on the share of external research support.<sup>34</sup> These shares are calculated in Table 5. The direct full-time-equivalent employment levels by campus and by type of activity are provided in Table 6 and are displayed in Figure 3 through Figure 6.

**Table 4: Allocation Factors for Direct Operations Employment by Campus**

	<b>Expenditure Ten Year Average (\$M)</b>	<b>Share</b>
1. Gross Operating Expenditures – All Campuses	\$306.2	100.0%
2. Gross Operating Expenditures - Marine Institute	\$34.3	11.21%
3. Gross Operating Expenditures – Grenfell campus	\$19.8	6.46%
4. Gross Operating Expenditures - Labrador Institute	\$0.6	0.18%
5. Gross Operating Expenditures – Residual (St. John's campus)	\$251.5	82.15%

**Table 5: Allocation Factors for Direct Sponsored Research Employment by Campus**

	<b>Expenditure Ten Year Average (\$M)</b>	<b>Share</b>
1. External Research Support – All Campuses	\$91.2	100.0%
2. External Research Support - Marine Institute	\$7.0	7.7%
3. External Research Support – Grenfell campus	\$0.8	0.9%
4. External Research Support - Labrador Institute	\$0	0.0%
5. External Research Support – Residual (St. John's campus)	\$83.3	91.4%

**Table 6: Person-Years of Direct Employment by Campus**

	<b>All Campuses</b>	<b>Marine Institute</b>	<b>Grenfell campus</b>	<b>Labrador Institute</b>	<b>St. John's campus</b>
1. Direct Employment - Operations (Net of Sponsored Research)	3,206	359	207	6	2,634
2. Direct Employment - Sponsored Research	303	23	3	0	277
3. Total Direct Employment	3,509	383	210	6	2,911
4. Share of Direct Employment - Operations (Net of Sponsored Research) by Campus	11.2%	6.5%	0.2%	82.1%	11.2%
5. Share of Direct Employment - Sponsored Research by Campus	7.7%	0.9%	0.0%	91.4%	7.7%
6. Share of Total Direct Employment by Campus	10.9%	6.0%	0.2%	82.9%	10.9%

<sup>33</sup> These gross operating expenditures are available from Table 18 in the *Memorial University Fact Book*.

<sup>34</sup> This was taken from Table 22 of the *Memorial University Fact Book*.

Figure 4: Average Direct Operations Employment by Campus – Including that Associated with Sponsored Research

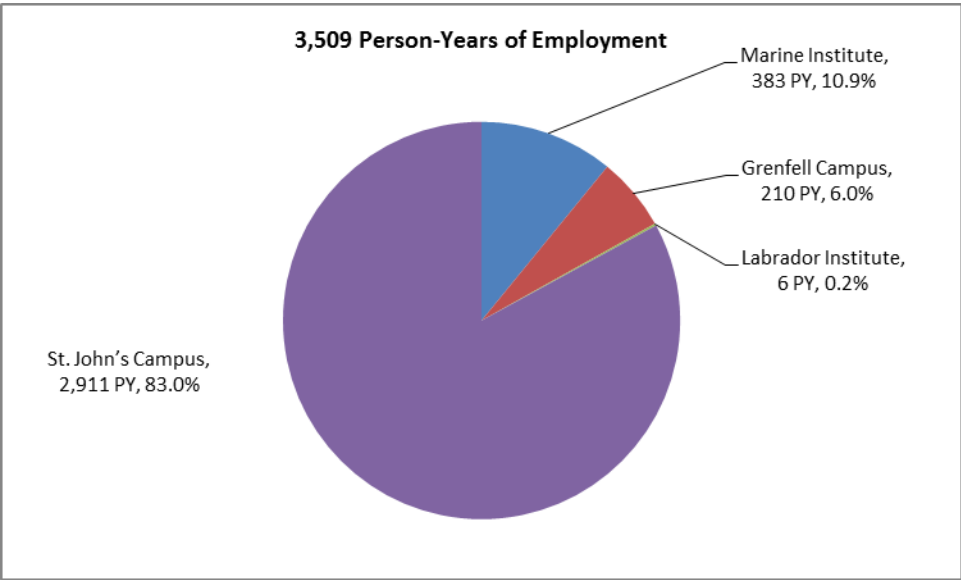


Figure 5: Average Direct Operations Employment by Campus – Excluding that Associated with Sponsored Research

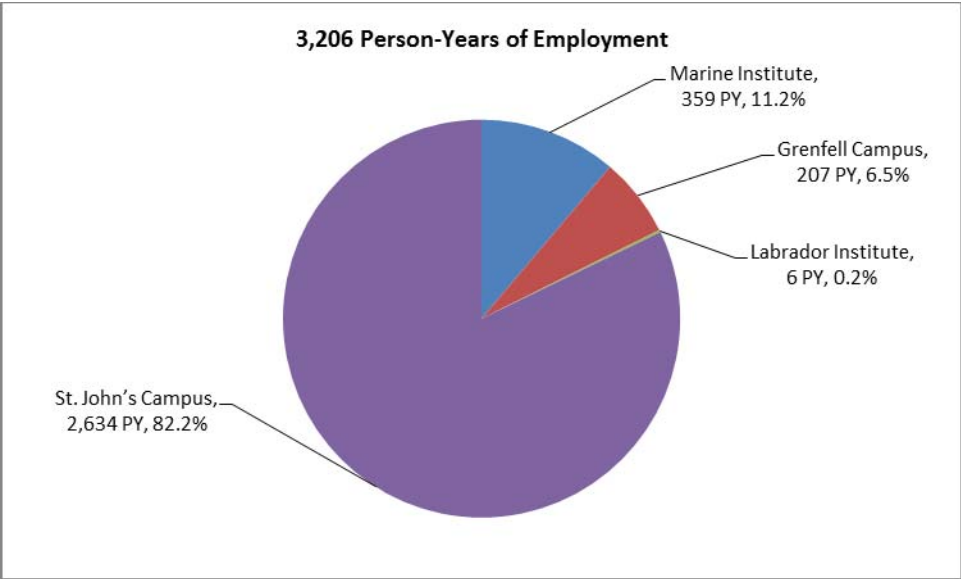
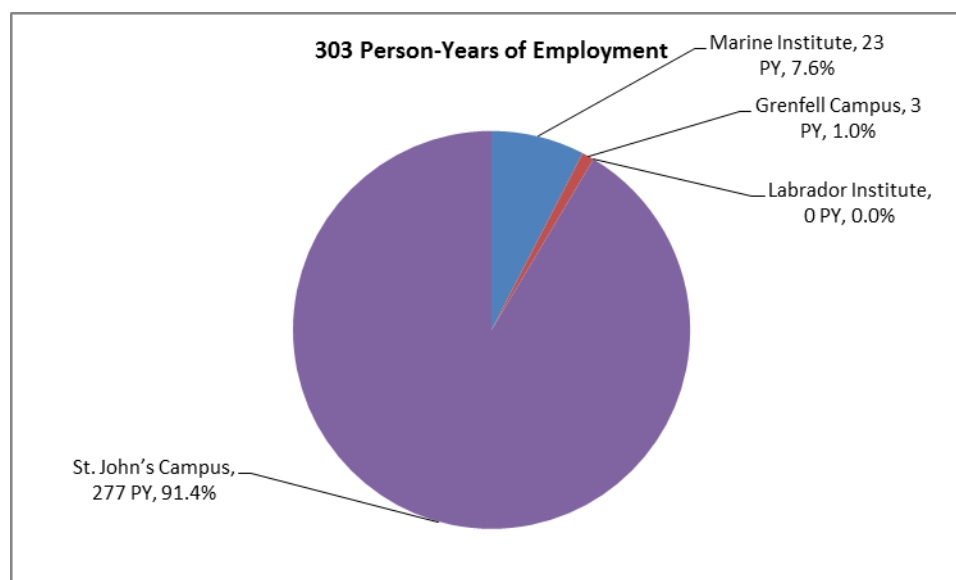


Figure 6: Average Direct Sponsored Research Employment by Campus



### 3.2 Inputs – Wages and Salaries – All Campuses

From Table 3 above, the average annual salaries and benefits paid by MUN over the past ten years were \$289 million, comprised of \$241 million in salaries and \$47 million in employee benefits. The corresponding salaries and benefits paid for operations, net of sponsored research, and for sponsored research were, respectively, \$265 million and \$24 million. The annual profile of the total salaries and benefits is shown in Table 7 and Figure 7 from 2003-04 to 2012-13. The wage bill grew from \$211 million in 2003-04 to \$399 million in 2012-13 — an increase of 89.1%. This, of course, contributed to the increased economic impact that MUN has had on the province.

The salaries and benefits were allocated across campuses using the same shares that were used to allocated direct employment across campuses. The salaries and benefits by campus employed in this report are presented in Table 8 and Figure 8 through Figure 10.

Table 7: MUN's Wages, Salaries and Benefits

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Salaries and Benefits (\$M)	\$211	\$219	\$227	\$237	\$256	\$284	\$317	\$370	\$372	\$399

**Table 8: MUN's Salaries and Benefits for Direct Operations and Sponsored Research by Campus**

	All Campuses	Marine Institute	Grenfell campus	Labrador Institute	St. John's campus
1. Salaries and Benefits - Operations (Net of Sponsored Research) (\$M)	\$265.1	\$29.7	\$17.1	\$0.5	\$217.8
2. Salaries and Benefits - Sponsored Research (\$M)	\$23.9	\$1.8	\$0.2	\$0	\$21.8
3. Total Salaries and Benefits (\$M)	\$289.0	\$31.6	\$17.3	\$0.5	\$239.6
4. Share of Salaries and Benefits - Operations (Net of Sponsored Research) by Campus	100.0%	11.2%	6.5%	0.2%	82.1%
5. Share of Salaries and Benefits - Sponsored Research by Campus	100.0%	7.7%	0.9%	0.0%	91.4%
6. Share of Total Salaries and Benefits by Campus	100.0%	10.9%	6.0%	0.2%	82.9%

**Figure 7: Wages, Salaries and Benefits Paid at NL**

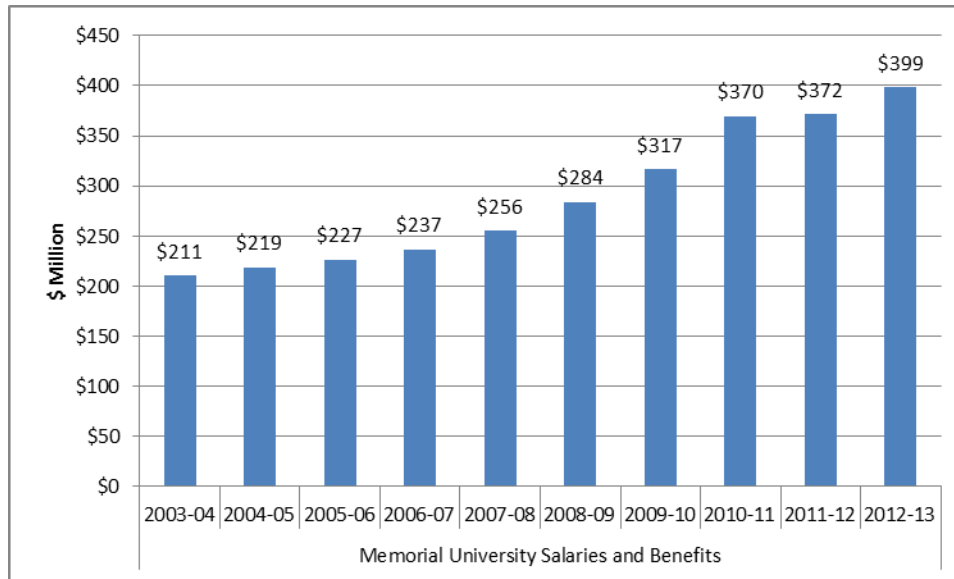


Figure 8: Average Operations Salaries and Benefits by Campus – Including Sponsored Research

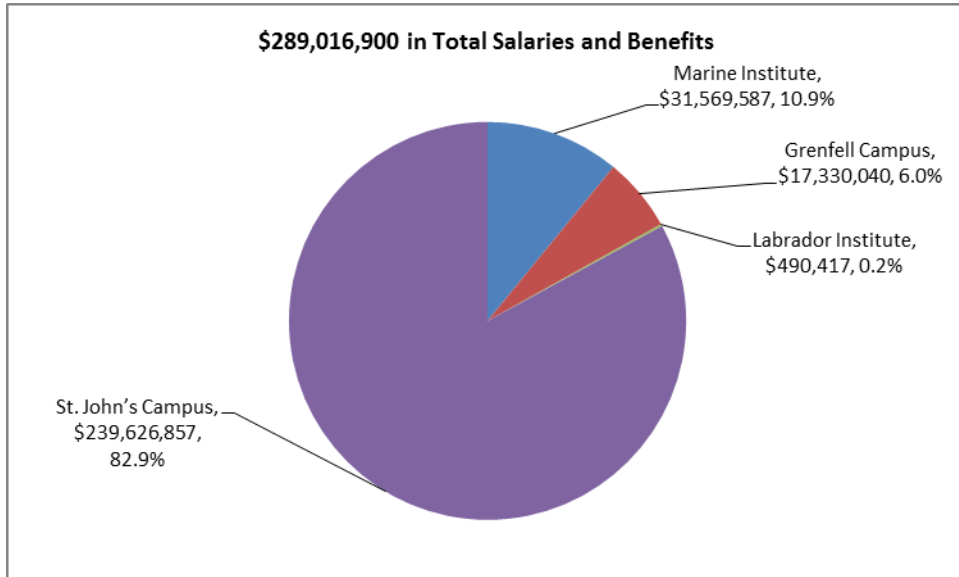


Figure 9: Average Operations Salaries and Benefits by Campus – Excluding Sponsored Research

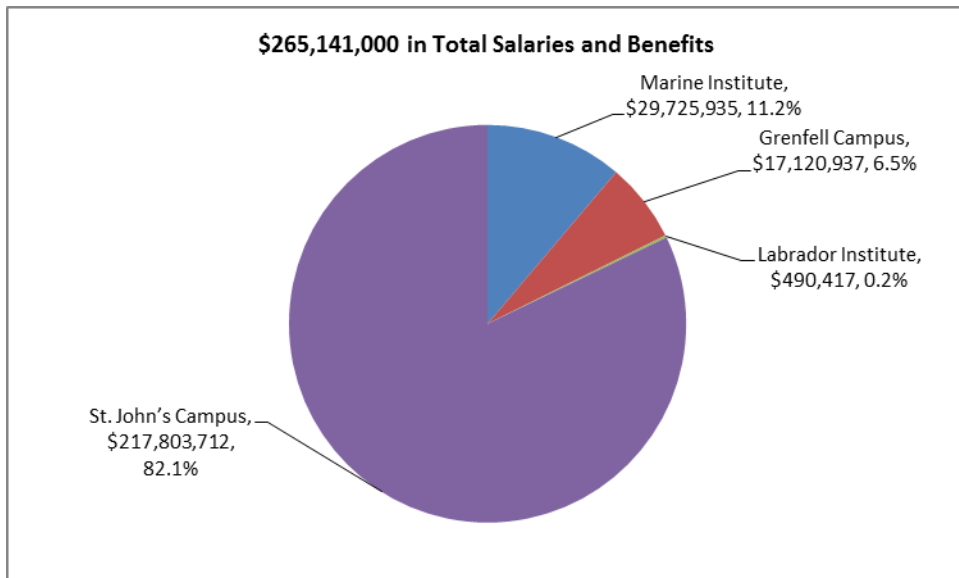
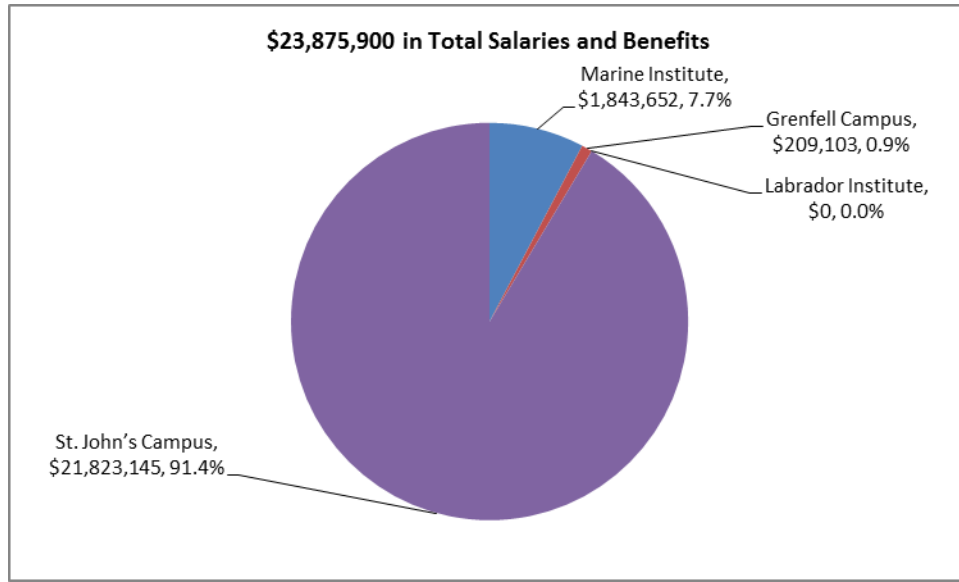




Figure 10: Average Sponsored Research Salaries and Benefits by Campus



### 3.3 Inputs - Operations Expenditures<sup>35</sup> – All Campuses

The operating expenditures — net of scholarship and sponsored research, which are analyzed separately — have averaged \$381 million per year from 2003-04 to 2012-13 (Figure 11). Over this time period operating expenditures, net of internal recoveries, have grown by nearly 92%, from \$273 million in 2003-04 to nearly \$519 million in 2012-13. As shown in Figure 12, salaries and benefits accounted for 70% of the operations expenditures, followed by materials and services with 8%; utilities represented 7%, repairs and maintenance and external/professional services each represented 5%; and the residual 5% emanated from travel (2%), equipment rentals (1%) and other (2%). The allocation across campus was determined by using the share factors from Table 4.

Table 9: MUN's Operations Expenditures

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Ave.
Operating Expenditures (Net of Sponsored Research) – Unadj.	\$261.3	\$271.0	\$289.2	\$306.0	\$331.4	\$365.6	\$395.4	\$463.5	\$473.8	\$500.6	\$365.8
Scholarships	\$8.6	\$9.2	\$9.3	\$9.9	\$11.8	\$13.3	\$12.9	\$12.3	\$13.9	\$15.1	\$11.6
Internal Recoveries	-\$3.1	-\$2.8	-\$4.7	-\$4.7	-\$4.1	-\$4.1	-\$3.7	-\$5.0	-\$4.3	-\$2.8	-\$3.9
Operating Expenditures (Net of Sponsored Research) - Adjusted	\$273.0	\$283.0	\$303.1	\$320.6	\$347.4	\$383.1	\$412.0	\$480.8	\$492.0	\$518.5	\$381.3

<sup>35</sup> These operations expenditures are net of scholarships and sponsored research.

Figure 11: MUN's Operations Expenditures

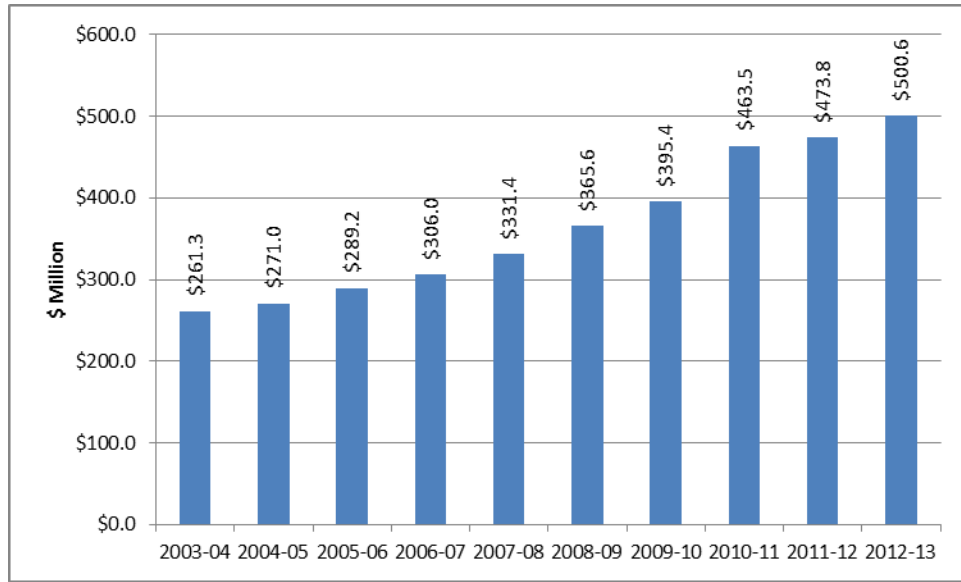
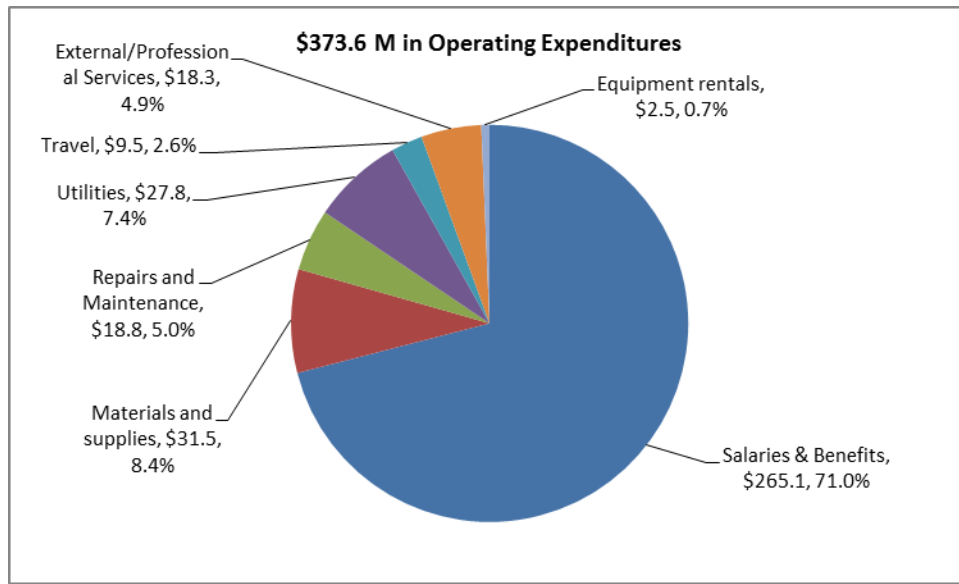


Table 10: MUN's Operations Expenditure by Campus and Type of Expenditure (\$M)

	Marine Institute	Grenfell Campus	St. John's campus	Labrador Institute	All Campuses
Salaries & Benefits	\$29.73	\$17.12	\$217.80	\$0.49	\$265.14
Materials and supplies	\$3.53	\$2.03	\$25.88	\$0.06	\$31.51
Repairs and Maintenance	\$2.11	\$1.21	\$15.44	\$0.04	\$18.79
Utilities	\$3.12	\$1.79	\$22.83	\$0.05	\$27.79
Travel	\$1.07	\$0.62	\$7.83	\$0.02	\$9.53
External/Professional Services	\$2.05	\$1.18	\$15.05	\$0.03	\$18.32
Equipment rentals	\$0.28	\$0.16	\$2.06	\$0.01	\$2.51
Other	\$0.87	\$0.50	\$6.38	\$0.01	\$7.76
<b>Subtotal Expenses</b>	<b>\$42.76</b>	<b>\$24.63</b>	<b>\$313.27</b>	<b>\$0.71</b>	<b>\$381.35</b>

Figure 12: MUN's Operations Expenditure by Type of Expenditure



### 3.4 Inputs - Sponsored Research

As shown in Table 11 and Figure 13, MUN's annual level of sponsored research, adjusted for internal recoveries, averaged \$54 million. There has been a consistent growth in sponsored research over the past 10 years. From 2003-04 (\$44.5 million), sponsored research expenditures, adjusted for internal recoveries, grew by 41.4% to \$59.2 million in 2012-13. In order to avoid double counting, scholarships have been deducted from sponsored research expenditures. This adjustment was required because students' expenditures were analyzed separately elsewhere in this report, and the effects of scholarships were accounted for through the students' expenditures.

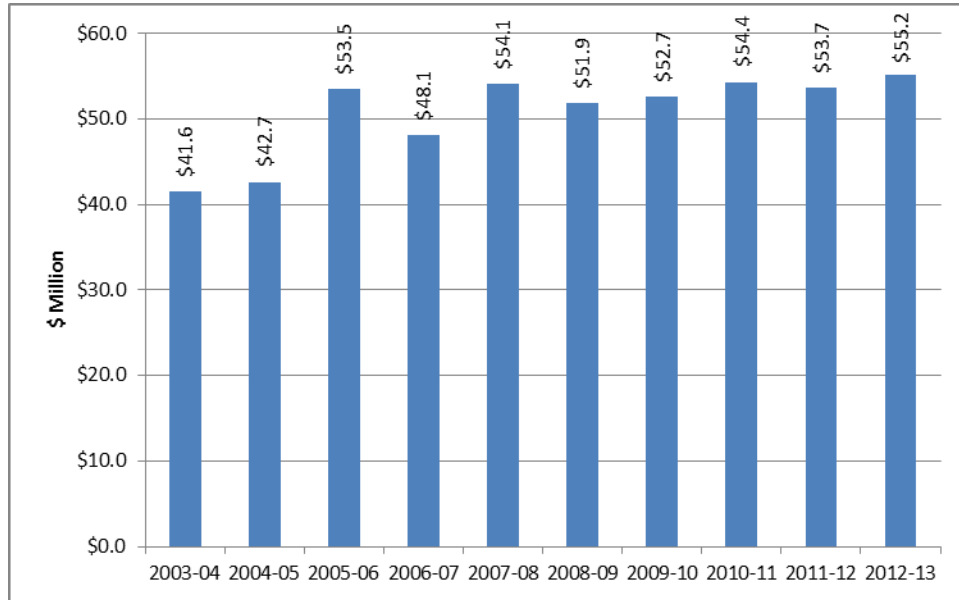
As well, since the sponsored research data were taken from *Memorial University's Financial Statements*, internal recoveries have already been netted out of this data. By way of illustration, if a computer were purchased from an internal agency within the university by another entity from within the university, this transaction would have shown up as a cost to one group and a revenue source to the other agency. The combined effects of these transactions would have been reflected as a net of zero in the financial statements, even though a computer was bought and created economic activity. On average, \$3.1 million in internal recoveries were added back into sponsored research to accurately reflect the economic impacts associated with this category.

Table 12 and Figure 14 profile the composition of the categories to which the sponsored research expenditures were allocated. Wages and salaries represented 44% of the total, followed by 23% for materials and supplies, 13% for external and professional services, 8% for travel, and the residual 12% for other categories such as equipment rentals, repair and maintenance, etc. The allocation across campus was determined by using the share factors from Table 5.

**Table 11: Annual and Average Sponsored Research Undertaken at MUN – All Campuses (\$M)**

	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>Ave</b>
Sponsored Research	\$41.6	\$42.7	\$53.5	\$48.1	\$54.1	\$51.9	\$52.7	\$54.4	\$53.7	\$55.2	\$50.8
Scholarships	\$5.7	\$6.2	\$7.0	\$7.8	\$8.0	\$8.6	\$10.0	\$10.3	\$11.2	\$11.7	\$8.6
Internal recoveries	\$2.7	\$3.0	\$1.7	\$5.2	\$5.5	\$6.0	\$6.8	\$7.0	\$7.5	\$7.8	\$5.3
Adjusted Sponsored Research	\$44.5	\$45.8	\$58.8	\$50.7	\$56.6	\$54.5	\$55.9	\$57.6	\$57.3	\$59.2	\$54.1

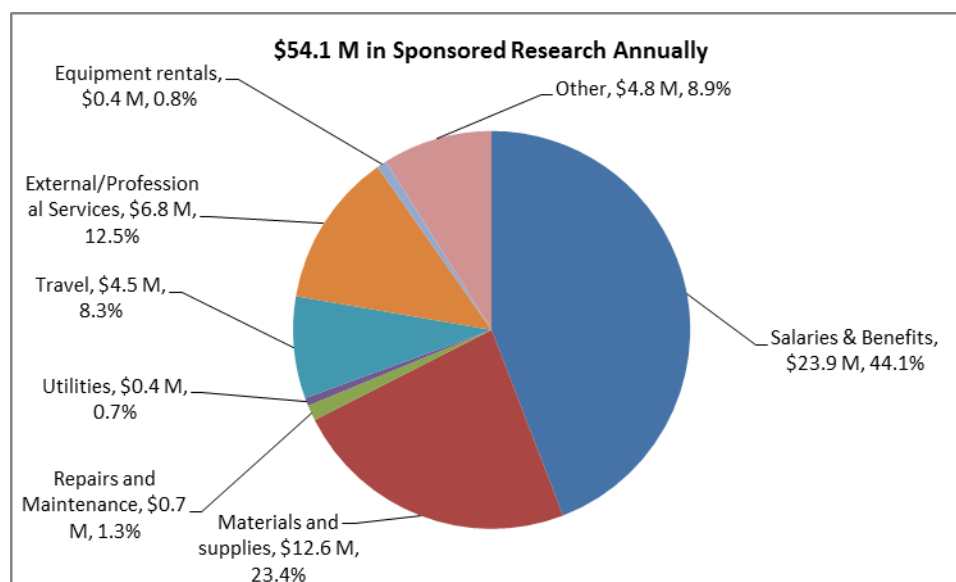
**Figure 13: Annual Sponsored Research Undertaken at MUN – All Campuses**



**Table 12: Average Annual Sponsored Research by Type of Expenditure – All Campuses (\$M)**

	<b>Marine Institute</b>	<b>Grenfell Campus</b>	<b>St. John's campus</b>	<b>All Campuses</b>
Salaries & Benefits	\$1.84	\$0.21	\$21.82	\$23.88
Materials and supplies	\$0.98	\$0.11	\$11.56	\$12.64
Repairs and Maintenance	\$0.05	\$0.01	\$0.62	\$0.68
Utilities	\$0.03	\$0.003	\$0.32	\$0.35
Travel	\$0.35	\$0.04	\$4.10	\$4.48
External/Professional Services	\$0.52	\$0.06	\$6.20	\$6.78
Equipment rentals	\$0.03	\$0.004	\$0.39	\$0.43
Other	\$0.37	\$0.04	\$4.42	\$4.84
Subtotal expenses	<b>\$4.18</b>	<b>\$0.47</b>	<b>\$49.44</b>	<b>\$54.09</b>

Figure 14: Average Annual Sponsored Research by Type of Expenditure – All Campuses



### 3.5 Inputs - Students

Another source of economic impact associated with MUN was manifested through its students in two distinct ways. First, while students attended university, they purchased goods and services such as rent, food, computers, etc. Second, when the students graduated, some were employed within NL. The education process enabled them to be more productive than otherwise and to earn a higher income. In other words, there was an education premium associated with their degrees. This higher income translated into increased demands for goods and services, such as housing, that have had ripple effects throughout the economy in terms of their economic impacts. Each of these impacts is addressed in more detail below.

#### 3.5.1 Inputs - Students - Enrollment

According to Table 1 of the *Memorial University Fact Book*, and as shown in Table 13 through Table 15 and Figure 15 through Figure 17, MUN has had a combined fall enrollment of 185,160 students over the past 10 years across all of its campuses. This corresponded to an annual average enrollment of 18,516 students.

MUN's enrollment consisted of 16,093 students per year at the St. John's campus; 1,119 students per year at the Marine Institute; and 1,305 students per year at the Grenfell campus. Using fall semester totals, the St. John's campus has experienced a growth in enrollment of 0.3% over the 10-year period (rising from 16,104 in 2004 to 16,145 in 2013). This corresponded to a slightly larger increase in graduate enrollment, with an additional 1,303 graduate students enrolled and a decrease of approximately 1,262 undergraduate students. The Marine Institute and the Grenfell campus experienced an increase in fall enrollment over this period by 1.2% and 1.3%, respectively. At the Marine Institute, there was an increase in the undergraduate enrollment of 54 students plus the increase of 110 graduate students and a decrease of 150 students in the diploma/certificate program.

As well, it is interesting to note that enrollment of full-time students had fallen by 24, but the enrollment of part-time students had increased by 188 over the period 2004 to 2013. Enrollment in the diploma/certificate programs fell by 150 people. Hence, the overall enrollment at the Marine Institute increased by 14 students. The undergraduate enrollment at Grenfell campus remained relatively constant, while graduate enrollment increased slightly.

**Table 13: Enrollment by Type of Student - St. John's campus**

	<b>FT UG</b>	<b>PT UG</b>	<b>FT Grad</b>	<b>PT Grad</b>	<b>Post Grad</b>	<b>Total</b>
<b>2004</b>	11,814	1,937	1,299	870	184	<b>16,104</b>
<b>2005</b>	11,793	1,829	1,365	909	181	<b>16,077</b>
<b>2006</b>	11,458	1,892	1,365	890	204	<b>15,809</b>
<b>2007</b>	11,350	1,842	1,397	891	207	<b>15,687</b>
<b>2008</b>	11,012	1,913	1,399	994	211	<b>15,529</b>
<b>2009</b>	11,167	2,008	1,556	1098	226	<b>16,055</b>
<b>2010</b>	11,236	2,018	1,668	1248	222	<b>16,392</b>
<b>2011</b>	11,094	2,056	1,747	1292	242	<b>16,431</b>
<b>2012</b>	11,212	1,953	1,911	1375	245	<b>16,696</b>
<b>2013</b>	10,723	1,766	2,104	1318	234	<b>16,145</b>
<b>Sum</b>	<b>112,859</b>	<b>19,214</b>	<b>15,811</b>	<b>10,885</b>	<b>2,156</b>	<b>160,925</b>
<b>Average</b>	<b>11,286</b>	<b>1,921</b>	<b>1,581</b>	<b>1,089</b>	<b>216</b>	<b>16,093</b>
<b>Growth</b>	<b>-9.2%</b>	<b>-8.8%</b>	<b>62.0%</b>	<b>51.5%</b>	<b>27.2%</b>	<b>0.3%</b>

**Table 14: Enrollment by Type of Student – Marine Institute**

	<b>FT UG</b>	<b>PT UG</b>	<b>FT Grad</b>	<b>PT Grad</b>	<b>Dip/Cert.</b>	<b>Total</b>
<b>2004</b>	86	232	9	9	821	<b>1,157</b>
<b>2005</b>	83	237	10	11	819	<b>1,160</b>
<b>2006</b>	72	265	8	9	744	<b>1,098</b>
<b>2007</b>	62	250	6	8	670	<b>996</b>
<b>2008</b>	47	238	11	11	688	<b>995</b>
<b>2009</b>	50	254	11	8	774	<b>1,097</b>
<b>2010</b>	49	271	9	27	754	<b>1,110</b>
<b>2011</b>	83	319	24	56	769	<b>1,251</b>
<b>2012</b>	66	312	22	70	682	<b>1,152</b>
<b>2013</b>	45	327	26	102	671	<b>1,171</b>
<b>Sum</b>	<b>643</b>	<b>2,705</b>	<b>136</b>	<b>311</b>	<b>7,392</b>	<b>11,187</b>
<b>Average</b>	<b>64</b>	<b>271</b>	<b>14</b>	<b>31</b>	<b>739</b>	<b>1,119</b>
<b>Growth</b>	<b>-47.7%</b>	<b>40.9%</b>	<b>188.9%</b>	<b>1033.3%</b>	<b>-18.3%</b>	<b>1.2%</b>

Table 15: Enrollment by Type of Student - Grenfell campus

	FT UG	PT UG	FT Grad	PT Grad	Total
2004	1,292	53	0	0	1,345
2005	1,306	79	0	0	1,385
2006	1,279	67	0	0	1,346
2007	1,222	63	0	0	1,285
2008	1,210	57	0	0	1,267
2009	1,165	61	0	0	1,226
2010	1,181	63	0	0	1,244
2011	1,232	41	0	0	1,273
2012	1,252	55	7	1	1,315
2013	1,277	70	12	3	1,362
Sum	12,416	609	19	4	13,048
Average	1,242	61	2	0	1,305
Growth	-1.2%	32.1%			1.3%

Figure 15: Fall Semester Enrollment at the St. John's Campus by Type of Enrollment

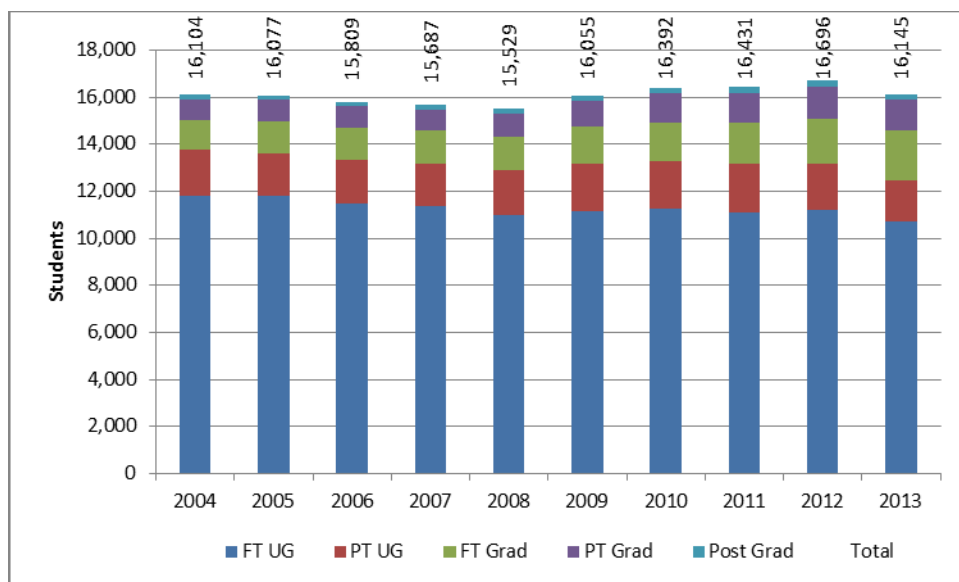


Figure 16: Fall Semester Enrollment at the Marine Institute by Type of Enrollment

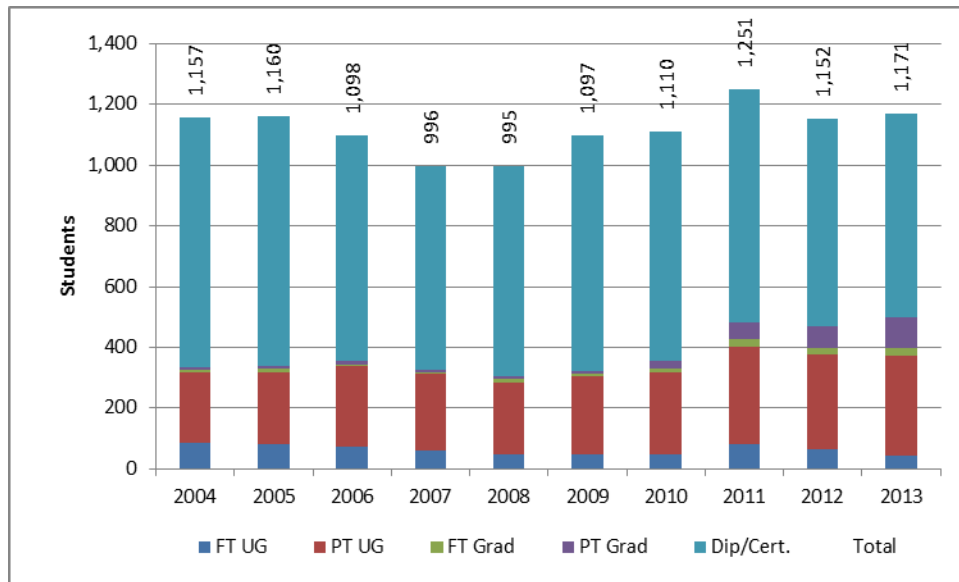
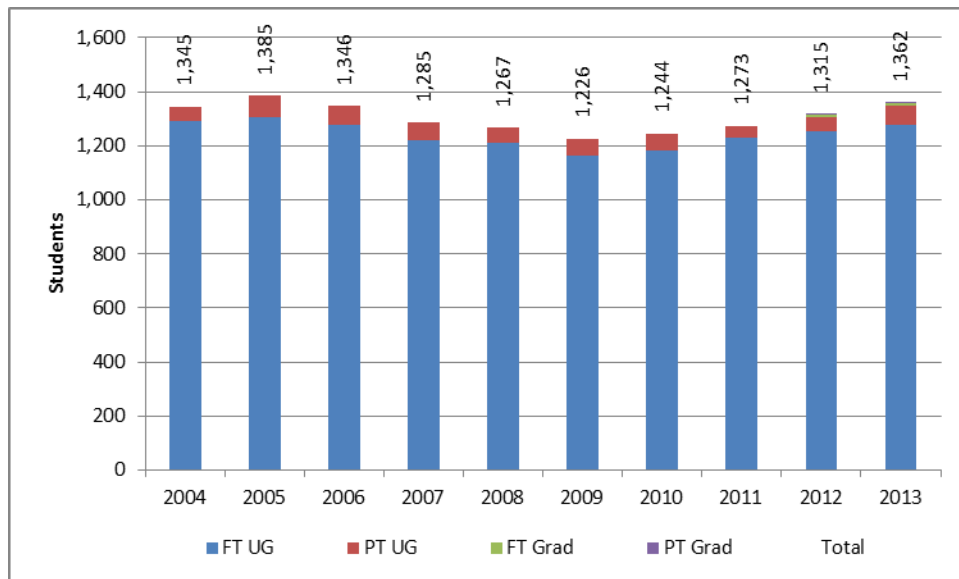


Figure 17: Fall Semester Enrollment at the Grenfell campus by Type of Enrollment



### 3.5.2 Inputs - Students – Original Locations of MUN's Students

Students' expenditures were one of the avenues through which MUN created economic impacts. It is important to recognize that students who lived at home and commuted to the university campus have had different expenditure patterns than those who moved to the community to attend the university. As such, it is important to distinguish among students according to the geographic locations from which they were attracted to MUN. In addition, it is also important to distinguish between on-campus students and off-campus students (the latter students were correspondence and distance students) as their expenditure profiles would have been different. Different expenditure patterns will have had different implications for the economic impacts that were traced to the activities of MUN.



Table 16 through Table 18, Figure 18 and Figure 19 profile the original residences of students who have attended MUN over the period 2004 to 2013.<sup>36</sup> On average, 42.4% of the students enrolled at MUN did so from within commuting distance of St. John's – that is, 7,424 of the 17,507 total enrollments. As well, 9.9% of the students enrolled at MUN were from within commuting distance of Corner Brook, with 25.5% of students having had a permanent residence from elsewhere in province, 15.5% of students resided in another Canadian province or territory, and 6.7% originated in countries other than Canada.

Interestingly, the shares of international students and out-of-province students have been rising, while the proportion of students from other parts of NL has been falling. For example, in 2013, international students comprised 10.5% of MUN's enrollment, which was significantly above the period average of 6.7%, and the proportion of students attending MUN from outside of the Corner Brook and St. John's catchment areas was 20.4% in 2013, down from the ten-year average of 25.5%.

**Table 16: Geographical Breakdown of MUN's Students**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	sum	Average
St. John's	3,543	4,363	4,266	4,240	4,124	4,428	4,518	4,316	4,339	4,172	42,309	4,231
Mount Pearl	274	1,233	1,165	1,146	1,060	1,077	1,074	1,040	1,014	928	10,011	1,001
Goulds	325	264	241	249	251	235	262	237	247	223	2,534	253
Torbay	164	348	360	346	345	368	386	408	425	399	3,549	355
Paradise	1,061	510	476	520	548	562	579	601	612	590	6,059	606
Portugal Cove-St. Philips	207	206	202	227	213	236	235	240	242	241	2,249	225
Conception Bay South	504	689	660	653	619	642	641	664	678	635	6,385	639
Carbonear	114	114	111	118	112	120	116	122	100	115	1,142	114
<b>subtotal St. John's Area</b>	<b>6,192</b>	<b>7,727</b>	<b>7,481</b>	<b>7,499</b>	<b>7,272</b>	<b>7,668</b>	<b>7,811</b>	<b>7,628</b>	<b>7,657</b>	<b>7,303</b>	<b>74,238</b>	<b>7,424</b>
Stephenville Area	113	178	175	169	163	163	178	182	171	169	1,661	166
Stephenville	455	178	170	147	137	160	153	154	171	142	1,867	187
Corner Brook	181	186	167	182	160	143	158	162	163	135	1,637	164
Corner Brook Area	137	692	695	691	663	668	701	731	754	744	6,476	648
Deer Lake	176	128	117	116	112	112	118	122	109	95	1,205	121
Deer Lake Area	599	512	462	436	424	402	394	409	416	396	4,450	445
<b>subtotal Corner Brook Area</b>	<b>1,661</b>	<b>1,874</b>	<b>1,786</b>	<b>1,741</b>	<b>1,659</b>	<b>1,648</b>	<b>1,702</b>	<b>1,760</b>	<b>1,784</b>	<b>1,681</b>	<b>17,296</b>	<b>1,730</b>
Subtotal Other NL	6,975	4,896	4,802	4,269	4,161	4,058	3,963	3,937	3,890	3,617	44,568	4,457
NL Students	14,828	14,497	14,069	13,509	13,092	13,374	13,476	13,325	13,331	12,601	136,102	13,610
Out of Province Students	1,797	2,011	2,373	2,602	2,852	2,861	3,021	3,196	3,211	3,300	27,224	2,722
International Students	689	864	864	978	948	1,143	1,273	1,423	1,694	1,872	11,748	1,175
<b>Total Students</b>	<b>17,314</b>	<b>17,372</b>	<b>17,306</b>	<b>17,089</b>	<b>16,892</b>	<b>17,378</b>	<b>17,770</b>	<b>17,944</b>	<b>18,236</b>	<b>17,773</b>	<b>175,074</b>	<b>17,507</b>

<sup>36</sup> The original source of this information is Table 12 of the *Memorial University Fact Book*, for various years.

Table 17: Grouped Geographical Breakdown of MUN's Students

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Sum	Average
St. John's Area	6,192	7,727	7,481	7,499	7,272	7,668	7,811	7,628	7,657	7,303	<b>74,238</b>	7,424
Corner Brook Area	1,661	1,874	1,786	1,741	1,659	1,648	1,702	1,760	1,784	1,681	<b>17,296</b>	1,730
Other NL	6,975	4,896	4,802	4,269	4,161	4,058	3,963	3,937	3,890	3,617	<b>44,568</b>	4,457
Out of Province	1797	2011	2373	2602	2852	2861	3021	3196	3211	3300	<b>27224</b>	2722
International Students	689	864	864	978	948	1143	1273	1423	1694	1872	<b>11748</b>	1175
<b>Total Students</b>	<b>17,314</b>	<b>17,372</b>	<b>17,306</b>	<b>17,089</b>	<b>16,892</b>	<b>17,378</b>	<b>17,770</b>	<b>17,944</b>	<b>18,236</b>	<b>17,773</b>	<b>175,074</b>	<b>17,508</b>

Table 18: Geographical Shares of MUN's Students

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
St. John's Area	35.8%	44.5%	43.2%	43.9%	43.0%	44.1%	44.0%	42.5%	42.0%	41.1%	42.4%
Corner Brook Area	9.6%	10.8%	10.3%	10.2%	9.8%	9.5%	9.6%	9.8%	9.8%	9.5%	9.9%
Other NL	40.3%	28.2%	27.7%	25.0%	24.6%	23.4%	22.3%	21.9%	21.3%	20.4%	25.5%
Out of Province	10.4%	11.6%	13.7%	15.2%	16.9%	16.5%	17.0%	17.8%	17.6%	18.6%	15.5%
International Students	4.0%	5.0%	5.0%	5.7%	5.6%	6.6%	7.2%	7.9%	9.3%	10.5%	6.7%
<b>Total Students</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Figure 18: Grouped Geographical Breakdown of MUN's Students

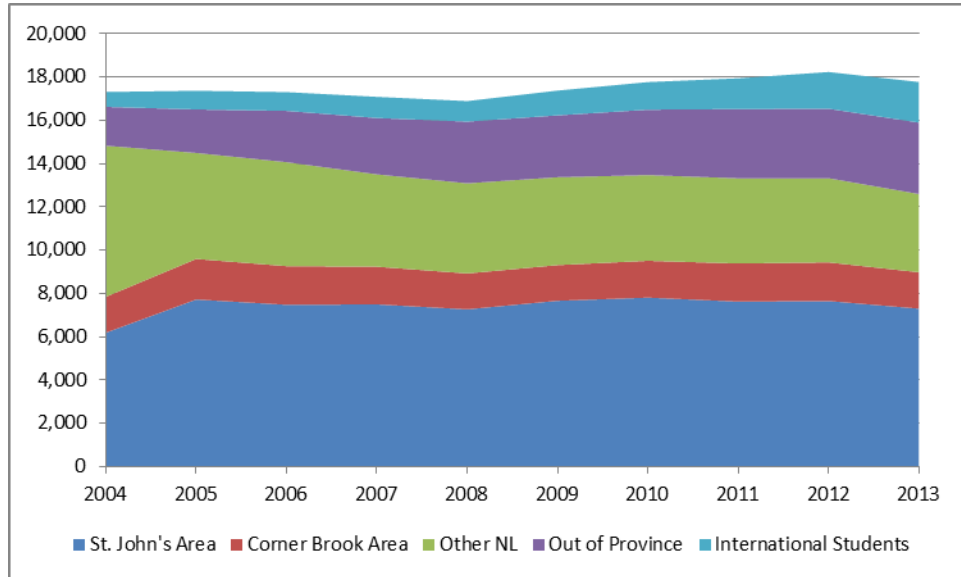
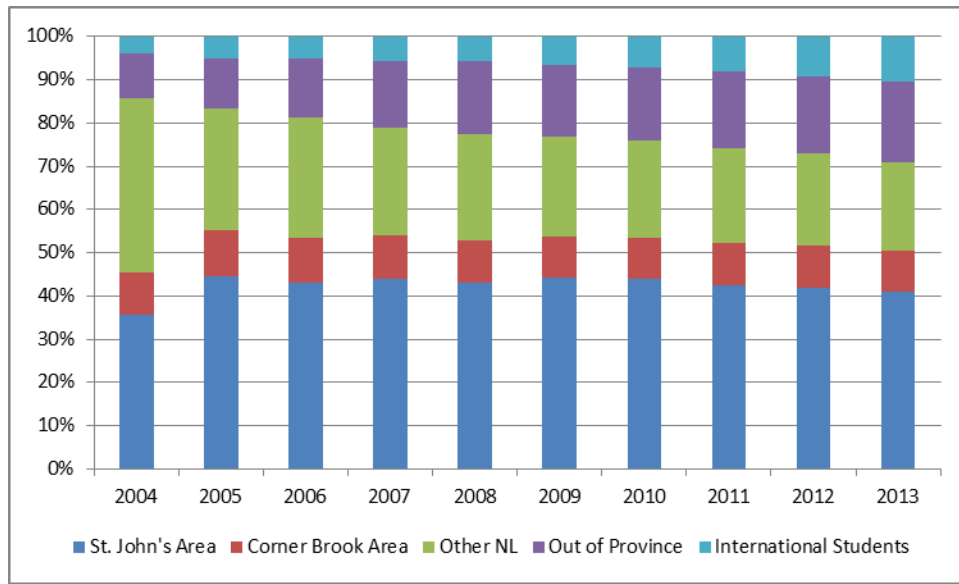


Figure 19: Geographical Shares of MUN's Students



### 3.6 Inputs – Students' Expenditures

There were no data collected by MUN on students' expenditures. Consequently, this important source of economic impact had to be estimated. It is important to appreciate that the absence of this kind of data from official sources is consistent with the experience of economic impact studies undertaken for other universities.<sup>37</sup>

The first step was to determine the number of students who were attending MUN and who were likely to be living at home or renting in the community. Based on the information presented in Table 18, it was estimated that 42.4% of the students attending the St. John's campuses were from the St. John's catchment area. It was assumed that they would not likely be renting. Based on a recent survey undertaken for the Grenfell campus, it was assumed that 47.0% of students attending the Grenfell campus were from the Corner Brook catchment area.<sup>38</sup> Hereafter, in this current analysis, this student survey will be referred to as the Grenfell student survey.

Table 19 estimates the number of students who were probably renters. Using these estimates, 42.4% of students attending the St. John's campuses were assumed to live in the St. John's catchment area. They were unlikely to be renters. Likewise, 47.0% of students attending the Grenfell campus were assumed to be from the local catchment area and assumed not to be renters for the purpose of this study.

<sup>37</sup> See, Sudmant, W., 2009, *The Economics Impact of the University of British Columbia*, p.11 <http://www.pair.ubc.ca/reports/EconomicImpact2009.pdf> for example. That study documents the steps that he had to take to estimate students' spending at the University of British Columbia.

<sup>38</sup> The source of the survey was ACOA, "The Role of Post-Secondary Education in the Corner Brook Economy," p. iii, <http://www.cornerbrook.com/images/Business/Impact%20Analysis%20of%20Post%20Secondary%20Education%20in%20Corner%20Brook%20Final%20Report%20June%202012%20%202012.pdf>. This survey found that 47% of Grenfell students were from Corner Brook and surrounding area, while 43% of students were from other parts of Newfoundland and Labrador, 9% of students were from outside of the province and 1% of the students were international.

Students living in residence have been excluded from this analysis because their expenditures were already taken into account through MUN's operating expenditures, analyzed separately in an earlier section. As well, part-time students and off-campus students were assumed to be either living at home or renting. In other words, their rental expenditures would not be incremental, as they would be renting whether they were attending MUN part-time or not. As illustrated in Table 19, for all campuses, it was estimated that, on an annual basis, 7,192 students would have rented in the communities in which the campus was located — comprised of 6,091 students attending the St. John's campus (5,823) and the Centre for Nursing Studies (268), 471 students attending the Marine Institute, and 518 students attending Grenfell campus plus 112 students enrolled in Western Nursing.<sup>39</sup>

**Table 19: Students Living at Home versus Renting and Associated Expenditures**

	All Campuses	St. John's ON-Campus	St. John's Off-Campus	Centre of Nursing Studies	Marine Institute	Grenfell campus	Western Nursing
Full-time Undergraduates	12,592	10,680	141	465	64	1,026	216
Part-time-time Undergraduates	2,253	740	1,165	17	271	56	5
Full-time Graduate students	1,597	1,581	0	0	14	2	0
Part-time-time Graduate Students	1,120	1,089	0	0	31	0	0
Post-Grad Medicine	216	216	0	0	0	0	0
Diplomas and Certificates	739	0	0	0	739	0	0
All Students	18,516	14,305	1,306	481	1,119	1,084	221
Excluding Living at Home	6,447	5,291	0	197	346	510	104
Excluding Living in Residence	1,363	1,363	0	0	0	0	0
Excluding part-time	3,514	1,828	1,306	17	302	56	5
Students who rent in community	7,192	5,823	0	268	471	518	112

As shown in Table 20, Figure 20 and Figure 21 below, the rental expenditures for the St. John's area and Corner Brook were based on the average rent for one-bedroom units during the past ten years. These data were available from Statistics Canada. In estimating the students' expenditures, it was assumed that those who rent incurred a monthly rent of \$599 for the St. John's area and \$456 per month for the Corner Brook area. The Grenfell student survey assessed the expenditure patterns of students attending Grenfell campus; the relevant results of that survey are provided in Table 21. For students who were from the St. John's catchment area, no rent or room and board was assumed, but for the students attending Grenfell campus, \$183 per month was assumed, based on the results of the 2012 Grenfell student survey.

The expenditures by students who were from the catchment area were assumed to be \$118 per month on groceries and \$34 per month on restaurants. These values were taken directly from the Grenfell student survey. The students outside of the catchment area were assumed to spend \$2,800 on food. This estimate was taken from the cost of living statistics provided on MUN's website, which indicated

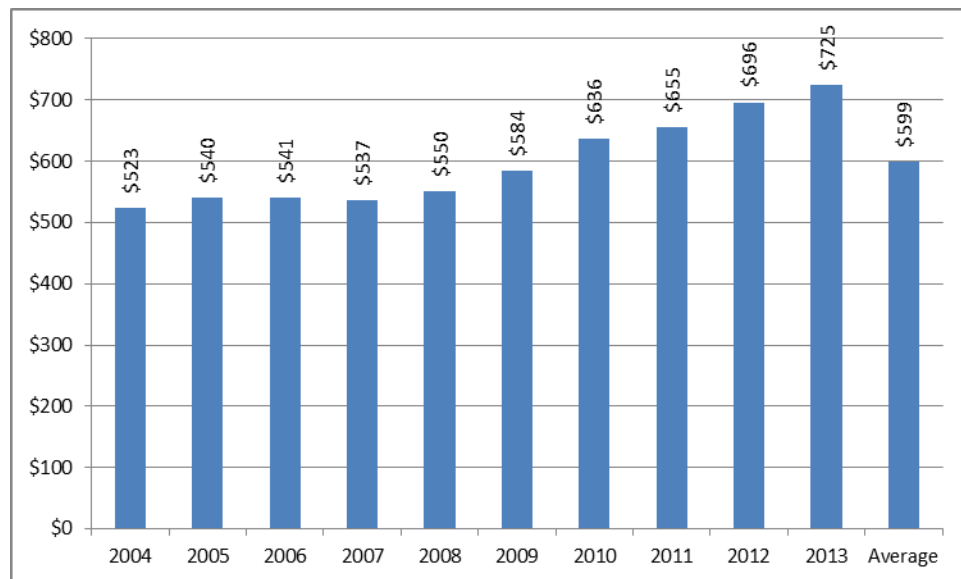
<sup>39</sup> The Centre for Nursing Studies is considered as part of the St. John's campus for this study and Western Nursing is considered part of the Grenfell campus.

that students would need to budget \$2,800 for food.<sup>40</sup> Converting this estimate into its monthly equivalent implied a monthly expenditure on food of \$233.33. Based on the Grenfell student survey, 76.47% of this food budget went to groceries and 23.53% was spent on restaurants.

**Table 20: Average Monthly Rent for a One-Bedroom Apartment in St. John's and Corner Brook**

	Average Monthly Rent in St. John's for One-Bedroom Apartment (CANSIM v3822964)	Average Monthly Rent in Corner Brook for One-Bedroom Apartment (CANSIM v3823029 )
2004	\$523	\$390
2005	\$540	\$394
2006	\$541	\$409
2007	\$537	\$419
2008	\$550	\$427
2009	\$584	\$464
2010	\$636	\$483
2011	\$655	\$503
2012	\$696	\$521
2013	\$725	\$551
Average	<b>\$599</b>	<b>\$456</b>

**Figure 20: Monthly Rent for a One-Bedroom Apartment in St. John's**



<sup>40</sup> [http://www.mun.ca/become/graduate/fees\\_funding/cost\\_of\\_living.php](http://www.mun.ca/become/graduate/fees_funding/cost_of_living.php)

Figure 21: Monthly Rent for a One-Bedroom Apartment in Corner Brook

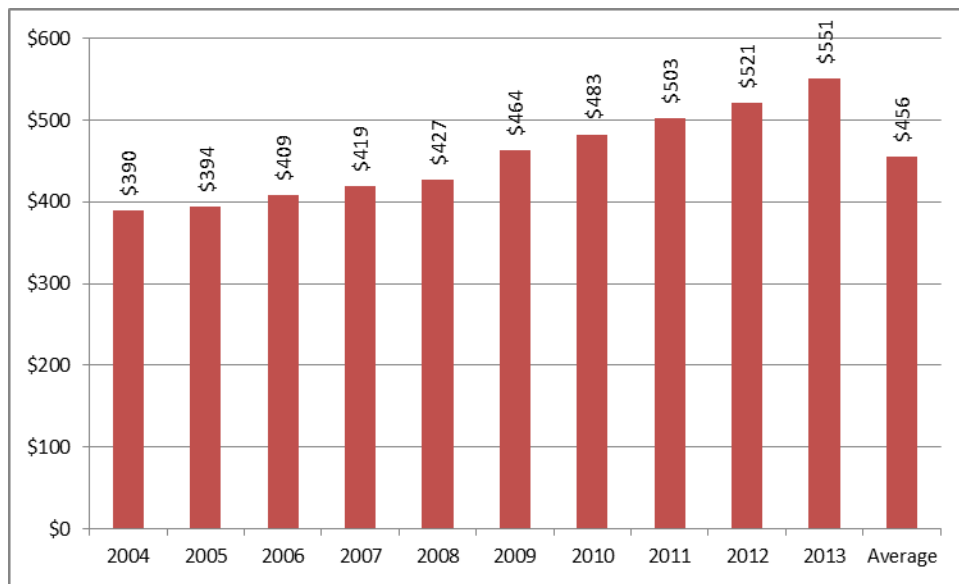


Table 21: Students' Expenditures

	CB & Surrounding area	Outside of CB & Surrounding Area	All Areas <sup>41</sup>
Rent or Room and Board	\$183	\$230	\$206
Heat and Light	\$39	\$18	\$28
Telephone, Cable and Internet	\$42	\$23	\$32
Groceries	\$118	\$130	\$124
Restaurants	\$34	\$40	\$37
Bus and Taxi Fare	\$5	\$11	\$8
Gas	\$68	\$51	\$60
Entertainment	\$35	\$34	\$35
Clothing and Footwear	\$30	\$28	\$29
<b>Total</b>	<b>\$554</b>	<b>\$565</b>	<b>\$559</b>

According to the cost of living estimates available on MUN's website, a student was expected to spend \$3,500 annually on personal items, or \$291.67 per month. This was allocated to individual expenditure items by using the shares implied in the Grenfell student survey. The details of these calculations are found in Table 22. Based on these calculations, the expenditures assumed for students on heat and light depended on whether the student was inside or outside of the catchment area. Specifically, students who resided inside the catchment area (either St. John's or Corner Brook) were assumed to pay \$52 per month for heat and light, while those outside of the catchment area (either St. John's or Corner Brook) were assumed to pay \$32 per month for heat and light. The other personal expenditures by students assumed in this study were derived in an identical manner and are also provided in Table 22.

<sup>41</sup> These expenditures were taken from Monthly Student Expenditure survey at Grenfell campus published in March 2012 ("The Role of Post-Secondary Education in the Corner Brook Economy" by ACOA).

**Table 22: Allocation of \$3,500 of Annual Students' Expenditures on Personal Items**

	Expenditure on Personal Items from Student Survey – Students from Catchment Area	Share	Assumed Personal Expenditure for Students from Catchment Area	Expenditure on Personal Items from Student Survey – Students from Outside of Catchment Area	Share	Expenditure Assumed Personal Expenditure for Students from Outside of Catchment Area
Heat and Light	\$39.00	17.81%	\$51.94	\$18.00	10.91%	\$31.82
Telephone, Cable and Internet	\$42.00	19.18%	\$55.94	\$23.00	13.94%	\$40.66
Bus and Taxi Fare	\$5.00	2.28%	\$6.66	\$11.00	6.67%	\$19.44
Gas	\$68.00	31.05%	\$90.56	\$51.00	30.91%	\$90.15
Entertainment	\$35.00	15.98%	\$46.61	\$34.00	20.61%	\$60.10
Clothing and Footwear	\$30.00	13.70%	\$39.95	\$28.00	16.97%	\$49.49
<b>Total Personal Expenditure</b>	<b>\$219.00</b>		<b>\$291.67</b>	<b>\$165.00</b>		<b>\$291.67</b>

Table 23 illustrates the composition of students' expenditures assumed for this study. The specific expenditures analyzed for each campus are provided in Table 24 and Figure 22. The direct expenditures by MUN students injected into the local economy were \$141.2 million annually for all campuses: \$120.2 million for the St. John's campus, \$8.9 million for the Marine Institute and \$12.2 million for the Grenfell campus. On average, over the past ten years, students have spent \$141.2 million per annum in the local economy. Room and board comprised 37% of these expenditures, followed by 24% for food, 14% for transportation, 12% for utilities, 7% for entertainment and 6% for clothing. Approximately 85% of these expenditures were associated with the St. John's campus, 6% were linked to students enrolled in the Marine Institute and nearly 9% was connected to Grenfell campus enrollment.

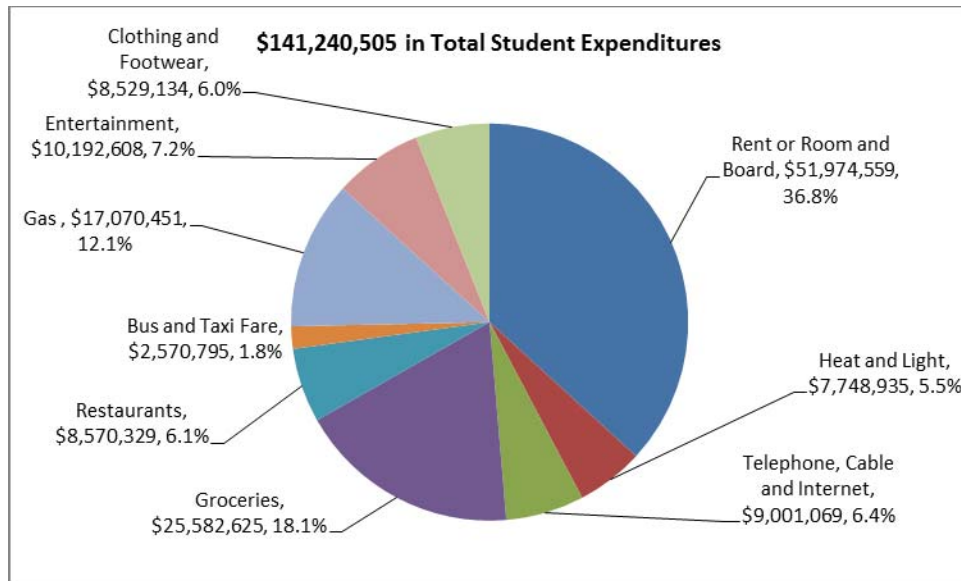
**Table 23: Assumed Monthly Expenditures by Type of Student**

	St. John's & Surrounding Area	Outside of St. John's & Surrounding Area	Corner Brook & Surrounding area	Outside of Corner Brook & Surrounding Area
Rent or Room and Board	\$0	\$598.70	\$183.00	\$456.10
Heat and Light	\$51.94	\$31.82	\$51.94	\$31.82
Telephone, Cable and Internet	\$55.94	\$40.66	\$55.94	\$40.66
Groceries	\$118.00	\$178.43	\$118.00	\$178.43
Restaurants	\$34.00	\$54.90	\$34.00	\$54.90
Bus and Taxi Fare	\$6.66	\$19.44	\$6.66	\$19.44
Gas	\$90.56	\$90.15	\$90.56	\$90.15
Entertainment	\$46.61	\$60.10	\$46.61	\$60.10
Clothing and Footwear	\$39.95	\$49.49	\$39.95	\$49.49
<b>Total Students' Expenditure</b>	<b>\$443.67</b>	<b>\$1,123.70</b>	<b>\$626.67</b>	<b>\$981.10</b>

**Table 24: Annual Students' Expenditures by Campus (\$M)**

	All Campuses	St. John's campus	Marine Institute	Grenfell campus
Rent or Room and Board	\$52.0	\$43.8	\$3.4	\$4.8
Heat and Light	\$7.7	\$6.6	\$0.4	\$0.6
Telephone, Cable and Internet	\$9.0	\$7.7	\$0.5	\$0.7
Groceries	\$25.6	\$21.7	\$1.7	\$2.2
Restaurants	\$8.6	\$7.4	\$0.5	\$0.7
Bus and Taxi Fare	\$2.6	\$2.2	\$0.1	\$0.2
Gas	\$17.1	\$14.7	\$1.0	\$1.4
Entertainment	\$10.2	\$8.8	\$0.6	\$0.8
Clothing and Footwear	\$8.5	\$7.3	\$0.5	\$0.7
<b>Total Students' Expenditure</b>	<b>\$141.2</b>	<b>\$120.2</b>	<b>\$8.9</b>	<b>\$12.2</b>

**Figure 22: Students' Expenditures by Type of Expenditure – All Campuses**



### 3.7 Inputs – Visitors' Expenditures

Based on the Grenfell student survey, 65% of students from outside of the catchment area had visitors. Over the course of their studies, each student received 12 visitors. For a four-year program, this worked out to 3 people per year per student. Approximately 20% of the visitors stayed in hotels. While there was no information about the average length of each visit, it was assumed to be three days per visit.<sup>42</sup> It was assumed further that the expenditures on hotels would have been \$150 per day in St. John's and

<sup>42</sup> This is the same assumption employed in the UBC economic impact study. See, Sudmant (2009, p. 11-3).



\$100 per day in Corner Brook. As well, it was assumed that visitors spent \$25 per day on taxis. The assumed expenditures by visitors are provided in Table 25 and Table 26 and are displayed in Figure 23. In the past 10 years, it was estimated that visitors spent an average of \$6.8 M per year — 72% of which was on food, 10% was for hotels and 18% was spent on taxi and gas. In addition, 93% of the expenditures were made in St. John's.

**Table 25: Assumed Expenditures for Visitors**

	<b>St. John's Visitors</b>	<b>CNS<sup>43</sup> St. John's Visitors</b>	<b>Marine Institute Visitors</b>	<b>Grenfell campus Visitors</b>	<b>CB Nursing<sup>44</sup> Visitors</b>
Full time students (not living at home)	7,186	268	471	519	112
Percent with visitors	65.0%	65.0%	65.0%	65.0%	65.0%
Number of visitor per student	3	3	3	3	3
Percent using hotels	20.0%	20.0%	20.0%	20.0%	20.0%
Number of days	3	3	3	3	3
Expenditure per day for hotel	\$150	\$100	\$150	\$100	\$100
Expenditure per day for food	\$100	\$100	\$100	\$100	\$100
Expenditure per taxis	\$25	\$25	\$25	\$25	\$25

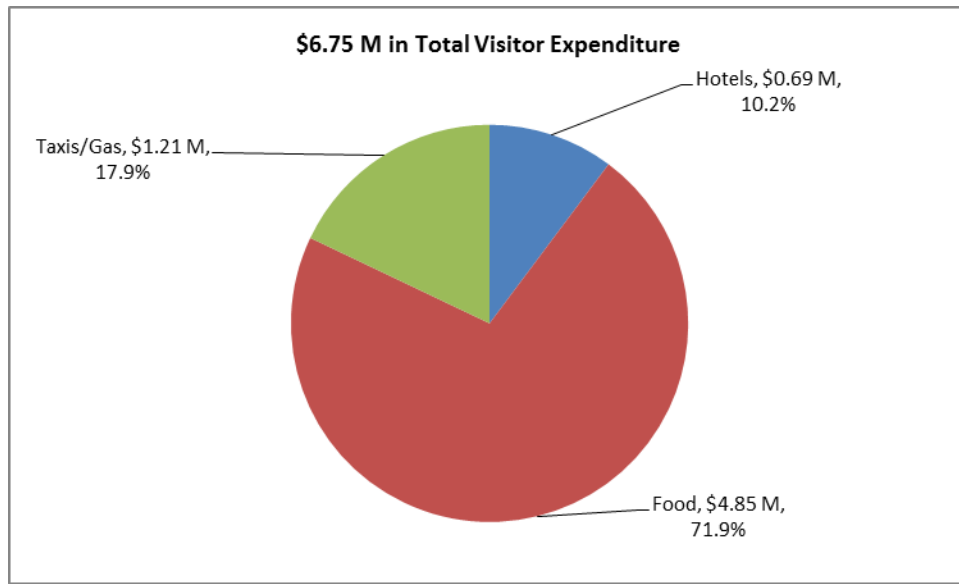
**Table 26: Expenditures by Visitors to MUN – All Campuses (\$M)**

	<b>Marine Institute</b>	<b>Grenfell campus</b>	<b>St. John's campus</b>	<b>All Campus</b>
Hotels	\$0.04	\$0.04	\$0.61	\$0.69
Food	\$0.27	\$0.36	\$4.23	\$4.85
Taxis/Gas	\$0.07	\$0.09	\$1.06	\$1.21
<b>Total Visitor Expenditure</b>	<b>\$0.37</b>	<b>\$0.48</b>	<b>\$5.89</b>	<b>\$6.75</b>

<sup>43</sup> CNS is the Centre for Nursing Studies in St. John's. The CNS is considered part of the St. John's campus for this study.

<sup>44</sup> CB Nursing is Western Nursing and is considered part of the Grenfell campus for this study.

Figure 23: Expenditures by Visitors to MUN by Type of Expenditure – All Campuses



### 3.8 Inputs - Infrastructure Investment - Equipment Purchases

On average, over the past ten years, MUN purchased \$17.4 million per year in equipment.<sup>45</sup> This information is profiled in Table 27, Table 28 and Figure 24 to Figure 26 below. Depending on the type of equipment, this investment has had a significant impact on the local economy.

Table 27: MUN's Equipment Purchased at All Campuses and by Type of Equipment (\$M)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	sum	Ave.
Laboratory	\$5.4	\$4.5	\$11.1	\$6.2	\$4.8	\$5.4	\$7.4	\$2.8	\$6.6	\$9.0	\$63.3	\$6.3
Library Acquisitions & Equipment	\$6.0	\$5.9	\$6.5	\$7.3	\$5.2	\$5.7	\$5.6	\$5.4	\$5.3	\$4.9	\$57.7	\$5.8
Computers, Software, AV	\$2.8	\$2.5	\$1.6	\$1.5	\$3.3	\$2.2	\$1.9	\$2.3	\$4.3	\$2.7	\$25.0	\$2.5
Marine	\$0.9	\$1.0	\$0.5	\$0.7	\$0.3	\$0.3	\$1.5	\$0.5	\$0.7	\$1.8	\$8.2	\$0.8
Furniture & Office	\$0.2	\$0.2	\$1.3	\$0.8	\$0.4	\$2.7	\$0.6	\$0.3	\$0.3	\$0.4	\$7.2	\$0.7
Vehicles	\$0.2	\$0.3	\$0.6	\$1.4	\$0.7	\$0.3	\$1.0	\$1.8	\$0.4	\$0.2	\$6.9	\$0.7
Other	\$0.4	\$0.2	\$0.6	\$0.5	\$0.6	\$0.4	\$1.1	\$0.3	\$0.4	\$0.6	\$5.2	\$0.5
<b>Total Equipment</b>	<b>\$15.9</b>	<b>\$14.5</b>	<b>\$22.2</b>	<b>\$18.4</b>	<b>\$15.3</b>	<b>\$17.0</b>	<b>\$19.1</b>	<b>\$13.5</b>	<b>\$18.0</b>	<b>\$19.6</b>	<b>\$173.6</b>	<b>\$17.4</b>

Table 28: MUN's Equipment Purchased by Campus (\$M)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	sum	Average
St. John's campus - Equipment	\$14.4	\$13.8	\$20.3	\$16.2	\$13.8	\$15.8	\$15.7	\$10.4	\$16.1	\$15.9	\$152.4	\$15.2
Marine Institute - Equipment	\$1.3	\$0.6	\$1.7	\$2.0	\$1.2	\$0.9	\$3.2	\$2.6	\$1.0	\$3.1	\$17.6	\$1.8
Grenfell campus - Equipment	\$0.2	\$0.2	\$0.2	\$0.2	\$0.3	\$0.2	\$0.2	\$0.4	\$0.8	\$0.7	\$3.5	\$0.4
<b>Total Equipment</b>	<b>\$15.9</b>	<b>\$14.5</b>	<b>\$22.2</b>	<b>\$18.4</b>	<b>\$15.3</b>	<b>\$17.0</b>	<b>\$19.1</b>	<b>\$13.5</b>	<b>\$18.0</b>	<b>\$19.6</b>	<b>\$173.6</b>	<b>\$17.4</b>

<sup>45</sup> The time profile of investment in equipment and its composition by type was made available by officials from Memorial University's *Office of Finance and Administration*.

Figure 24: MUN's Equipment Purchased at All Campuses and by Type of Equipment

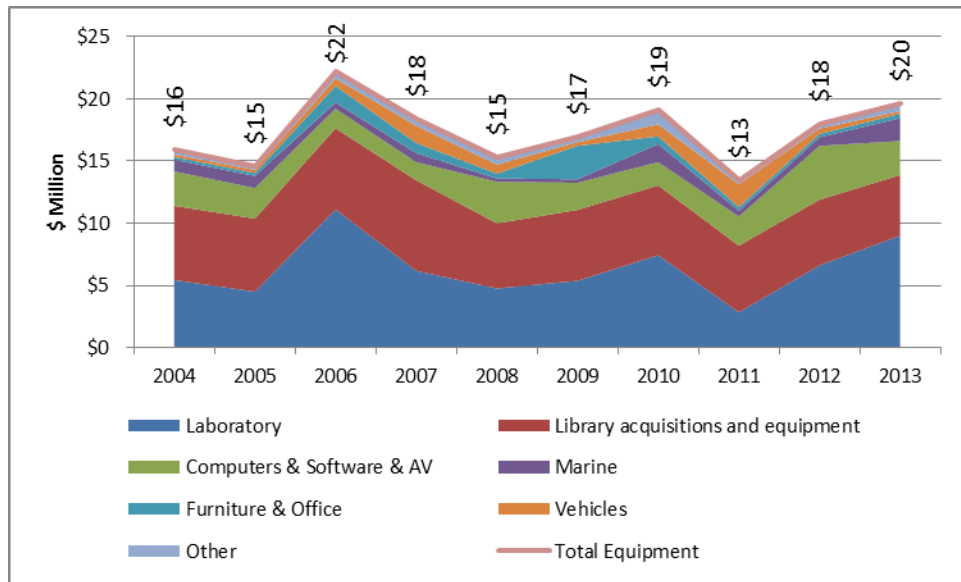


Figure 25: MUN's Equipment Purchased by Campus

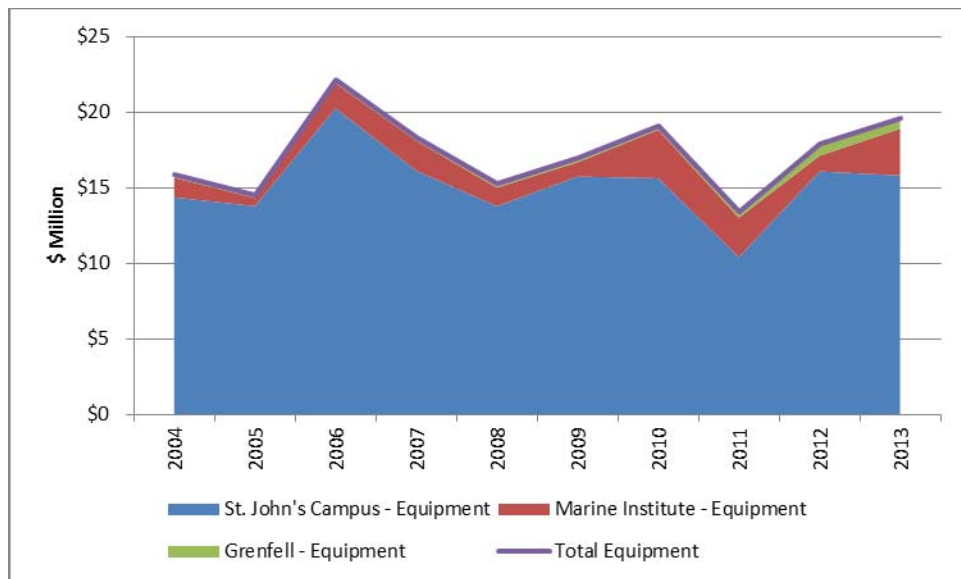
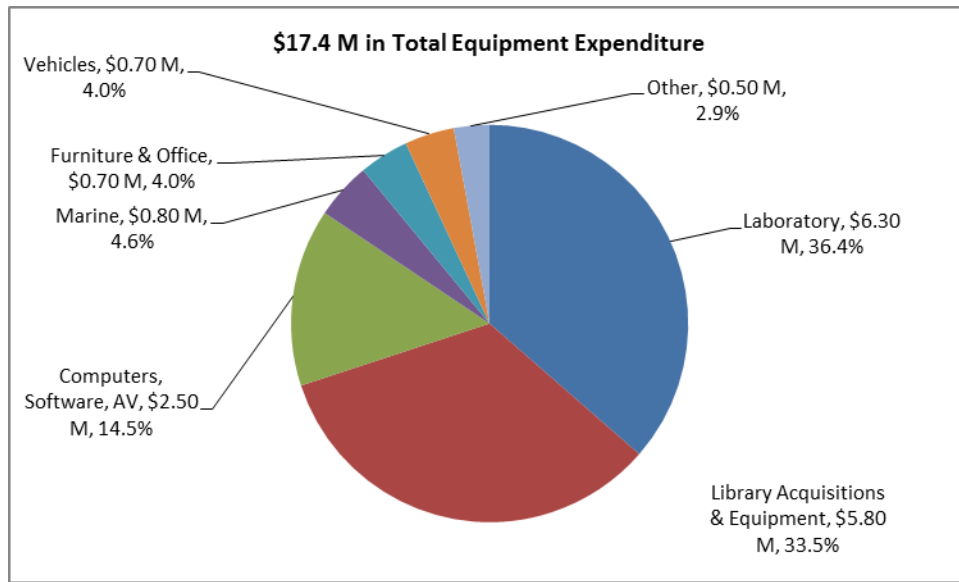


Figure 26: MUN's Equipment Purchased by Type of Purchase - All Campuses



### 3.9 Inputs - Infrastructure Investment - Buildings

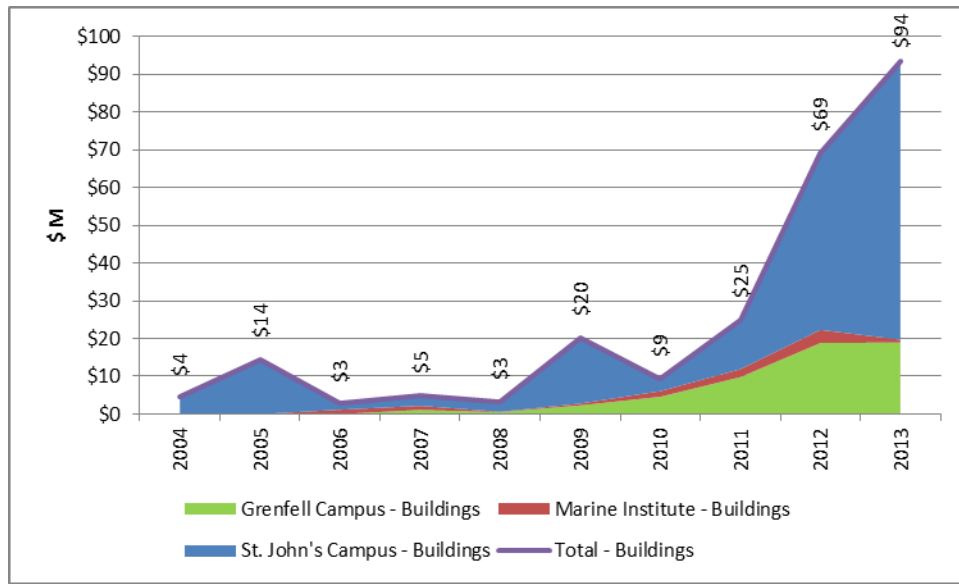
Over the past ten years, MUN invested \$25 million per year in new buildings.<sup>46</sup> This information is profiled in Table 29 and Figure 27 below. The construction of buildings has had a significant impact on the local economy through both employment and the purchase of goods and services used in construction.

Table 29: Investment in Buildings by Campus (\$M)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Sum	Ave.
Grenfell campus	\$0.1	\$0.0	\$0.0	\$1.1	\$0.5	\$2.3	\$4.6	\$9.8	\$18.8	\$19.0	\$56.2	\$5.6
Marine Institute	\$0.0	\$0.0	\$1.2	\$1.1	\$0.1	\$0.5	\$1.5	\$2.1	\$3.5	\$0.7	\$10.7	\$1.1
St. John's campus	\$4.4	\$14.3	\$1.6	\$2.6	\$2.7	\$17.4	\$3.3	\$13.1	\$46.6	\$73.9	\$180.1	\$18.0
<b>Total</b>	<b>\$4.5</b>	<b>\$14.3</b>	<b>\$2.7</b>	<b>\$4.8</b>	<b>\$3.4</b>	<b>\$20.2</b>	<b>\$9.4</b>	<b>\$25.0</b>	<b>\$69.0</b>	<b>\$93.6</b>	<b>\$246.9</b>	<b>\$24.7</b>

<sup>46</sup> The time profile of investment in buildings was made available by officials from Memorial University's *Office of Finance and Administration Services*.

Figure 27: Investment in Buildings by Campus (\$M)



### 3.10 Inputs - Pensioners

Data on the location of pensioners was available for only the most recent year. Unfortunately, its geographical specificity is restricted to within the province or outside of it. The pensioner data available for this study is provided in Table 30. \$41.4 million was paid out to pensioners located within NL. This information was assigned to each campus based on the share of employees.

Table 30: MUN's Pensioners and Survivors by Region

	People	% of Total	Amount (\$M)	% of Total
Newfoundland and Labrador	1,323	78.2%	\$41.4	80.1%
Other Provinces	322	19.0%	\$9.3	18.1%
Other	46	2.7%	\$1.0	1.9%
<b>Total</b>	<b>1,691</b>	<b>100.0%</b>	<b>\$51.7</b>	<b>100.0%</b>

It is important to note that pensions within this context (that is, in calculating the economic benefits linked to MUN) were considered equivalent to consumer expenditures. As a consequence, the EcoTec model used a special simulation called a Final Demand Simulation to estimate these economic impacts.<sup>47</sup>

<sup>47</sup> This is a standard procedure for any item of final demand, including consumer expenditures, construction, exports, etc. The direct impacts were, in this special case, the first layer of suppliers, which were the businesses that benefitted directly from consumer expenditures (retail trade, personal services, restaurants, etc.). The indirect impacts were then the suppliers to the first layer of suppliers (that is, farmer who sold produce to restaurant, etc.). Induced economic impacts were, as usual, generated by the expenditures of workers at grocery stores, etc.

### 3.11 Inputs - Value of Higher Education

One of the primary outputs of any university is a more educated workforce. Consequently, there is an education premium reflected in salaries earned in Canada. In particular, there is a strong correlation between education and earnings — individuals with more education earn higher incomes.

In a 2014 study of incomes earned from 1991 to 2010 by 7,951 people born between 1955 and 1957, Frenette (2014) demonstrated an education premium for bachelor's degrees within Canada.<sup>48</sup> As shown in Table 31, Frenette (2014) found that the current value of the earnings of men with a bachelor's degree exceeded that for men with a college certificate by \$288,025 (assuming a 5% discount rate). The corresponding premium for women was \$164,593. Combining men and women into one average, the education premium derived for a bachelor's degree was \$226,309 in current value terms. This education premium is the equivalent today of the incremental earning capacity on average earned by those with a bachelor's degree over those with a college certificate. This is one measure of the economic impacts being generated by MUN.

**Table 31: Education Premium for a Bachelor's Degree**

	High School Diploma	College Certificate	Bachelor's Degree	Bachelor's Degree Income Minus High School Diploma Income	Bachelor's Degree Income Minus College Certificate Income
<b>Men</b>					
Total cumulative earnings	\$975,323	\$1,222,334	\$1,707,340	\$732,017	\$485,006
Present value of total cumulative earnings (@5%)	\$628,364	\$783,599	\$1,071,624	\$443,260	\$288,025
<b>Women</b>					
Total cumulative earnings	\$524,627	\$703,817	\$972,869	\$448,242	\$269,052
Present value of total cumulative earnings (@5%)	\$331,373	\$445,923	\$610,516	\$279,143	\$164,593
<b>Average</b>					
Total cumulative earnings	\$749,975	\$963,076	\$1,340,105	\$590,130	\$377,029
Present value of total cumulative earnings (@5%)	\$479,869	\$614,761	\$841,070	\$361,202	<b>\$226,309</b>

Source: Data for men and women taken from Frenette, (2014, Table 1, p. 14) but the average was calculated.

To derive the value of a higher degree, it was necessary to go back to the 2006 census, which is available on the Statistics Canada website. The relevant information is presented in Table 32. Based on this information, individuals with a university certificate, diploma or degree above the bachelor's level in NL were expected to receive an average income that is 1.46 times that received by individuals holding a bachelor's degree. Combining this with the \$226,309 derived in Table 31, one calculates a current value estimate for the value of a higher education degree in NL of \$330,411.

<sup>48</sup> Frenette, M., An Investment of a Lifetime? The Long-term Labour Market Premiums Associated with a Postsecondary Education, Statistics Canada Analytical Studies Research paper Series, February 2014, Table 1, p. 14. <http://www.statcan.gc.ca/pub/11f0019m/11f0019m2014359-eng.htm>

**Table 32: Average Total Income of the Population Aged 15 years and over by Highest Certificate, Diploma or Degree, by Province and Territory (2006 Census) (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick)**

	Canada	N.L.	P.E.I.	N.S.	N.B.
Bachelor's degree	\$52,907	\$45,915	\$40,830	\$43,436	\$46,232
University certificate, diploma or degree above bachelor level	\$69,230	\$67,036	\$57,176	\$60,095	\$62,967
<b>Ratio</b>	<b>1.31</b>	<b>1.46</b>	<b>1.40</b>	<b>1.38</b>	<b>1.36</b>

Source: Statistics Canada, Census of Population, Last modified: 2009-10-09, <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/labor50a-eng.htm>

Next, it was necessary to calculate a base of bachelor's and higher degree holders who were expected to stay in NL. These calculations are undertaken in Table 33. In the past 10 years, MUN has graduated approximately 2,600 students annually with bachelor-level degrees and about 625 students annually with master's or higher degrees. If all of these students were to stay and work in NL, one would expect to observe an increase in incomes and spending power within the economy of \$8 billion. However, not all graduates of MUN stay in the province.

For the purpose of this analysis, 10% of the international graduates and 10% out-of-province graduates were assumed to stay and work in the province. Consequently, the educational premium for the other 90% of international students and out-of-province students were not counted in this economic impact analysis.<sup>49</sup>

A further assumption was that only 75% of the NL students were assumed to stay and work within the province. As illustrated in Table 34, these assumptions implied that only 60% of the students who graduated annually stayed and worked within the province. Based on these assumptions, the economic impact associated with the education premium to MUN graduates was \$522 million per annum. These incremental incomes generated elevated expenditures that have shown up through the demand for housing, for example, and have had knock-on economic impacts that were felt throughout the province.

**Table 33: The Contribution of Bachelors and Higher Degrees to Incomes in Newfoundland and Labrador (number of degrees or graduates unless otherwise indicated)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
Bachelor degrees produced by MUN	2,355	2,550	2,659	2,818	2,654	2,572	2,508	2,592	2,587	2,700	<b>2,600</b>
Masters and higher degrees produced by MUN	518	472	575	588	525	612	626	744	787	813	<b>626</b>
Total degrees produced by MUN	2,873	3,022	3,234	3,406	3,179	3,184	3,134	3,336	3,374	3,513	<b>3,226</b>
Bachelors - out-of-province	218	265	337	397	418	398	400	430	420	463	<b>375</b>
Bachelors - international	62	86	87	108	100	119	126	136	157	183	<b>116</b>

<sup>49</sup> We are not aware of any data which shows the number of out-of-province students and international students who stay and work in the province. We use 10% as a reasonable illustration of the kinds of impacts that one might expect to observe.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
Bachelors – NL (local)	2,075	2,199	2,235	2,313	2,137	2,055	1,982	2,027	2,010	2,054	2,109
Higher degrees - out-of - province	96	93	119	133	125	134	140	176	186	197	140
Higher degrees - international	71	75	94	105	88	106	112	154	184	207	120
Higher degrees – NL (local)	351	304	362	350	312	372	374	414	417	409	367
Bachelors – NL (local) -75% Assumed to Stay & Work	1,557	1,649	1,676	1,735	1,602	1,541	1,487	1,520	1,508	1,540	1,582
Education Premium – local Bachelors -75% Assumed to Stay and Work (\$226,309)	\$352 M	\$373 M	\$379 M	\$393 M	\$363 M	\$349 M	\$336 M	\$344 M	\$341 M	\$349 M	\$358 M
Higher degrees – NL (local) – 75% Assumed to Stay & Work	263	228	272	263	234	279	281	310	313	307	275
Education Premium Higher degrees – NL (local) - 75% Assumed to Stay & Work (\$330,411)	\$87 M	\$75 M	\$90 M	\$87 M	\$77 M	\$92 M	\$93 M	\$102 M	\$103 M	\$101 M	\$91 M
<b>Education Premium NL (local) Undergraduates &amp; Graduates</b>	<b>\$439 M</b>	<b>\$449 M</b>	<b>\$469 M</b>	<b>\$479 M</b>	<b>\$440 M</b>	<b>\$441 M</b>	<b>\$429 M</b>	<b>\$446 M</b>	<b>\$444 M</b>	<b>\$450 M</b>	<b>\$449 M</b>
Bachelors – Out-of-Province - 10% Assumed to Stay & Work	22	27	34	40	42	40	40	43	42	46	37
Education Premium – Out-of-Province Bachelors -10% Assumed to Stay and Work (\$841,070)	\$18 M	\$22 M	\$28 M	\$33 M	\$35 M	\$33 M	\$34 M	\$36 M	\$35 M	\$39 M	\$32 M
Higher degrees – Out-of-Province – 10% Assumed to Stay & Work	10	9	12	13	12	13	14	18	19	20	14
Education Premium Higher degrees – Out-of-Province - 10% Assumed to Stay & Work (\$1,227,962)	\$12 M	\$11 M	\$15 M	\$16 M	\$15 M	\$16 M	\$17 M	\$22 M	\$23 M	\$24 M	\$17 M
<b>Education Premium Out-of-Provinces Undergraduates &amp; Graduates</b>	<b>\$30 M</b>	<b>\$34 M</b>	<b>\$43 M</b>	<b>\$50 M</b>	<b>\$50 M</b>	<b>\$50 M</b>	<b>\$51 M</b>	<b>\$58 M</b>	<b>\$58 M</b>	<b>\$63 M</b>	<b>\$49 M</b>
Bachelors – International - 10% Assumed to Stay & Work	6	9	9	11	10	12	13	14	16	18	12
Education Premium – International Bachelors -10% Assumed to Stay and Work (\$841,070)	\$5 M	\$7 M	\$7 M	\$9 M	\$8 M	\$10 M	\$11 M	\$11 M	\$13 M	\$15 M	\$10 M
Higher degrees – International – 10% Assumed to Stay & Work	7	8	9	10	9	11	11	15	18	21	12

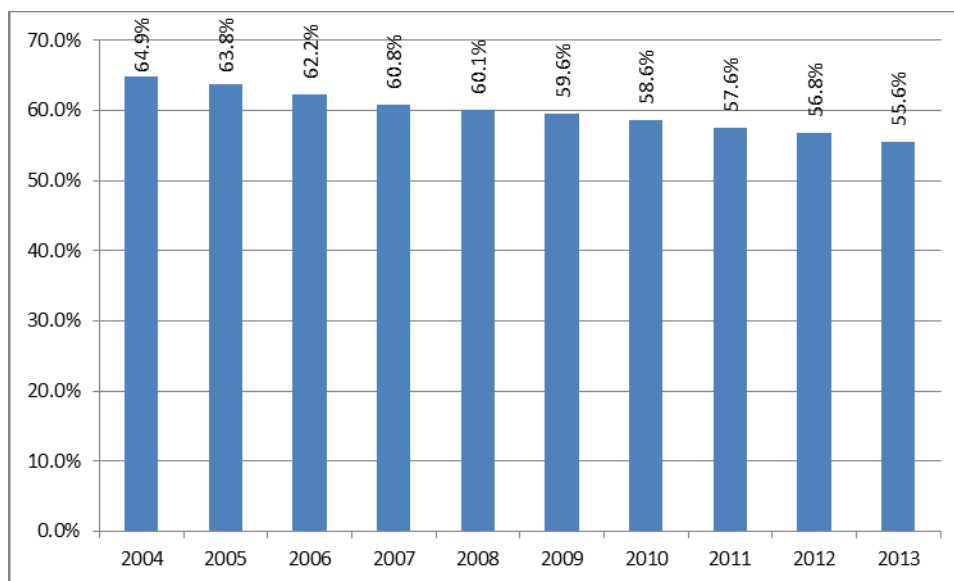


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
Education Premium Higher degrees – International - 10% Assumed to Stay & Work (\$1,227,962)	\$9 M	\$9 M	\$12 M	\$13 M	\$11 M	\$13 M	\$14 M	\$19 M	\$23 M	\$25 M	\$15 M
Education Premium Out-of-Provinces Undergraduates & Graduates	\$14 M	\$16 M	\$19 M	\$22 M	\$19 M	\$23 M	\$24 M	\$30 M	\$36 M	\$41 M	\$25 M
Total Education Premium for Memorial University	\$483 M	\$499 M	\$531 M	\$551 M	\$510 M	\$514 M	\$504 M	\$535 M	\$538 M	\$554 M	\$522 M

Table 34: Percentage of MUN's Graduates Assumed to Stay in Newfoundland and Labrador

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	average
Percent of graduates who are assumed to stay	64.89%	63.83%	62.21%	60.83%	60.07%	59.55%	58.57%	57.55%	56.75%	55.57%	60.01%

Figure 28: Percentage of MUN's Graduates Assumed to Stay in Newfoundland and Labrador



## 4.0 Outputs – University Operations – All Campuses

The economic impacts estimated for the operations component for all MUN campuses are described below. The specific economic impacts analyzed for all campuses were:

1. full-time-equivalent employment;
2. salaries and benefits;
3. GDP;
4. municipal revenues;<sup>50</sup>
5. provincial revenues;
6. federal revenues; and
7. inter-firm sales.

### 4.1 Outputs – University Operations – All Campuses - Employment

The employment impacts for MUN's operations expenditures by campus are presented in Table 35 and Figure 29. In addition to considering the direct, indirect, and induced impacts, the analysis evaluated the employment impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The operating expenditures for MUN, across all of its campuses, have brought about 5,263 full-time-equivalent jobs annually within NL. This consisted of 3,206 direct jobs at the university, 665 jobs created in businesses that supply goods and services to MUN, and 1,392 additional jobs in the services sector. The majority, specifically 87.2% of the jobs from MUN's operations, was realized on the Avalon Peninsula; the Corner Brook/Deer Lake region was responsible for 8.7%, less than 1% was created in Labrador, and the employment spread throughout the rest of the island accounted for the remaining 3.2%.

As the breakdown of total employment by campus revealed, the St. John's campus was responsible for 82.2% of the total employment (4,323 person-years of 5,263 person-years) from MUN's operations. A further 11.3% (590 person-years) flowed from the operations of the Marine Institute, while 6.5% (340 person-years) resulted from the operations of the Grenfell campus. Finally, only 0.2% of total employment for MUN's operations (10 person-years) occurred in Labrador.

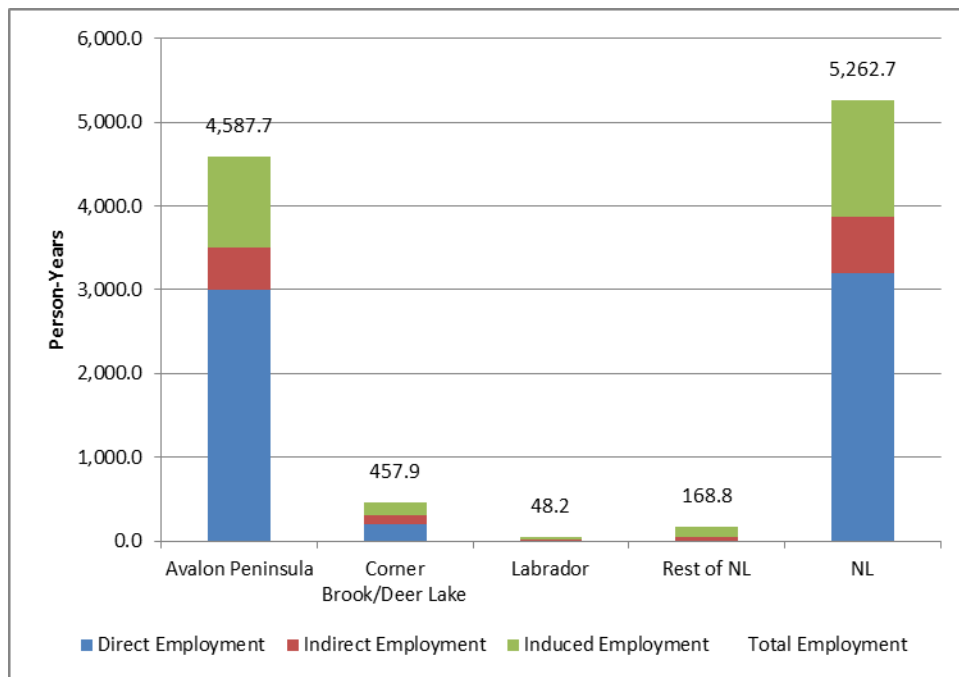
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<sup>50</sup> Due to the large number of municipalities in any given province and the complexity of the structure of fees, taxes and permits collected by each municipality, it is extremely difficult to calculate with precision municipal revenues arising from a given expenditure (for example, research activities at MUN). Moreover, using the detailed CANSIM database from Statistics Canada, revenue data at the municipal level is not as easy to collect as are federal and provincial tax revenues. As a consequence, the EcoTec model utilizes an indirect method to allocate approximate revenues to municipalities within a province. The allocation is made through a coefficient that is calculated as the ratio between local taxes on factors of production (licenses fees, permits, property taxes, business taxes, etc.) and total indirect taxes on factors of production collected in each province by all three levels of governments. The end result for Newfoundland and Labrador is that municipal tax revenues estimated by the model account for about 18% of indirect tax revenues collected within the province.

**Table 35: Employment Associated with Operations – All Campuses and Ten-Year Average (Person-Years)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Employment	2,993.0	207.0	5.9	0.0	3,205.9
Indirect Employment	505.3	100.7	12.9	46.1	665.0
Induced Employment	1,089.5	150.1	29.4	122.7	1,391.7
<b>Total Employment</b>	<b>4,587.7</b>	<b>457.9</b>	<b>48.2</b>	<b>168.8</b>	<b>5,262.7</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Employment	2,633.6	0.0	0.0	0.0	2,633.6
Indirect Employment	434.8	63.6	10.0	38.1	546.5
Induced Employment	940.7	80.3	22.5	99.7	1,143.3
<b>Total Employment</b>	<b>4,009.1</b>	<b>143.9</b>	<b>32.6</b>	<b>137.8</b>	<b>4,323.4</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Employment	359.4	0.0	0.0	0.0	359.4
Indirect Employment	59.9	8.6	1.3	4.8	74.6
Induced Employment	129.4	10.8	3.0	12.8	156.0
<b>Total Employment</b>	<b>548.7</b>	<b>19.5</b>	<b>4.3</b>	<b>17.6</b>	<b>590.1</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Employment	0.0	207.0	0.0	0.0	207.0
Indirect Employment	10.3	28.4	0.8	3.2	42.7
Induced Employment	18.8	58.8	2.4	9.8	89.8
<b>Total Employment</b>	<b>29.1</b>	<b>294.2</b>	<b>3.2</b>	<b>13.0</b>	<b>339.5</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Employment	0.0	0.0	5.9	0.0	5.9
Indirect Employment	0.3	0.1	0.8	0.1	1.2
Induced Employment	0.5	0.2	1.5	0.3	2.6
<b>Total Employment</b>	<b>0.8</b>	<b>0.3</b>	<b>8.2</b>	<b>0.4</b>	<b>9.7</b>

Figure 29: Employment Associated with Operations – All Campuses and Ten-Year Average



## 4.2 Outputs – University Operations – All Campuses – Salaries and Benefits

The salaries and benefits impacts by campus for MUN’s operating expenditures are shown in Table 36 and Figure 30. In addition to analyzing the impacts by their direct, indirect and induced components, the analysis evaluated the salaries and benefits impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

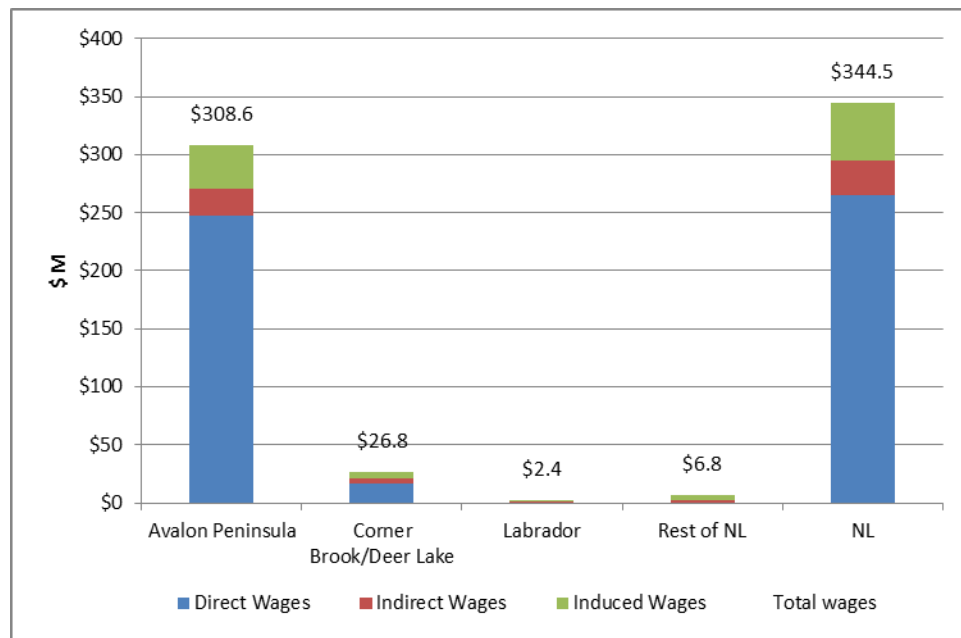
MUN’s operating expenditures, across all of its campus, have enabled \$345 million in salaries and benefits to be paid to Newfoundland and Labrador workers: \$265 million in direct salaries and benefits, \$30 million in salaries and benefits paid by firms that supply goods and services to the university, and \$50 million in salaries and benefits earned by employees in the services sector. The majority of the salaries and benefits, 89.6%, was realized on the Avalon Peninsula, 7.8% in the Corner Brook/Deer Lake region, less than 1% of the salaries and benefits went to individuals in the Labrador region, and the remaining 2.0% of salaries and benefits were distributed throughout the rest of the island.

The analysis of total salaries and benefits by campus revealed that 82.1% of the total salaries and benefits (\$283 million of \$345 million) were attributed to the St. John’s campus and an estimated 11.2% (\$39 million) through the Marine Institute, while the Grenfell campus brought about 6.4% of total salaries and benefits (\$22 million). Finally, only 0.2% of salaries and benefits (\$1 million) accrued to Labrador workers.

**Table 36: Salaries and Benefits Associated with Operations – All Campuses and Ten-Year Average (\$M)**

	<b>Avalon Peninsula</b>	<b>Corner Brook/Deer Lake</b>	<b>Labrador</b>	<b>Rest of NL</b>	<b>NL</b>
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Salaries/Benefits	\$247.5	\$17.1	\$0.5	\$0.0	\$265.1
Indirect Salaries/Benefits	\$22.7	\$4.4	\$0.6	\$2.1	\$29.9
Induced Salaries/Benefits	\$38.3	\$5.3	\$1.3	\$4.6	\$49.5
<b>Total Salaries/Benefits</b>	<b>\$308.6</b>	<b>\$26.8</b>	<b>\$2.4</b>	<b>\$6.8</b>	<b>\$344.5</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Salaries/Benefits	\$217.8	\$0.0	\$0.0	\$0.0	\$217.8
Indirect Salaries/Benefits	\$19.5	\$2.8	\$0.5	\$1.7	\$24.5
Induced Salaries/Benefits	\$33.0	\$2.9	\$1.0	\$3.8	\$40.7
<b>Total Salaries/Benefits</b>	<b>\$270.3</b>	<b>\$5.7</b>	<b>\$1.5</b>	<b>\$5.5</b>	<b>\$283.0</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Salaries/Benefits	\$29.7	\$0.0	\$0.0	\$0.0	\$29.7
Indirect Salaries/Benefits	\$2.7	\$0.4	\$0.1	\$0.2	\$3.4
Induced Salaries/Benefits	\$4.5	\$0.4	\$0.1	\$0.5	\$5.6
<b>Total Salaries/Benefits</b>	<b>\$37.0</b>	<b>\$0.8</b>	<b>\$0.2</b>	<b>\$0.7</b>	<b>\$38.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Salaries/Benefits	\$0.0	\$17.1	\$0.0	\$0.0	\$17.1
Indirect Salaries/Benefits	\$0.5	\$1.3	\$0.0	\$0.1	\$1.9
Induced Salaries/Benefits	\$0.8	\$1.9	\$0.1	\$0.4	\$3.2
<b>Total Salaries/Benefits</b>	<b>\$1.2</b>	<b>\$20.3</b>	<b>\$0.1</b>	<b>\$0.5</b>	<b>\$22.2</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Salaries/Benefits	\$0.0	\$0.0	\$0.5	\$0.0	\$0.5
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.6</b>	<b>\$0.0</b>	<b>\$0.6</b>

**Figure 30: Salaries and Benefits Associated with Operations – All Campuses and Ten-Year Average (\$M)**



### 4.3 Outputs – University Operations – All Campuses – GDP

The GDP impacts by campus for MUN’s operating expenditures are provided in Table 37 and Figure 31. In addition to analyzing the direct, indirect and induced impacts, the analysis assessed the GDP impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The operations expenditures for MUN, across all of its campuses, have resulted in an estimated \$461 million in NL GDP. This consisted of \$269 million direct GDP, \$49 million in indirect GDP through businesses that supply goods and services to the university, and \$144 million in induced GDP through the services sector. The majority, 88.0%, resulted from activities on the Avalon Peninsula, the Corner Brook/Deer Lake region accounted for 8.3%, 1% was attributed to activities in Labrador, and the remaining 2.8% of GDP was spread throughout the rest of the island.

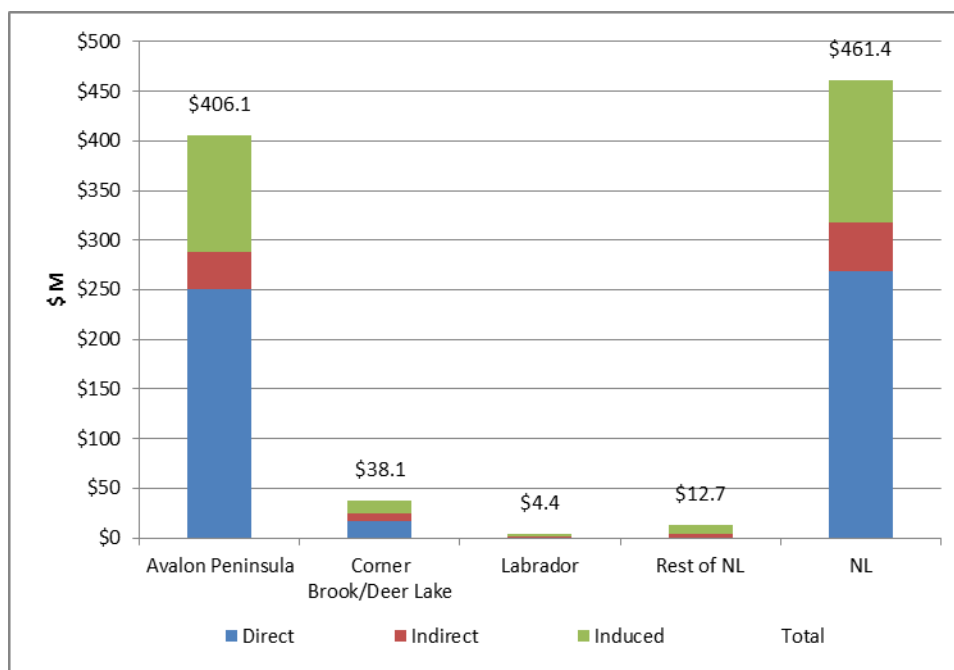
The analysis of total GDP by campus indicated that 82.1% of the total (\$379 million of \$461 million) was attributed to the St. John’s campus. A further 11.2% (\$52 million) resulted from the operations of the Marine Institute, while the Grenfell campus generated 6.5% (\$30 million). Only 0.2% of total GDP for MUN’s operations (\$0.9 million) was realized in Labrador.

**Table 37: GDP Associated with MUN’s Operations – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct GDP	\$250.9	\$17.4	\$0.5	\$0.0	\$268.8
Indirect GDP	\$37.4	\$7.0	\$1.2	\$3.4	\$49.1
Induced GDP	\$117.7	\$13.7	\$2.8	\$9.3	\$143.5
<b>Total GDP</b>	<b>\$406.1</b>	<b>\$38.1</b>	<b>\$4.4</b>	<b>\$12.7</b>	<b>\$461.4</b>

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct GDP	\$220.8	\$0.0	\$0.0	\$0.0	\$220.8
Indirect GDP	\$32.2	\$4.4	\$0.9	\$2.8	\$40.3
Induced GDP	\$102.0	\$6.2	\$2.1	\$7.6	\$117.9
<b>Total GDP</b>	<b>\$355.0</b>	<b>\$10.6</b>	<b>\$3.0</b>	<b>\$10.4</b>	<b>\$379.0</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct GDP	\$30.1	\$0.0	\$0.0	\$0.0	\$30.1
Indirect GDP	\$4.4	\$0.6	\$0.1	\$0.4	\$5.5
Induced GDP	\$14.0	\$0.8	\$0.3	\$1.0	\$16.1
<b>Total GDP</b>	<b>\$48.6</b>	<b>\$1.4</b>	<b>\$0.4</b>	<b>\$1.3</b>	<b>\$51.7</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct GDP	\$0.0	\$17.4	\$0.0	\$0.0	\$17.4
Indirect GDP	\$0.8	\$2.1	\$0.1	\$0.2	\$3.1
Induced GDP	\$1.7	\$6.7	\$0.2	\$0.7	\$9.3
<b>Total GDP</b>	<b>\$2.4</b>	<b>\$26.1</b>	<b>\$0.3</b>	<b>\$1.0</b>	<b>\$29.8</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct GDP	\$0.0	\$0.0	\$0.5	\$0.0	\$0.5
Indirect GDP	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Induced GDP	\$0.0	\$0.0	\$0.2	\$0.0	\$0.3
<b>Total GDP</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.7</b>	<b>\$0.0</b>	<b>\$0.9</b>

Figure 31: GDP Associated with MUN 's Operations – All Campuses and Ten-Year Average (\$M)



#### 4.4 Outputs – University Operations – All Campuses – Municipal Revenues

The municipal tax impacts for MUN's operations expenditures by campus are illustrated in Table 38 and Figure 32. In addition to considering the direct, indirect, and induced impacts, the analysis evaluated the municipal revenue impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

MUN's operating expenditures, across all of its campuses, created an estimated \$6.4 million in revenues per year to flow to NL municipalities. This comprised \$0.7 million in direct municipal revenues, \$0.2 million in municipal revenues from firms that supply goods and services to the university and \$5.4 million in municipal revenues from the services sector. The majority of the municipal revenues, 87.6%, were attributed to communities on the Avalon Peninsula, 9.1% accrued to local governments in the Corner Brook/Deer Lake region, less than 1% were achieved by municipalities in Labrador, and the remaining 2.2% of the municipal revenues were spread throughout the rest of the island.

The analysis of total municipal revenues by campus indicates that 81.7% of the total municipal revenues (\$5.2 million of \$6.4 million) stemmed from the St. John's campus. A further 11.1% (\$0.7 million) flowed from the operations of the Marine Institute, while 7.5% (\$0.5 million) resulted from the operations of the Grenfell campus. Only 0.2% of total municipal revenues for MUN's operations (\$0.01 million) materialized in Labrador.

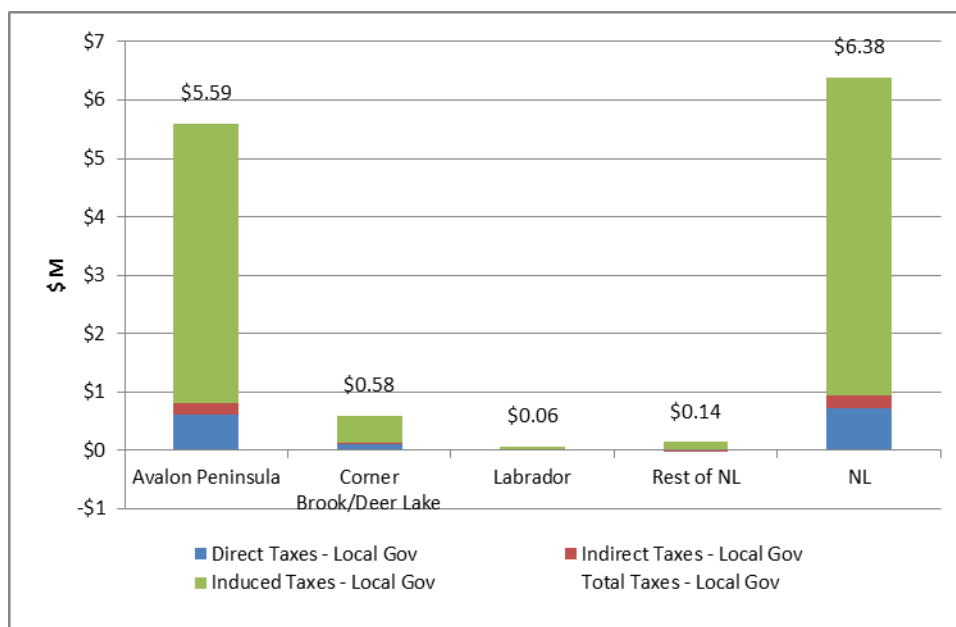
**Table 38: Municipal Revenues Associated with MUN 's Operations – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Municipal Revenues	\$0.62	\$0.11	\$0.00	\$0.00	\$0.73
Indirect Municipal Revenues	\$0.18	\$0.03	\$0.01	\$0.00	\$0.22
Induced Municipal Revenues	\$4.79	\$0.44	\$0.05	\$0.14	\$5.43
<b>Total Municipal Revenues</b>	<b>\$5.59</b>	<b>\$0.58</b>	<b>\$0.06</b>	<b>\$0.14</b>	<b>\$6.38</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Municipal Revenues	\$0.55	\$0.00	\$0.00	\$0.00	\$0.55
Indirect Municipal Revenues	\$0.16	\$0.01	\$0.01	\$0.02	\$0.20
Induced Municipal Revenues	\$4.19	\$0.12	\$0.03	\$0.12	\$4.46
<b>Total Municipal Revenues</b>	<b>\$4.90</b>	<b>\$0.14</b>	<b>\$0.04</b>	<b>\$0.14</b>	<b>\$5.21</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Municipal Revenues	\$0.07	\$0.00	\$0.00	\$0.00	\$0.07
Indirect Municipal Revenues	\$0.02	\$0.00	\$0.00	\$0.00	\$0.03
Induced Municipal Revenues	\$0.57	\$0.02	\$0.00	\$0.01	\$0.61
<b>Total Municipal Revenues</b>	<b>\$0.66</b>	<b>\$0.02</b>	<b>\$0.01</b>	<b>\$0.02</b>	<b>\$0.71</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Municipal Revenues	\$0.00	\$0.11	\$0.00	\$0.00	\$0.11
Indirect Municipal Revenues	\$0.00	\$0.01	\$0.00	\$0.00	\$0.02
Induced Municipal Revenues	\$0.03	\$0.31	\$0.00	\$0.01	\$0.35
<b>Total Municipal Revenues</b>	<b>\$0.03</b>	<b>\$0.43</b>	<b>\$0.00</b>	<b>\$0.01</b>	<b>\$0.48</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00



	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.00	\$0.00	\$0.01	\$0.00	\$0.01
<b>Total Municipal Revenues</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.01</b>	<b>\$0.00</b>	<b>\$0.01</b>

Figure 32: Municipal Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M)



#### 4.5 Outputs – University Operations – All Campuses – Provincial Revenues

The provincial tax impacts by campus for MUN's operations expenditures are given in Table 39 and Figure 33. In addition to considering the direct, indirect and induced impacts, the analysis estimated the provincial tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

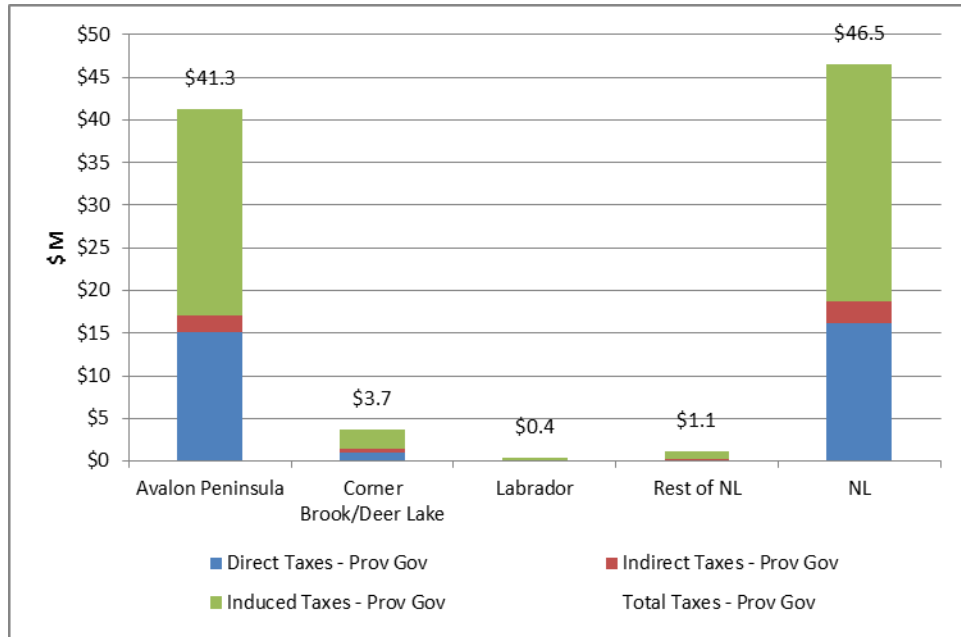
MUN's operating expenditures, across all of its campuses, have resulted in \$46.5 million in provincial revenues being generated within NL. This consisted of \$16.2 million in direct provincial revenues, \$2.5 million collected from firms that supply goods and services to the university, and \$27.8 million derived from the services sector. The majority of provincial revenues, 88.8%, occurred in the Avalon region, the Corner Brook/Deer Lake region accounted for 8.0%, less than 1% came from Labrador, and the remaining 2.4% of the provincial revenues were generated throughout the rest of the island.

The analysis of total provincial revenues by campus indicated that the St. John's campus was responsible for 82.2% of the total provincial revenues (\$38.2 million of \$46.5 million) that resulted from MUN's ongoing operations. A further 11.2% (\$5.2 million) were estimated for the operations of the Marine Institute, while 6.5% (\$3.0 million) were created through the operations of the Grenfell campus. Only 0.2% of total provincial revenues associated with MUN's operations (\$0.1 million) were from Labrador.

**Table 39: Provincial Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M)**

	<b>Avalon Peninsula</b>	<b>Corner Brook/Deer Lake</b>	<b>Labrador</b>	<b>Rest of NL</b>	<b>NL</b>
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Provincial Revenues	\$15.1	\$1.0	\$0.0	\$0.0	\$16.2
Indirect Provincial Revenues	\$1.9	\$0.3	\$0.1	\$0.2	\$2.5
Induced Provincial Revenues	\$24.3	\$2.4	\$0.3	\$0.9	\$27.8
<b>Total Provincial Revenues</b>	<b>\$41.3</b>	<b>\$3.7</b>	<b>\$0.4</b>	<b>\$1.1</b>	<b>\$46.5</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Provincial Revenues	\$13.3	\$0.0	\$0.0	\$0.0	\$13.3
Indirect Provincial Revenues	\$1.7	\$0.2	\$0.1	\$0.1	\$2.1
Induced Provincial Revenues	\$21.2	\$0.7	\$0.2	\$0.8	\$22.9
<b>Total Provincial Revenues</b>	<b>\$36.1</b>	<b>\$0.9</b>	<b>\$0.3</b>	<b>\$0.9</b>	<b>\$38.2</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Provincial Revenues	\$1.8	\$0.0	\$0.0	\$0.0	\$1.8
Indirect Provincial Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Induced Provincial Revenues	\$2.9	\$0.1	\$0.0	\$0.1	\$3.1
<b>Total Provincial Revenues</b>	<b>\$4.9</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$5.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Provincial Revenues	\$0.0	\$1.0	\$0.0	\$0.0	\$1.0
Indirect Provincial Revenues	\$0.0	\$0.1	\$0.0	\$0.0	\$0.2
Induced Provincial Revenues	\$0.2	\$1.5	\$0.0	\$0.1	\$1.8
<b>Total Provincial Revenues</b>	<b>\$0.2</b>	<b>\$2.7</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$3.0</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>

**Figure 33: Provincial Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M)**



#### 4.6 Outputs – University Operations – All Campuses – Federal Revenues

The federal tax impacts by campus for MUN's operations expenditures are given in Table 40, Figure 34 and Figure 33. In addition to considering the direct, indirect and induced impacts, the analysis estimated the federal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

MUN's operating expenditures, across all of its campuses, have resulted in \$38.2 million in federal revenues being generated within NL. This consisted of \$19.8 million in direct federal revenues, \$2.6 million in federal revenues collected from firms that supply goods and services to the university, and \$15.9 million in federal revenues derived from the services sector. The majority of the federal revenues, 89.0%, occurred in the Avalon region, the Corner Brook/Deer Lake region accounted for 8.1%, less than 1% came from Labrador, and the remaining 2.4% of the federal revenues were generated throughout the rest of the island.

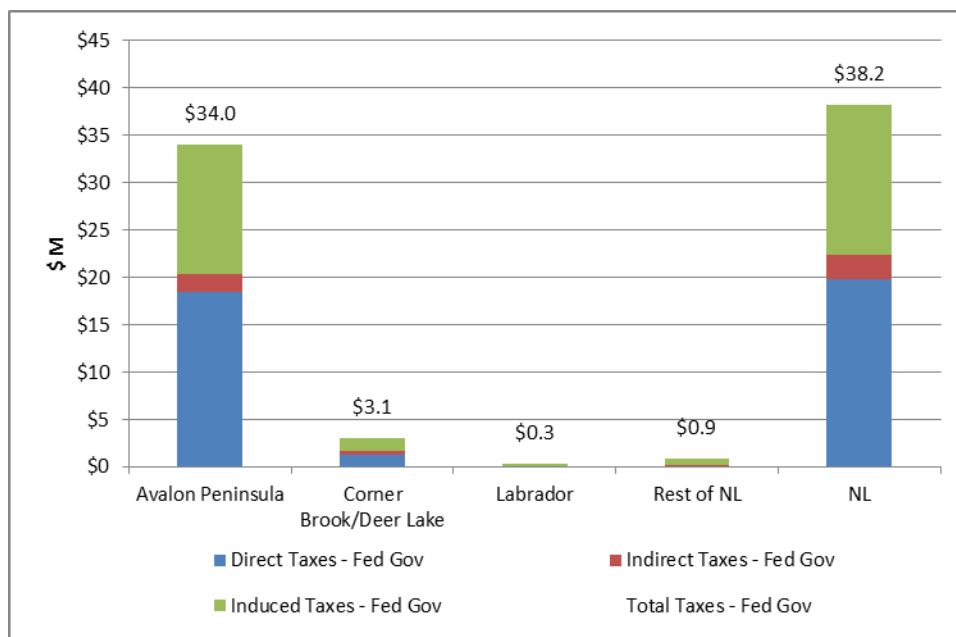
The analysis of total federal revenues by campus indicated that the St. John's campus was responsible for 82.2% of the total federal revenues (\$31.4 million of \$38.2 million) that resulted from MUN's ongoing operations. A further 11.3% (\$4.3 million) were estimated for the operations of the Marine Institute, while 6.5% (\$2.5 million) were created through the operations of the Grenfell campus and only 0.3% of the federal revenues (\$0.1 million) were from Labrador.

**Table 40: Federal Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Federal Revenues	\$18.5	\$1.3	\$0.0	\$0.0	\$19.8
Indirect Federal Revenues	\$2.0	\$0.4	\$0.1	\$0.2	\$2.6

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Induced Federal Revenues	\$13.6	\$1.4	\$0.2	\$0.7	\$15.9
<b>Total Federal Revenues</b>	<b>\$34.0</b>	<b>\$3.1</b>	<b>\$0.3</b>	<b>\$0.9</b>	<b>\$38.2</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Federal Revenues	\$16.2	\$0.0	\$0.0	\$0.0	\$16.2
Indirect Federal Revenues	\$1.7	\$0.2	\$0.1	\$0.1	\$2.1
Induced Federal Revenues	\$11.8	\$0.5	\$0.2	\$0.6	\$13.0
<b>Total Federal Revenues</b>	<b>\$29.7</b>	<b>\$0.8</b>	<b>\$0.2</b>	<b>\$0.7</b>	<b>\$31.4</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Federal Revenues	\$2.2	\$0.0	\$0.0	\$0.0	\$2.2
Indirect Federal Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Induced Federal Revenues	\$1.6	\$0.1	\$0.0	\$0.1	\$1.8
<b>Total Federal Revenues</b>	<b>\$4.1</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$4.3</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Federal Revenues	\$0.0	\$1.3	\$0.0	\$0.0	\$1.3
Indirect Federal Revenues	\$0.0	\$0.1	\$0.0	\$0.0	\$0.2
Induced Federal Revenues	\$0.1	\$0.8	\$0.0	\$0.0	\$1.0
<b>Total Federal Revenues</b>	<b>\$0.2</b>	<b>\$2.2</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$2.5</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>

Figure 34: Federal Revenues Associated with MUN's Operations – All Campuses and Ten-Year Average (\$M)



## 4.7 Outputs – University Operations – All Campuses – Inter-Firm Sales

The inter-firm sales for MUN's operations expenditures by campus are displayed in Table 41 and Figure 35. In addition to considering the direct, indirect and induced impacts, the analysis estimated the inter-firm sales for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region and for the rest of the island.

MUN's operating expenditures, across all of its campuses, have resulted in \$970 million in inter-firm sales being generated within NL. This consisted of \$381 million in direct inter-firm sales, \$100 million in inter-firm sales collected from firms that supply goods and services to the university, and \$489 million in inter-firm sales derived from the services sector. The majority of the inter-firm sales, 87.6%, occurred in the Avalon region, the Corner Brook/Deer Lake region accounted for 8.4%, 1% of the inter-firm sales came from Labrador, and the remaining 3.0% of the inter-firm sales were generated throughout the rest of the island.

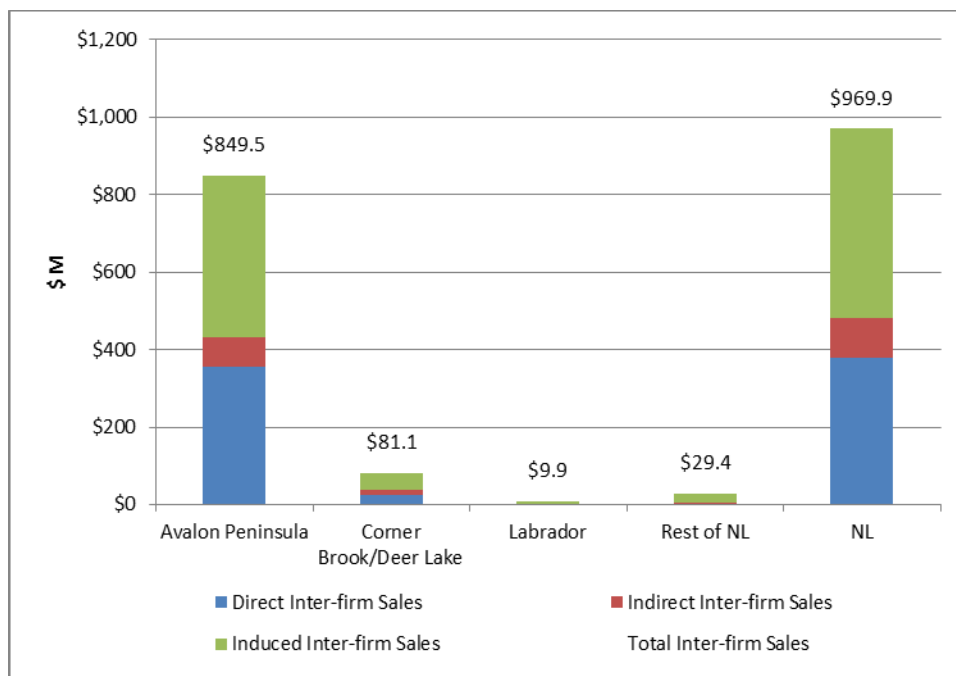
The analysis of total inter-firm sales by campus indicated that the St. John's campus was responsible for 82.2% of the total inter-firm sales (\$797 million of \$790 million) that resulted from MUN's ongoing operations. A further 11.2% (\$109 million) was estimated for the operations of the Marine Institute, while 6.4% (\$63 million) were created through the operations of the Grenfell campus. Only 0.2% of the inter-firm sales (\$2 million) were from Labrador.

**Table 41: Inter-Firm Sales Associated with Operations – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Inter-Firm Sales	\$355.4	\$24.5	\$0.7	\$0.0	\$380.6
Indirect Inter-Firm Sales	\$78.1	\$13.2	\$2.4	\$6.6	\$100.4
Induced Inter-Firm Sales	\$415.9	\$43.4	\$6.7	\$22.8	\$488.9
<b>Total Inter-Firm Sales</b>	<b>\$849.5</b>	<b>\$81.1</b>	<b>\$9.9</b>	<b>\$29.4</b>	<b>\$969.9</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Inter-Firm Sales	\$312.7	\$0.0	\$0.0	\$0.0	\$312.7
Indirect Inter-Firm Sales	\$67.4	\$7.7	\$1.9	\$5.4	\$82.5
Induced Inter-Firm Sales	\$362.1	\$16.1	\$4.9	\$18.6	\$401.6
<b>Total Inter-Firm Sales</b>	<b>\$742.2</b>	<b>\$23.8</b>	<b>\$6.8</b>	<b>\$24.1</b>	<b>\$796.9</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Inter-Firm Sales	\$42.7	\$0.0	\$0.0	\$0.0	\$42.7
Indirect Inter-Firm Sales	\$9.3	\$1.1	\$0.3	\$0.7	\$11.3
Induced Inter-Firm Sales	\$49.6	\$2.2	\$0.7	\$2.4	\$54.8
<b>Total Inter-Firm Sales</b>	<b>\$101.5</b>	<b>\$3.2</b>	<b>\$0.9</b>	<b>\$3.1</b>	<b>\$108.8</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Inter-Firm Sales	\$0.0	\$24.5	\$0.0	\$0.0	\$24.5
Indirect Inter-Firm Sales	\$1.4	\$4.4	\$0.1	\$0.5	\$6.4
Induced Inter-Firm Sales	\$4.2	\$25.2	\$0.5	\$1.7	\$31.5
<b>Total Inter-Firm Sales</b>	<b>\$5.6</b>	<b>\$54.1</b>	<b>\$0.6</b>	<b>\$2.2</b>	<b>\$62.5</b>

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Inter-Firm Sales	\$0.0	\$0.0	\$0.7	\$0.0	\$0.7
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.1	\$0.0	\$0.2
Induced Inter-Firm Sales	\$0.1	\$0.0	\$0.7	\$0.1	\$0.9
<b>Total Inter-Firm Sales</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$1.5</b>	<b>\$0.1</b>	<b>\$1.8</b>

**Figure 35: Inter-Firm Sales Associated with Operations – All Campuses and Ten-Year Average**



## 5.0 Outputs – Sponsored Research – All Campuses

The direct, indirect, and induced economic impacts estimated for the sponsored research performed at all MUN campuses are described below. The specific economic impacts analyzed were:

1. full-time-equivalent employment;
2. salaries and benefits;
3. GDP;
4. municipal revenues;
5. provincial revenues;
6. federal revenues; and
7. inter-firm sales.

### 5.1 Outputs – Sponsored Research– All Campuses - Employment

The employment impacts for sponsored-research expenditures undertaken at MUN by campus are presented in Table 42 and Figure 36. In addition to considering the direct, indirect, and induced

impacts, this analysis evaluated the employment impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

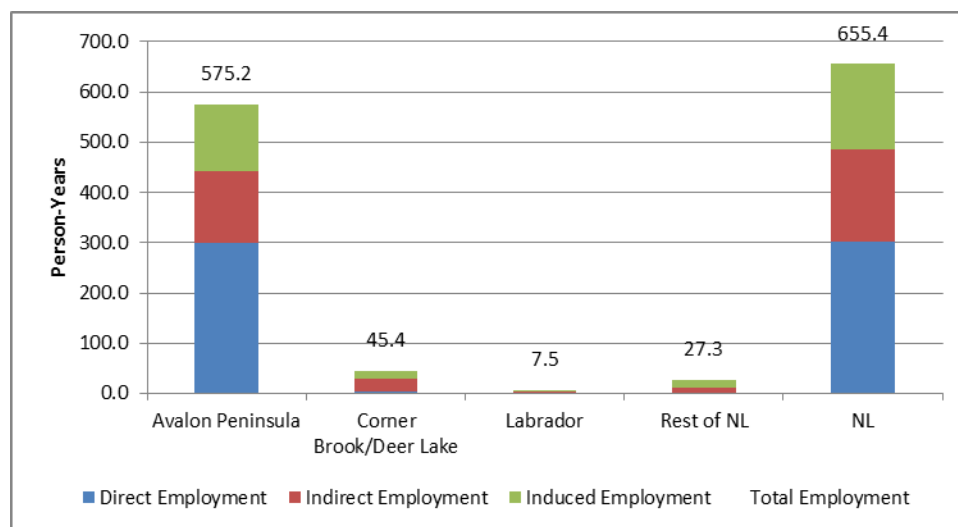
The expenditures on sponsored research, across all of its campuses, have brought about 655 full-time-equivalent jobs annually within NL. This consisted of 303 direct jobs at the university, 184 jobs created in businesses that supply goods and services to MUN and 169 additional jobs in the services sector. The majority, 87.8%, were created on the Avalon Peninsula, the Corner Brook/Deer Lake region created 6.9%, less than 1% of the jobs were created in Labrador, and the employment spread throughout the rest of the island accounted for the remaining 4.2% .

The analysis of total employment by campus revealed that the St. John's campus represented 91.4% of the total employment (599 of 655 person-years) from sponsored research. A further 7.7% of the employment (51 person-years) flowed from the Marine Institute, while the Grenfell campus was the source for 0.9% of the employment (6 person-years). None of total employment for sponsored research was created in Labrador.

**Table 42: Employment Associated with Sponsored Research – All Campuses and Ten-Year Average (Person-Years)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Employment	300.4	2.7	0.0	0.0	303.1
Indirect Employment	141.1	27.0	3.8	11.9	183.8
Induced Employment	133.6	15.8	3.7	15.4	168.5
<b>Total Employment</b>	<b>575.2</b>	<b>45.4</b>	<b>7.5</b>	<b>27.3</b>	<b>655.4</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Employment	277.0	0.0	0.0	0.0	277.0
Indirect Employment	129.7	23.9	3.5	10.8	168.0
Induced Employment	122.9	13.7	3.4	14.1	154.0
<b>Total Employment</b>	<b>529.6</b>	<b>37.6</b>	<b>6.9</b>	<b>24.9</b>	<b>599.0</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Employment	23.4	0.0	0.0	0.0	23.4
Indirect Employment	11.0	2.0	0.3	0.9	14.2
Induced Employment	10.4	1.2	0.3	1.2	13.0
<b>Total Employment</b>	<b>44.7</b>	<b>3.2</b>	<b>0.6</b>	<b>2.1</b>	<b>50.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Employment	0.0	2.7	0.0	0.0	2.7
Indirect Employment	0.5	1.0	0.0	0.1	1.6
Induced Employment	0.4	0.9	0.0	0.2	1.5
<b>Total Employment</b>	<b>0.8</b>	<b>4.6</b>	<b>0.1</b>	<b>0.3</b>	<b>5.8</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Employment	0.0	0.0	0.0	0.0	0.0
Indirect Employment	0.0	0.0	0.0	0.0	0.0
Induced Employment	0.0	0.0	0.0	0.0	0.0
<b>Total Employment</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Figure 36: Employment Associated with Sponsored Research – All Campuses and Ten-Year Average



## 5.2 Outputs – Sponsored Research – All Campuses – Salaries and Benefits

The salaries and benefits by campus for sponsored research expenditures are shown in Table 43 and Figure 37. In addition to analyzing the impacts by their direct, indirect and induced components, this analysis assessed the salaries and benefits impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The sponsored research expenditures for MUN, across all of its campuses, have paid \$38 million in salaries and benefits to NL workers. This consisted of \$24 million in direct salaries and benefits, \$8 million in salaries and benefits paid by firms that supply goods and services to MUN, and \$6 million in salaries and benefits earned by employees in the services sector. The majority of these salaries and benefits, 91.0%, were generated on the Avalon Peninsula, while 5.0% accrued to individuals residing in the Corner Brook/Deer Lake region, less than 1% went to individuals in the Labrador region, and the remaining 2.9% of the salaries and benefits were distributed throughout the rest of the island.

The analysis of total salaries and benefits emanating from sponsored research revealed that 91.5% of the total (\$35 million of \$38 million) were attributed to the St. John's campus, 7.7% (\$2.9 million) were estimated for the Marine Institute, while the Grenfell campus brought about 0.8% (\$0.3 million). Very little of the salaries and benefits (\$1 million) were earned in Labrador.

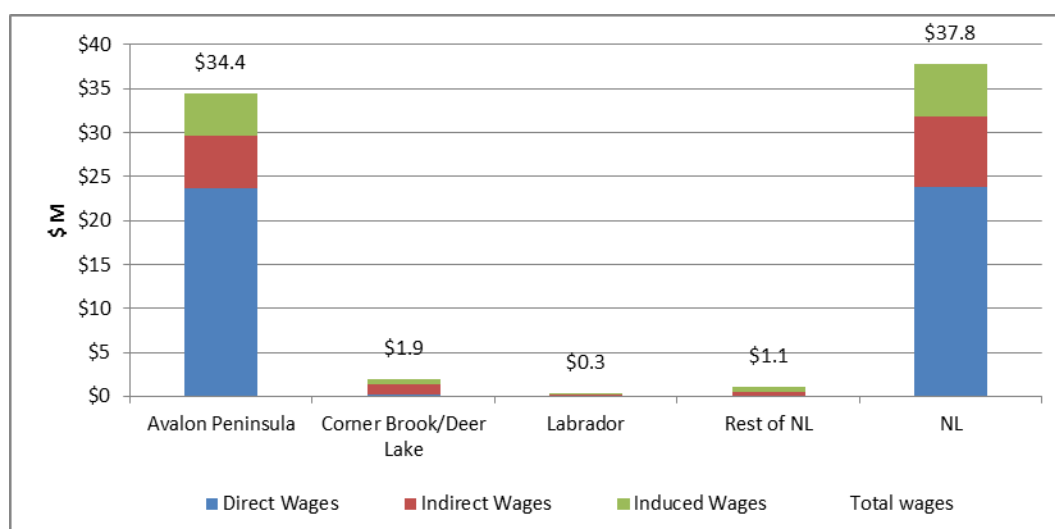
Table 43: Salaries and Benefits Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Annual Average Over 10 Years – All Campuses					
Direct Salaries/Benefits	\$23.7	\$0.2	\$0.0	\$0.0	\$23.9
Indirect Salaries/Benefits	\$6.1	\$1.2	\$0.2	\$0.5	\$8.0
Induced Salaries/Benefits	\$4.7	\$0.6	\$0.2	\$0.6	\$6.0
<b>Total Salaries/Benefits</b>	<b>\$34.4</b>	<b>\$1.9</b>	<b>\$0.3</b>	<b>\$1.1</b>	<b>\$37.8</b>



	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Salaries/Benefits	\$21.8	\$0.0	\$0.0	\$0.0	\$21.8
Indirect Salaries/Benefits	\$5.6	\$1.0	\$0.2	\$0.5	\$7.3
Induced Salaries/Benefits	\$4.3	\$0.5	\$0.1	\$0.5	\$5.5
<b>Total Salaries/Benefits</b>	<b>\$31.7</b>	<b>\$1.5</b>	<b>\$0.3</b>	<b>\$1.0</b>	<b>\$34.6</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Salaries/Benefits	\$1.8	\$0.0	\$0.0	\$0.0	\$1.8
Indirect Salaries/Benefits	\$0.5	\$0.1	\$0.0	\$0.0	\$0.6
Induced Salaries/Benefits	\$0.4	\$0.0	\$0.0	\$0.0	\$0.5
<b>Total Salaries/Benefits</b>	<b>\$2.7</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$2.9</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Salaries/Benefits	\$0.0	\$0.2	\$0.0	\$0.0	\$0.2
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.3</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 37: Salaries and Benefits Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)



### 5.3 Outputs – Sponsored Research – All Campuses – GDP

The GDP impacts by campus for MUN's sponsored research expenditures are provided in Table 44 and Figure 38. In addition to analyzing the direct, indirect and induced impacts, this analysis assessed the GDP impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

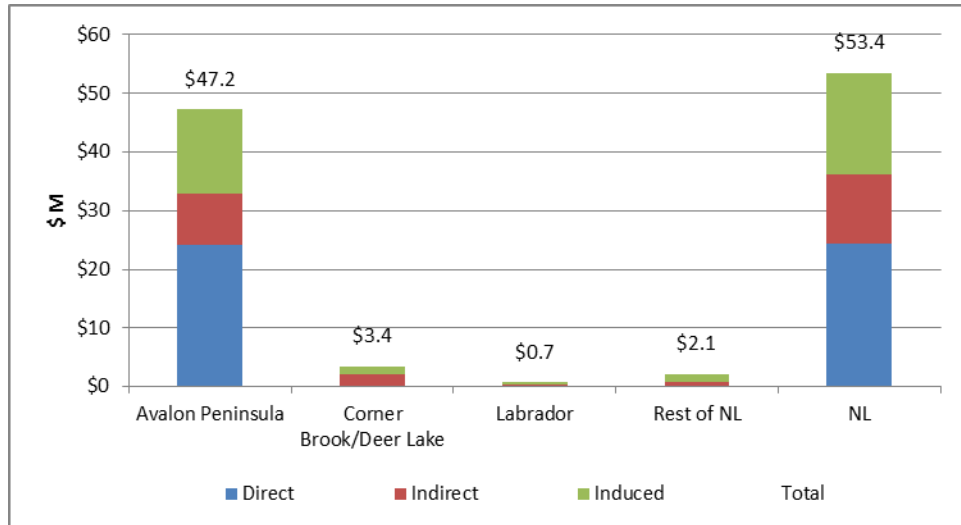
The sponsored research expenditures for MUN, across all of its campuses, have resulted in an estimated \$53.4 million in NL GDP. This consisted of \$24.3 million in direct GDP, \$11.9 million in indirect GDP through businesses that supply goods and services to the university, and \$17.2 million in induced GDP through the services sector. The majority of the GDP, 88.4%, manifested through MUN's sponsored research, was realized in the Avalon Peninsula region. The Corner Brook/Deer Lake region accounted for 6.3% of the GDP, 1.3% of the GDP was attributed to activities in Labrador, and the remaining 3.9% of the GDP was spread throughout the rest of the island.

The analysis of total GDP by campus associated with sponsored research indicates that 91.4% of the total (\$48.8 million of \$53.4 million) was generated by the St. John's campus. A further 7.7% (\$4.1 million) resulted from sponsored research undertaken at the Marine Institute, while the Grenfell campus generated 0.9% of total GDP (\$0.5 million).

**Table 44: GDP Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct GDP	\$24.1	\$0.2	\$0.0	\$0.0	\$24.3
Indirect GDP	\$8.9	\$1.8	\$0.3	\$0.9	\$11.9
Induced GDP	\$14.3	\$1.4	\$0.4	\$1.2	\$17.2
<b>Total GDP</b>	<b>\$47.2</b>	<b>\$3.4</b>	<b>\$0.7</b>	<b>\$2.1</b>	<b>\$53.4</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct GDP	\$22.2	\$0.0	\$0.0	\$0.0	\$22.2
Indirect GDP	\$8.2	\$1.6	\$0.3	\$0.8	\$10.9
Induced GDP	\$13.1	\$1.2	\$0.3	\$1.1	\$15.7
<b>Total GDP</b>	<b>\$43.5</b>	<b>\$2.8</b>	<b>\$0.6</b>	<b>\$1.9</b>	<b>\$48.8</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct GDP	\$1.9	\$0.0	\$0.0	\$0.0	\$1.9
Indirect GDP	\$0.7	\$0.1	\$0.0	\$0.1	\$0.9
Induced GDP	\$1.1	\$0.1	\$0.0	\$0.1	\$1.3
<b>Total GDP</b>	<b>\$3.7</b>	<b>\$0.2</b>	<b>\$0.1</b>	<b>\$0.2</b>	<b>\$4.1</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct GDP	\$0.0	\$0.2	\$0.0	\$0.0	\$0.2
Indirect GDP	\$0.0	\$0.1	\$0.0	\$0.0	\$0.1
Induced GDP	\$0.0	\$0.1	\$0.0	\$0.0	\$0.2
<b>Total GDP</b>	<b>\$0.1</b>	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.5</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total GDP</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 38: GDP Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)



#### 5.4 Outputs – Sponsored Research – All Campuses – Municipal Revenues

The municipal revenue impacts for MUN's sponsored research expenditures by campus are illustrated in Table 45 and Figure 39. In addition to considering the direct, indirect, and induced impacts, this analysis evaluated the municipal revenue impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of the island.

MUN's sponsored research expenditures, across all of its campuses, created an estimated in \$0.70 million in revenues to NL municipalities. This was comprised of no direct municipal revenues, \$0.7 million in municipal revenues from firms that supply goods and services to the university, and \$0.64 million in municipal revenues from the services. The majority of the municipal revenues, 88.6%, were attributed to communities in the Avalon region, 5.7% accrued to local government in the Corner Brook/Deer Lake region, less than 1.4% were received in Labrador, and the remaining 4.3% of the municipal revenues were spread throughout the rest of the island.

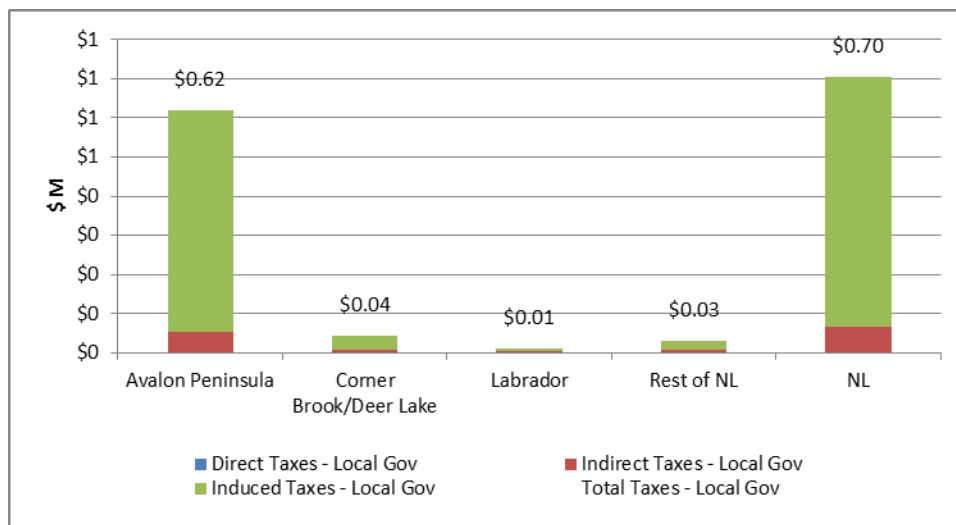
The analysis of total municipal revenues by campus indicated that 91.4% of the total municipal revenues (\$0.64 million of \$0.7 million) stemmed from the St. John's campus. A further 11.1% (\$0.05 million) flowed from the operations of the Marine Institute, while 1.4% (\$0.01 million) resulted from the sponsored research at the Grenfell campus. None of total municipal revenues for MUN's sponsored research (\$0.01 million) materialized in Labrador.

Table 45: Municipal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Indirect Municipal Revenues	\$0.05	\$0.01	\$0.00	\$0.01	\$0.07
Induced Municipal Revenues	\$0.57	\$0.04	\$0.01	\$0.02	\$0.64
<b>Total Municipal Revenues</b>	<b>\$0.62</b>	<b>\$0.04</b>	<b>\$0.01</b>	<b>\$0.03</b>	<b>\$0.70</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Direct Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Indirect Municipal Revenues	\$0.05	\$0.00	\$0.00	\$0.01	\$0.06
Induced Municipal Revenues	\$0.52	\$0.03	\$0.01	\$0.02	\$0.58
<b>Total Municipal Revenues</b>	<b>\$0.57</b>	<b>\$0.04</b>	<b>\$0.01</b>	<b>\$0.03</b>	<b>\$0.64</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01
Induced Municipal Revenues	\$0.04	\$0.00	\$0.00	\$0.00	\$0.05
<b>Total Municipal Revenues</b>	<b>\$0.05</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.05</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01
<b>Total Municipal Revenues</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.01</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 39: Municipal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)



## 5.5 Outputs – Sponsored Research – All Campuses – Provincial Revenues

The provincial tax impacts by campus for sponsored research expenditures are given in Table 46 and Figure 40. In addition to considering the direct, indirect and induced impacts, this analysis estimated the provincial tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

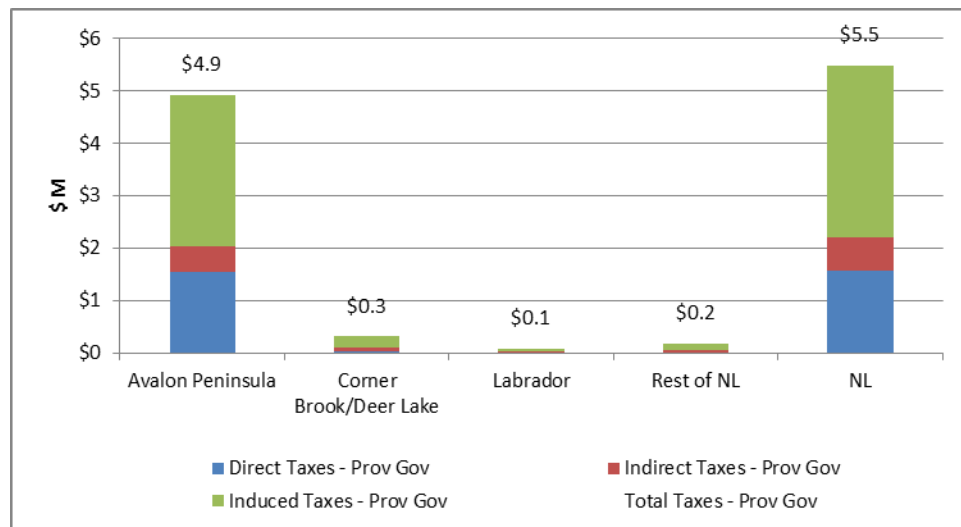
MUN's sponsored research expenditures, across all of its campuses, have resulted in \$5.5 million in provincial revenues being generated within NL. This consisted of \$1.6 million in direct provincial revenues, \$0.6 million in provincial revenues collected from firms that supply goods and services to the university, and \$3.3 million in provincial revenues derived from the services sector. The majority of the provincial revenues, 89.1%, were collected on the Avalon Peninsula region. The Corner Brook/Deer Lake region accounted for 5.5%, less than 1.8% came from Labrador, and the remaining 3.6% of the provincial revenues was generated throughout the rest of the island.

The analysis of total provincial revenues by campus indicated that the St. John's campus was responsible for 90.0% of the total provincial revenues (\$5.0 million of \$5.5 million) that resulted from sponsored research. A further 7.3% (\$0.4 million) were estimated for sponsored research at the Marine Institute, while 0.9% (\$0.05 million) were created through sponsored research at the Grenfell campus.

**Table 46: Provincial Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Provincial Revenues	\$1.5	\$0.0	\$0.0	\$0.0	\$1.6
Indirect Provincial Revenues	\$0.5	\$0.1	\$0.0	\$0.0	\$0.6
Induced Provincial Revenues	\$2.9	\$0.2	\$0.0	\$0.1	\$3.3
<b>Total Provincial Revenues</b>	<b>\$4.9</b>	<b>\$0.3</b>	<b>\$0.1</b>	<b>\$0.2</b>	<b>\$5.5</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Provincial Revenues	\$1.4	\$0.0	\$0.0	\$0.0	\$1.4
Indirect Provincial Revenues	\$0.5	\$0.1	\$0.0	\$0.0	\$0.6
Induced Provincial Revenues	\$2.7	\$0.2	\$0.0	\$0.1	\$3.0
<b>Total Provincial Revenues</b>	<b>\$4.5</b>	<b>\$0.2</b>	<b>\$0.1</b>	<b>\$0.2</b>	<b>\$5.0</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
<b>Total Provincial Revenues</b>	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.4</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Provincial Revenues	\$0.00	\$0.01	\$0.00	\$0.00	\$0.01
Indirect Provincial Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01
Induced Provincial Revenues	\$0.00	\$0.02	\$0.00	\$0.00	\$0.03
<b>Total Provincial Revenues</b>	<b>\$0.01</b>	<b>\$0.04</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.05</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 40: Provincial Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)



## 5.6 Outputs – Sponsored Research – All Campuses – Federal Revenues

The federal revenue impacts by campus for MUN's sponsored research expenditures are given in Table 47 and Figure 41. In addition to considering the direct, indirect and induced impacts, this analysis estimated the federal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for Labrador, and for the rest of the island.

MUN's sponsored research expenditures, across all of its campuses, have resulted in \$4.4 million in federal revenues being generated within NL. This consisted of \$1.9 million in direct federal revenues, \$0.6 million in federal revenues collected from firms that supply goods and services to the university, and \$1.9 million in federal revenues derived from the services sector. The majority of the federal revenues, 90.9%, occurred in the Avalon region, the Corner Brook/Deer Lake region accounted for 4.5%, none came from Labrador, and the remaining 2.3% was generated throughout the rest of the island.

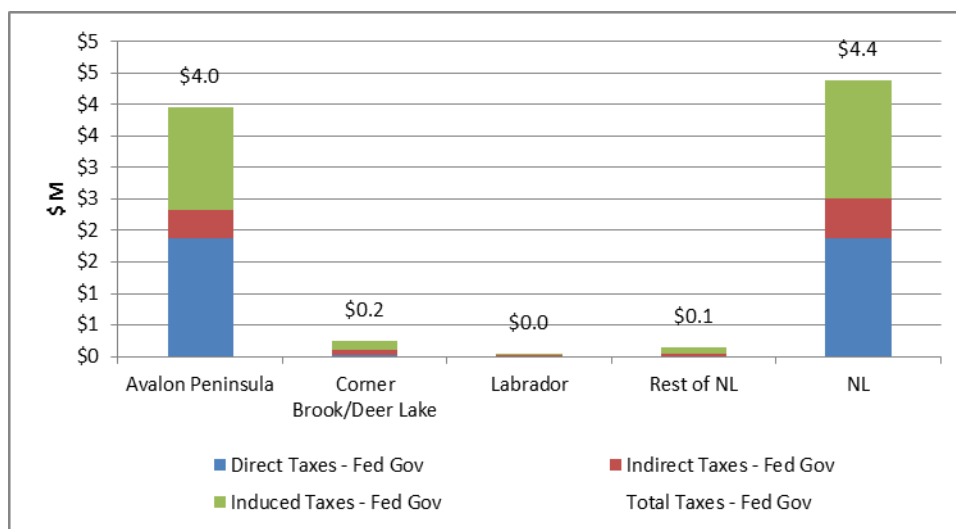
The analysis of total federal revenues by campus indicates that 90.9% of the total federal revenues (\$4.0 million of \$4.4 million) were accounted for by the St. John's campus. A further 6.8% (\$0.3 million) resulted from the sponsored research performed at the Marine Institute, while Grenfell campus generated 0.9% of the federal revenues (\$0.04 million).

Table 47: Federal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Federal Revenues	\$1.9	\$0.0	\$0.0	\$0.0	\$1.9
Indirect Federal Revenues	\$0.5	\$0.1	\$0.0	\$0.0	\$0.6
Induced Federal Revenues	\$1.6	\$0.1	\$0.0	\$0.1	\$1.9
<b>Total Federal Revenues</b>	<b>\$4.0</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$4.4</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Federal Revenues	\$1.7	\$0.0	\$0.0	\$0.0	\$1.7
Indirect Federal Revenues	\$0.4	\$0.1	\$0.0	\$0.0	\$0.6

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Induced Federal Revenues	\$1.5	\$0.1	\$0.0	\$0.1	\$1.7
<b>Total Federal Revenues</b>	<b>\$3.6</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$4.0</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Federal Revenues</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.3</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Federal Revenues	\$0.00	\$0.02	\$0.00	\$0.00	\$0.02
Indirect Federal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01
Induced Federal Revenues	\$0.00	\$0.01	\$0.00	\$0.00	\$0.02
<b>Total Federal Revenues</b>	<b>\$0.01</b>	<b>\$0.03</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.04</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 41: Federal Revenues Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)



## 5.7 Outputs – Sponsored Research – All Campuses – Inter-Firm Sales

The inter-firm sales impacts for MUN's sponsored research expenditures by campus are displayed in Table 48 and Figure 42. In addition to considering the direct, indirect and induced impacts, this analysis estimated the inter-firm sales impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region and for the rest of the province.

MUN's sponsored research expenditures, across all of its campuses, have resulted in \$137 million in inter-firm sales being generated within NL. This consisted of \$54 million in direct inter-firm sales, \$25 million in inter-firm sales collected from firms that supply goods and services to the university, and \$58

million in inter-firm sales derived from the services sector. The majority of the inter-firm sales created by the sponsored research, 89.6%, were derived on the Avalon Peninsula region. The Corner Brook/Deer Lake region accounted for 5.7%, 1.2% came from Labrador, and the remaining 3.5% of the inter-firm sales were generated throughout the rest of the island.

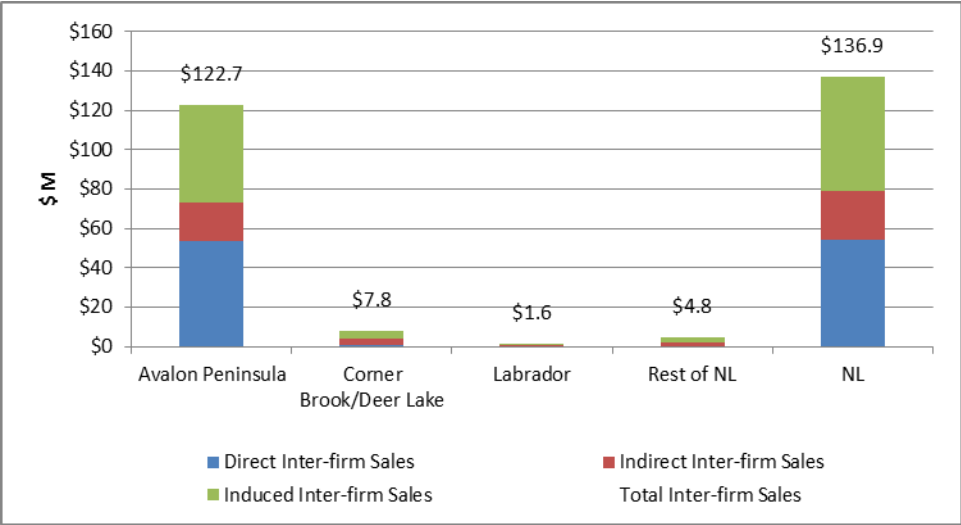
The analysis of total inter-firm sales by campus indicated that the St. John's campus was responsible for 91.4% of the total inter-firm sales (\$125.1 million of \$136.9 million) that resulted from sponsored research, 7.7% of the inter-firm sales (\$10.6 million) were from the Marine Institute, and 0.9% of the inter-firm sales (\$1.2 million) were from the Grenfell campus.

**Table 48: Inter-Firm Sales Associated with Sponsored Research – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Inter-Firm Sales	\$53.6	\$0.5	\$0.0	\$0.0	\$54.1
Indirect Inter-Firm Sales	\$19.3	\$3.3	\$0.8	\$1.7	\$25.0
Induced Inter-Firm Sales	\$49.7	\$4.0	\$0.9	\$3.1	\$57.8
<b>Total Inter-Firm Sales</b>	<b>\$122.7</b>	<b>\$7.8</b>	<b>\$1.6</b>	<b>\$4.8</b>	<b>\$136.9</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Inter-Firm Sales	\$49.4	\$0.0	\$0.0	\$0.0	\$49.4
Indirect Inter-Firm Sales	\$17.8	\$2.9	\$0.7	\$1.5	\$22.9
Induced Inter-Firm Sales	\$45.8	\$3.4	\$0.8	\$2.9	\$52.8
<b>Total Inter-Firm Sales</b>	<b>\$113.0</b>	<b>\$6.3</b>	<b>\$1.5</b>	<b>\$4.4</b>	<b>\$125.1</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Inter-Firm Sales	\$4.2	\$0.0	\$0.0	\$0.0	\$4.2
Indirect Inter-Firm Sales	\$1.5	\$0.2	\$0.1	\$0.1	\$1.9
Induced Inter-Firm Sales	\$3.9	\$0.3	\$0.1	\$0.2	\$4.5
<b>Total Inter-Firm Sales</b>	<b>\$9.5</b>	<b>\$0.5</b>	<b>\$0.1</b>	<b>\$0.4</b>	<b>\$10.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Inter-Firm Sales	\$0.0	\$0.5	\$0.0	\$0.0	\$0.5
Indirect Inter-Firm Sales	\$0.1	\$0.1	\$0.0	\$0.0	\$0.2
Induced Inter-Firm Sales	\$0.1	\$0.4	\$0.0	\$0.0	\$0.5
<b>Total Inter-Firm Sales</b>	<b>\$0.2</b>	<b>\$1.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.2</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Inter-Firm Sales</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>



Figure 42: Inter-Firm Sales Associated with Sponsored Research – All Campuses and Ten-Year Average



## 6.0 Outputs – Infrastructure/Equipment – All Campuses

The direct, indirect, and induced economic impacts estimated for infrastructure/equipment spending at all MUN campuses are described below. The specific economic impacts analyzed were:

1. employment;
2. salaries and benefits;
3. GDP;
4. municipal revenues;
5. provincial revenues;
6. federal revenues; and
7. inter-firm sales.

### 6.1 Outputs – Infrastructure/Equipment – All Campuses - Employment

The employment impacts for infrastructure and equipment expenditures at MUN by campus are presented in Table 49 and Figure 43 below. In addition to considering the direct, indirect, and induced impacts, the analysis evaluated the employment impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The infrastructure and equipment expenditures, across all campuses, have resulted in 251 full-time-equivalent jobs annually within NL. This consisted of 165 direct jobs at the university, 32 jobs created in businesses that supply goods and services to the University, and 54 additional jobs in the services sector. The majority of the jobs, 68.6%, were generated on the Avalon Peninsula, while the Corner Brook/Deer Lake region received 17.8% of the jobs and Labrador accounted for 2.0%. The rest of the island accounted for the remaining 11.6% of the jobs.

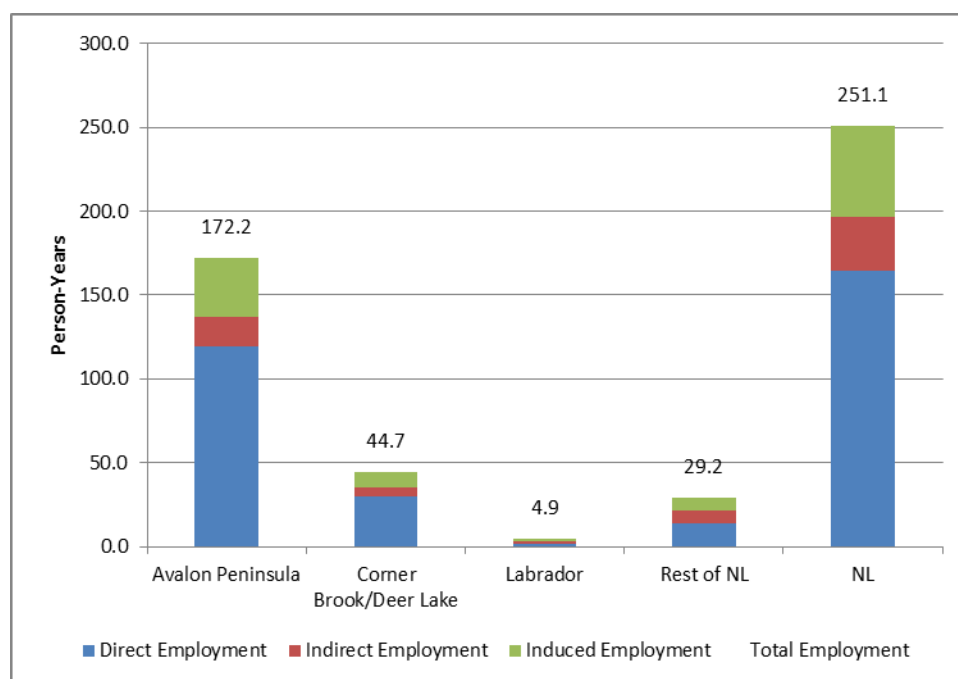
The analysis of total employment by campus revealed that the St. John's campus accounted 75.8% of the total employment (190.3 person-years of 251.1 person-years). A further 3.8% of the employment (9.6 person-years) flowed from the infrastructure and equipment expenditures of the Marine Institute, and 20.4% of the employment was from the Grenfell campus. None of the total employment for infrastructure and equipment expenditures was created in Labrador.

**Table 49: Employment Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Employment	119.1	30.0	1.9	13.7	164.6
Indirect Employment	17.9	5.1	1.4	7.7	32.1
Induced Employment	35.2	9.6	1.7	7.9	54.4
<b>Total Employment</b>	<b>172.2</b>	<b>44.7</b>	<b>4.9</b>	<b>29.2</b>	<b>251.1</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Employment	111.6	3.5	1.4	9.1	125.6
Indirect Employment	14.5	3.0	1.1	5.6	24.1

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Induced Employment	30.9	3.0	1.2	5.5	40.6
<b>Total Employment</b>	<b>157.0</b>	<b>9.5</b>	<b>3.6</b>	<b>20.2</b>	<b>190.3</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Employment	5.5	0.2	0.1	0.3	6.1
Indirect Employment	0.9	0.2	0.1	0.2	1.5
Induced Employment	1.6	0.2	0.1	0.3	2.0
<b>Total Employment</b>	<b>8.0</b>	<b>0.6</b>	<b>0.2</b>	<b>0.8</b>	<b>9.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Employment	2.0	26.3	0.4	4.2	32.9
Indirect Employment	2.5	1.9	0.2	1.9	6.5
Induced Employment	2.7	6.5	0.4	2.1	11.7
<b>Total Employment</b>	<b>7.2</b>	<b>34.6</b>	<b>1.1</b>	<b>8.3</b>	<b>51.1</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Employment	0.0	0.0	0.0	0.0	0.0
Indirect Employment	0.0	0.0	0.0	0.0	0.0
Induced Employment	0.0	0.0	0.0	0.0	0.0
<b>Total Employment</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Figure 43: Employment Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average



## 6.2 Outputs – Infrastructure/Equipment – All Campuses – Salaries and Benefits

The salaries and benefits impacts for infrastructure and equipment expenditures at MUN by campus are shown in Table 50 and Figure 44 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis evaluated the salaries and benefits impacts for the

province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of Newfoundland.

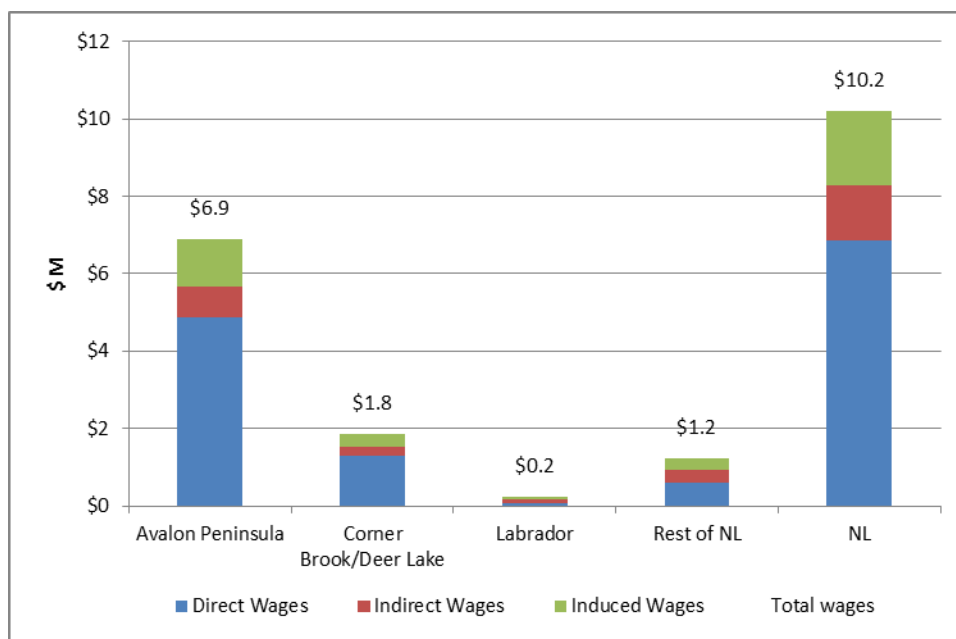
The infrastructure and equipment expenditures, across all campuses, have resulted in \$10.2 million in salaries and benefits being paid within NL. This consisted of \$6.9 direct salaries and benefits, \$1.4 million in salaries and benefits paid by firms that supply goods and services to the university, and \$1.9 million in salaries and benefits paid by firms in the services sector. The majority of the salaries and benefits, 67.6%, occurred within the Avalon Peninsula, 17.6% accrued to individuals residing in the Corner Brook/Deer Lake region, less than 2.0% was paid to individuals in the Labrador region, and the remaining 11.8% of the salaries and benefits was spread throughout the rest of the island.

The analysis of total salaries and benefits by campus revealed that 75.5% of the total salaries and benefits (\$7.7 million of \$10.2 million) were accounted for by the St. John's campus. A further 3.9% (\$0.4 million) resulted from the infrastructure and equipment expenditures of the Marine Institute, while 20.6% (\$2.1 million) were generated by the Grenfell campus. None of total salaries and benefits for infrastructure and equipment was traced to Labrador.

**Table 50: Salaries and Benefits Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Salaries/Benefits	\$4.9	\$1.3	\$0.1	\$0.6	\$6.9
Indirect Salaries/Benefits	\$0.8	\$0.2	\$0.1	\$0.4	\$1.4
Induced Salaries/Benefits	\$1.2	\$0.3	\$0.1	\$0.3	\$1.9
<b>Total Salaries/Benefits</b>	<b>\$6.9</b>	<b>\$1.8</b>	<b>\$0.2</b>	<b>\$1.2</b>	<b>\$10.2</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Salaries/Benefits	\$4.6	\$0.2	\$0.1	\$0.4	\$5.2
Indirect Salaries/Benefits	\$0.6	\$0.1	\$0.1	\$0.3	\$1.1
Induced Salaries/Benefits	\$1.1	\$0.1	\$0.0	\$0.2	\$1.4
<b>Total Salaries/Benefits</b>	<b>\$6.3</b>	<b>\$0.4</b>	<b>\$0.2</b>	<b>\$0.8</b>	<b>\$7.7</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Salaries/Benefits	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Induced Salaries/Benefits	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Salaries/Benefits</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.4</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Salaries/Benefits	\$0.1	\$1.1	\$0.0	\$0.2	\$1.4
Indirect Salaries/Benefits	\$0.1	\$0.1	\$0.0	\$0.1	\$0.3
Induced Salaries/Benefits	\$0.1	\$0.2	\$0.0	\$0.1	\$0.4
<b>Total Salaries/Benefits</b>	<b>\$0.3</b>	<b>\$1.4</b>	<b>\$0.0</b>	<b>\$0.3</b>	<b>\$2.1</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 44: Salaries and Benefits Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)



### 6.3 Outputs – Infrastructure/Equipment – All Campuses – GDP

The GDP impacts for infrastructure and equipment expenditures at MUN by campus are provided in Table 51 and Figure 45 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis considered the GDP impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of the province.

The infrastructure and equipment expenditures, across all campuses, have resulted in \$19.4 million in GDP generated within NL. This consisted of \$11.5 million in direct GDP, \$2.4 million in GDP through firms that supply goods and services to the university, and \$5.5 million in GDP through the services sector. The majority of the GDP, 68.0%, was generated in the Avalon Peninsula region, with 18.6% found in the Corner Brook/Deer Lake region, 2.1% were found in the Labrador region, and the remaining 11.3% of the GDP were felt throughout the rest of the island.

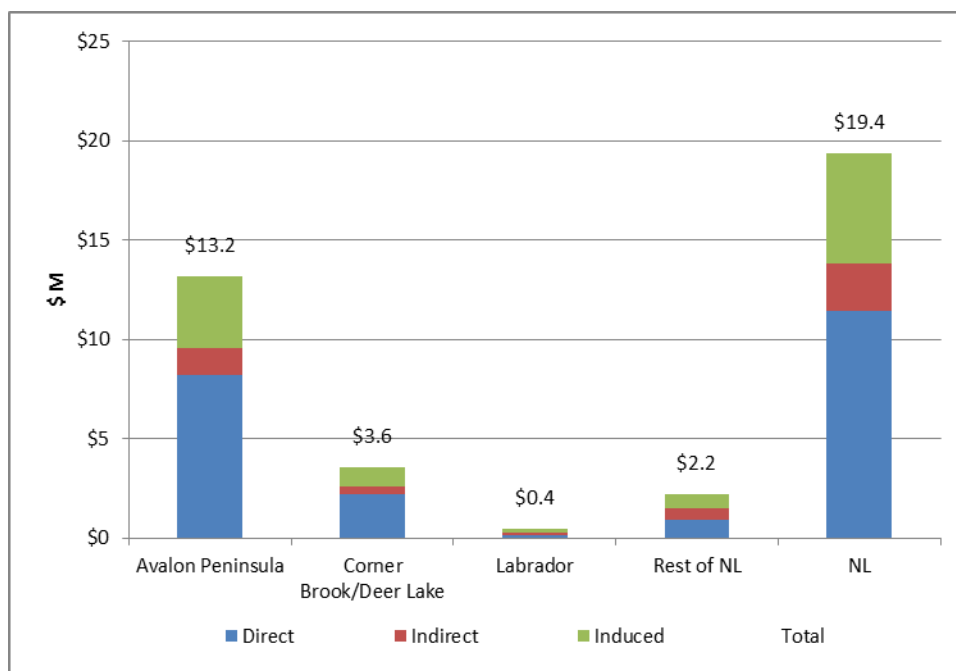
The analysis of total GDP by campus indicated that 75.3% of the total GDP (\$14.6 million of \$19.4 million) was accounted for by the St. John's campus and a further 3.6% (\$0.7 million) was found at the Marine Institute, while 20.6% (\$4.0 million) was generated by the Grenfell campus. None of total GDP for infrastructure and equipment expenditures was associated with Labrador.

Table 51: GDP Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Annual Average Over 10 Years – All Campuses					
Direct GDP	\$8.2	\$2.2	\$0.1	\$0.9	\$11.5

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Indirect GDP	\$1.3	\$0.4	\$0.1	\$0.6	\$2.4
Induced GDP	\$3.7	\$1.0	\$0.2	\$0.7	\$5.5
<b>Total GDP</b>	<b>\$13.2</b>	<b>\$3.6</b>	<b>\$0.4</b>	<b>\$2.2</b>	<b>\$19.4</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct GDP	\$7.7	\$0.3	\$0.1	\$0.6	\$8.7
Indirect GDP	\$1.0	\$0.2	\$0.1	\$0.4	\$1.8
Induced GDP	\$3.2	\$0.3	\$0.1	\$0.5	\$4.1
<b>Total GDP</b>	<b>\$12.0</b>	<b>\$0.8</b>	<b>\$0.3</b>	<b>\$1.5</b>	<b>\$14.6</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct GDP	\$0.4	\$0.0	\$0.0	\$0.0	\$0.4
Indirect GDP	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced GDP	\$0.2	\$0.0	\$0.0	\$0.0	\$0.2
<b>Total GDP</b>	<b>\$0.6</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.7</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct GDP	\$0.1	\$1.9	\$0.0	\$0.3	\$2.3
Indirect GDP	\$0.2	\$0.1	\$0.0	\$0.1	\$0.5
Induced GDP	\$0.3	\$0.7	\$0.0	\$0.2	\$1.2
<b>Total GDP</b>	<b>\$0.6</b>	<b>\$2.7</b>	<b>\$0.1</b>	<b>\$0.6</b>	<b>\$4.0</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total GDP</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 45: GDP Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)



## 6.4 Outputs – Infrastructure/Equipment – All Campuses – Municipal Revenues

The municipal tax impacts for infrastructure and equipment expenditures at MUN by campus are illustrated in Table 52 and Figure 46 below. In addition to analyzing the impacts based on their direct, indirect, and induced components, the analysis examined the municipal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of the province.

The infrastructure and equipment expenditures for MUN, across all of its campuses, have resulted in \$0.37 million in municipal revenues generated within NL. This consisted of \$0.16 million in direct municipal revenues, \$0.01 million in municipal revenues from firms that supply goods and services to the university, and \$0.2 million in municipal revenues from the services sector. The majority, 73.0% of the municipal revenues, were generated within the Avalon Peninsula region, while 18.9% accrued to local governments in the Corner Brook/Deer Lake region, 2.7% accrued to municipalities in Labrador, and the remaining 8.1% of the municipal revenues were spread throughout the rest of the island.

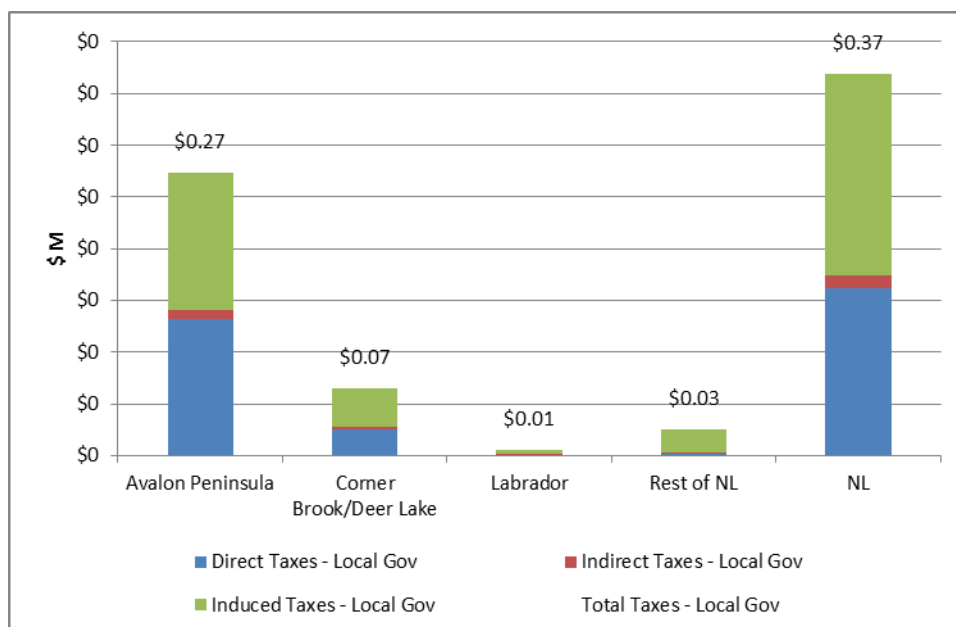
The analysis of total municipal revenues by campus indicated that 75.7% of the total municipal revenues (\$0.28 million of \$0.37 million) were accounted for by the St. John's campus. A further 5.4% (\$0.02 million) resulted from the infrastructure and equipment expenditures of the Marine Institute, with 18.9% (\$0.07 million) generated by the Grenfell campus, and none was traced to Labrador.

**Table 52: Municipal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Municipal Revenues	\$0.13	\$0.03	\$0.00	\$0.00	\$0.16
Indirect Municipal Revenues	\$0.01	\$0.00	\$0.00	\$0.00	\$0.01
Induced Municipal Revenues	\$0.13	\$0.04	\$0.00	\$0.02	\$0.20
<b>Total Municipal Revenues</b>	<b>\$0.27</b>	<b>\$0.07</b>	<b>\$0.01</b>	<b>\$0.03</b>	<b>\$0.37</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Municipal Revenues	\$0.12	\$0.00	\$0.00	\$0.00	\$0.13
Indirect Municipal Revenues	\$0.01	\$0.00	\$0.00	\$0.00	\$0.01
Induced Municipal Revenues	\$0.12	\$0.01	\$0.00	\$0.01	\$0.15
<b>Total Municipal Revenues</b>	<b>\$0.25</b>	<b>\$0.01</b>	<b>\$0.00</b>	<b>\$0.02</b>	<b>\$0.28</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Municipal Revenues	\$0.01	\$0.00	\$0.00	\$0.00	\$0.01
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.01	\$0.00	\$0.00	\$0.00	\$0.01
<b>Total Municipal Revenues</b>	<b>\$0.01</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.02</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Municipal Revenues	\$0.00	\$0.02	\$0.00	\$0.00	\$0.03
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.01	\$0.03	\$0.00	\$0.01	\$0.04
<b>Total Municipal Revenues</b>	<b>\$0.01</b>	<b>\$0.05</b>	<b>\$0.00</b>	<b>\$0.01</b>	<b>\$0.07</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Direct Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 46: Municipal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)



## 6.5 Outputs – Infrastructure/Equipment – All Campuses – Provincial Revenues

The provincial tax impacts for infrastructure and equipment expenditures at MUN by campus are given in Table 53 and Figure 47 below. In addition to separating the impacts into their direct, indirect, and induced components, the analysis estimated the provincial tax impacts for the province as whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of the province.

The infrastructure and equipment expenditures, across all campuses, have resulted in \$2.2 million in provincial revenues generated within NL. This consisted of \$1.0 million in direct provincial revenues, \$0.2 million in provincial revenues from firms that supply goods and services to the university and \$1.0 million in provincial revenues from the services sector. The majority, 68.2%, occurred in the Avalon region, 18.2% was generated within the Corner Brook/Deer Lake region, none came from Labrador, and the remaining 9.1% was generated throughout the rest of the island.

The analysis of total provincial revenues by campus indicated that 72.7% of the total provincial revenues (\$1.6 million of \$2.2 million) were accounted for by the St. John's campus, 4.5% (\$0.1 million) came from

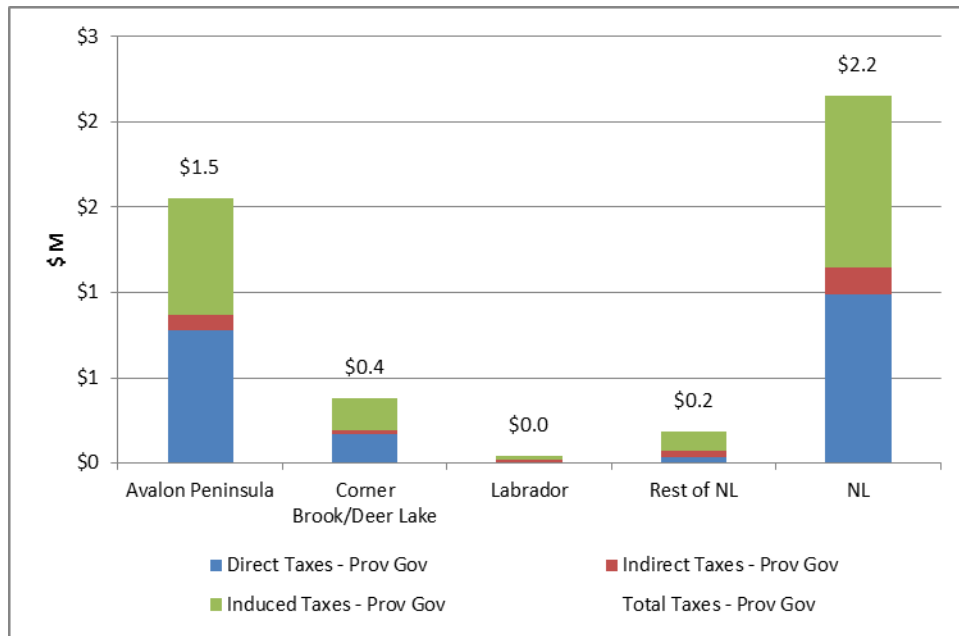


the Marine Institute, 18.2% (\$0.4 million) resulted from the Grenfell campus, and none was traced to Labrador.

**Table 53: Provincial Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Provincial Revenues	\$0.8	\$0.2	\$0.0	\$0.0	\$1.0
Indirect Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.2
Induced Provincial Revenues	\$0.7	\$0.2	\$0.0	\$0.1	\$1.0
<b>Total Provincial Revenues</b>	<b>\$1.5</b>	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$2.2</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Provincial Revenues	\$0.7	\$0.0	\$0.0	\$0.0	\$0.8
Indirect Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Provincial Revenues	\$0.6	\$0.0	\$0.0	\$0.1	\$0.8
<b>Total Provincial Revenues</b>	<b>\$1.4</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$1.6</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Provincial Revenues	\$0.0	\$0.2	\$0.0	\$0.0	\$0.2
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.1	\$0.0	\$0.0	\$0.2
<b>Total Provincial Revenues</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.4</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 47: Provincial Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)



## 6.6 Outputs – Infrastructure/Equipment – All Campuses – Federal Revenues

The federal tax impacts for infrastructure and equipment expenditures at MUN by campus are indicated in Table 54 and Figure 48 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the federal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of the island.

The infrastructure and equipment expenditures, across all campuses, have resulted in \$1.4 million in federal revenues generated within NL. This consisted of \$0.7 million in direct federal revenues, \$0.2 million in federal revenues from firms that supply goods and services to the university and \$0.6 million in federal revenues from the services sector. The majority, 71.4%, occurred in the Avalon region, 21.4% was produced within the Corner Brook/Deer Lake region, none came from Labrador, and the remaining 7.1% occurred throughout the rest of the island.

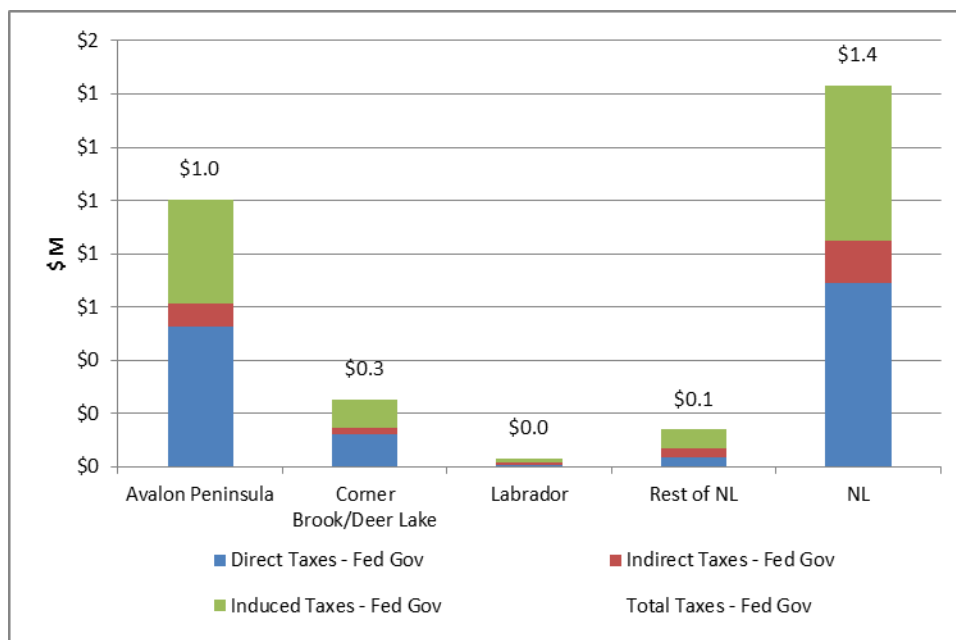
The analysis of total federal revenues by campus indicated that 78.6% of the total federal revenues (\$1.1 million of \$1.4 million) were accounted for by the St. John's campus. A further 7.1% (\$0.1 million) from resulted from the infrastructure and equipment expenditures of the Marine Institute, with 21.4% (\$0.3 million) being generated by the Grenfell campus, and only \$0.1 million of the federal revenues were traced to Labrador.

Table 54: Federal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Annual Average Over 10 Years – All Campuses					
Direct Federal Revenues	\$0.5	\$0.1	\$0.0	\$0.0	\$0.7
Indirect Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.2

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Induced Federal Revenues	\$0.4	\$0.1	\$0.0	\$0.1	\$0.6
<b>Total Federal Revenues</b>	<b>\$1.0</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$1.4</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Federal Revenues	\$0.5	\$0.0	\$0.0	\$0.0	\$0.5
Indirect Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Federal Revenues	\$0.3	\$0.0	\$0.0	\$0.0	\$0.4
<b>Total Federal Revenues</b>	<b>\$0.9</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$1.1</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Federal Revenues	\$0.0	\$0.1	\$0.0	\$0.0	\$0.1
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.1	\$0.0	\$0.0	\$0.1
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.3</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 48: Federal Revenues Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)



## 6.7 Outputs – Infrastructure/Equipment – All Campuses – Inter-Firm Sales

The inter-firm sales impacts for infrastructure and equipment expenditures at MUN by campus are displayed in Table 55 and Figure 49 below. In addition to breaking out the impacts into their direct, indirect, and induced components, the analysis estimated the inter-firm sales impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of the island.

The infrastructure and equipment expenditures for MUN, across all of its campuses, have resulted in \$61.9 million in inter-firm sales generated within NL. This consisted of \$38.6 million in direct inter-firm sales, \$5.4 million in inter-firm sales from firms that supply goods and services to the university, and \$17.9 million in inter-firm sales from the services sector. The majority, 73.2%, was generated within the Avalon Peninsula, 15.7% was enabled within the Corner Brook/Deer Lake region, 1.6% came from Labrador, and the remaining 9.4% was generated throughout the rest of the island.

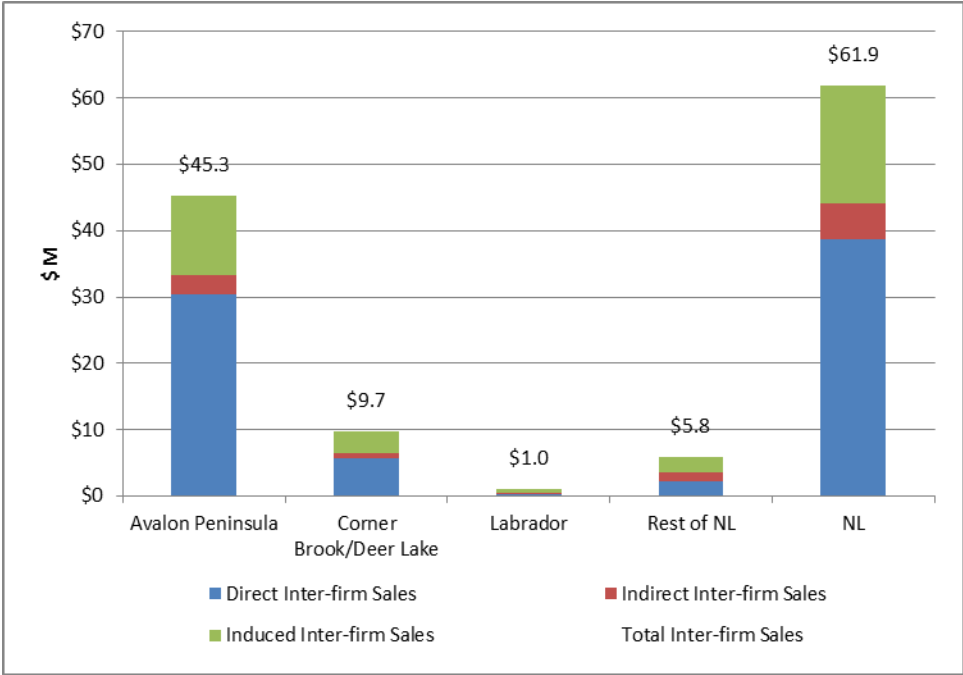
The analysis of total inter-firm sales by campus indicates that 76.4% of the total inter-firm sales (\$47.3 million of \$61.9 million) were accounted for by the St. John's campus, a further 5.7% (\$3.5 million) were created by the Marine Institute, and 17.9% (\$11.1 million) were generated by the Grenfell campus. None of total inter-firm sales for infrastructure and equipment expenditures was traced to Labrador.

**Table 55: Inter-Firm Sales Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Inter-Firm Sales	\$30.4	\$5.7	\$0.3	\$2.3	\$38.6
Indirect Inter-Firm Sales	\$3.0	\$0.8	\$0.3	\$1.3	\$5.4
Induced Inter-Firm Sales	\$11.9	\$3.3	\$0.5	\$2.2	\$17.9
<b>Total Inter-Firm Sales</b>	<b>\$45.3</b>	<b>\$9.7</b>	<b>\$1.0</b>	<b>\$5.8</b>	<b>\$61.9</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Inter-Firm Sales	\$27.5	\$0.6	\$0.2	\$1.5	\$29.9
Indirect Inter-Firm Sales	\$2.4	\$0.5	\$0.2	\$0.9	\$4.1
Induced Inter-Firm Sales	\$10.7	\$0.8	\$0.3	\$1.5	\$13.3
<b>Total Inter-Firm Sales</b>	<b>\$40.6</b>	<b>\$1.8</b>	<b>\$0.8</b>	<b>\$4.0</b>	<b>\$47.3</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Inter-Firm Sales	\$2.5	\$0.0	\$0.0	\$0.1	\$2.6
Indirect Inter-Firm Sales	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Induced Inter-Firm Sales	\$0.5	\$0.0	\$0.0	\$0.1	\$0.7
<b>Total Inter-Firm Sales</b>	<b>\$3.2</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$3.5</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Inter-Firm Sales	\$0.3	\$5.1	\$0.1	\$0.7	\$6.2
Indirect Inter-Firm Sales	\$0.4	\$0.3	\$0.0	\$0.3	\$1.1
Induced Inter-Firm Sales	\$0.7	\$2.4	\$0.1	\$0.6	\$3.8
<b>Total Inter-Firm Sales</b>	<b>\$1.5</b>	<b>\$7.8</b>	<b>\$0.2</b>	<b>\$1.7</b>	<b>\$11.1</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Induced Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Inter-Firm Sales</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 49: Inter-Firm Sales Associated with Infrastructure and Equipment – All Campuses and Ten-Year Average



## 7.0 Outputs – Pensions – All Campuses

The direct, indirect, and induced economic impacts estimated for pensions paid out through all MUN campuses are described below. The specific economic impacts analyzed were:

1. employment;
2. salaries and benefits;
3. GDP;
4. municipal revenues;
5. provincial revenues;
6. federal revenues; and
7. inter-firm sales.

### 7.1 Outputs – Pensions – All Campuses - Employment

The employment impacts associated with pensions paid at MUN by campus are presented in Table 56 and Figure 50 below. In addition to considering the direct, indirect, and induced impacts, the analysis assessed the employment impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The pensions paid at MUN, across all of its campus, have brought about 287 full-time-equivalent jobs annually within NL. This consisted of 201 direct jobs, 26 jobs in firms that supply goods and services to the university, and 60 jobs in the services sector. The majority of the jobs, 85.1%, were created on the Avalon Peninsula; 4.7% were located in the Corner Brook/Deer Lake region, 1.8% were in Labrador, and the rest of the island accounted for the remaining 8.4% of the jobs.

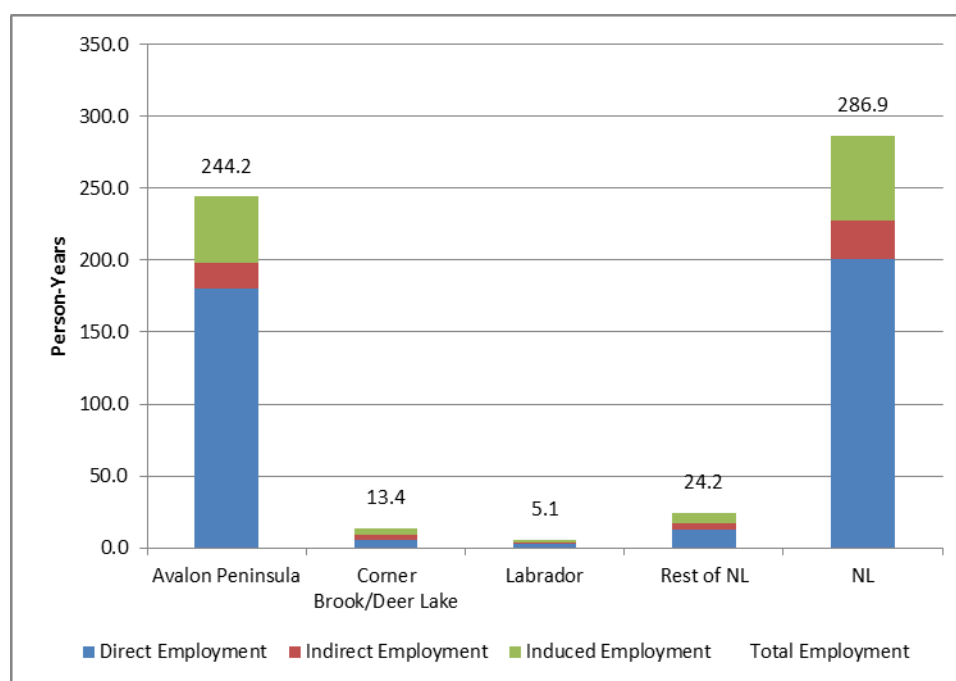
The analysis of total employment by campus revealed that the St. John's campus accounted for 82.2% of the total employment (236 person-years of 287 person-years). A further 6.4% of employment (18.5 person-years) flowed from the Marine Institute, 11.2% of employment (32.2 person-years) came from the Grenfell campus, and 0.2% of the employment (0.5 person-years) occurred in Labrador.

**Table 56: Employment Associated with Pensions – All Campuses and Ten-Year Average (Person-Years)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Employment	180.1	5.8	2.4	12.6	201.0
Indirect Employment	18.2	3.1	0.9	4.0	26.2
Induced Employment	45.9	4.4	1.7	7.6	59.6
<b>Total Employment</b>	<b>244.2</b>	<b>13.4</b>	<b>5.1</b>	<b>24.2</b>	<b>286.9</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Employment	147.9	4.8	2.0	10.4	165.1
Indirect Employment	15.0	2.5	0.7	3.3	21.5
Induced Employment	37.7	3.6	1.4	6.2	49.0
<b>Total Employment</b>	<b>200.6</b>	<b>11.0</b>	<b>4.2</b>	<b>19.9</b>	<b>235.7</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Direct Employment	11.6	0.4	0.2	0.8	13.0
Indirect Employment	1.2	0.2	0.1	0.3	1.7
Induced Employment	3.0	0.3	0.1	0.5	3.8
<b>Total Employment</b>	<b>15.8</b>	<b>0.9</b>	<b>0.3</b>	<b>1.6</b>	<b>18.5</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Employment	20.2	0.7	0.3	1.4	22.5
Indirect Employment	2.0	0.3	0.1	0.4	2.9
Induced Employment	5.1	0.5	0.2	0.9	6.7
<b>Total Employment</b>	<b>27.4</b>	<b>1.5</b>	<b>0.6</b>	<b>2.7</b>	<b>32.2</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Employment	0.3	0.0	0.0	0.0	0.4
Indirect Employment	0.0	0.0	0.0	0.0	0.0
Induced Employment	0.1	0.0	0.0	0.0	0.1
<b>Total Employment</b>	<b>0.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>

Figure 50: Employment Associated with Pensions – All Campuses and Ten-Year Average



## 7.2 Outputs – Pensions – All Campuses – Salaries and Benefits

The salaries and benefits impacts for expenditures from pensioners by campus are shown in Table 57 and Figure 51 below. In addition to considering the impacts as their direct, indirect, and induced components, the analysis evaluated the salaries and benefits impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of Newfoundland.

The expenditures from pensions paid, across all campuses, have resulted in \$10 million in salaries and benefits being paid within NL. This consisted of \$6.8 direct salaries and benefits, \$1.1 million in salaries and benefits paid by firms that supply goods and services to the university, and \$2.1 million in salaries and benefits paid by firms in the services sector. The majority of benefits, 84.0%, benefitted residents on the Avalon Peninsula, 5.0% accrued to individuals residing in the Corner Brook/Deer Lake region, 2.0% was paid to individuals in the Labrador region, and the remaining 9.0% of was spread throughout the rest of the island.

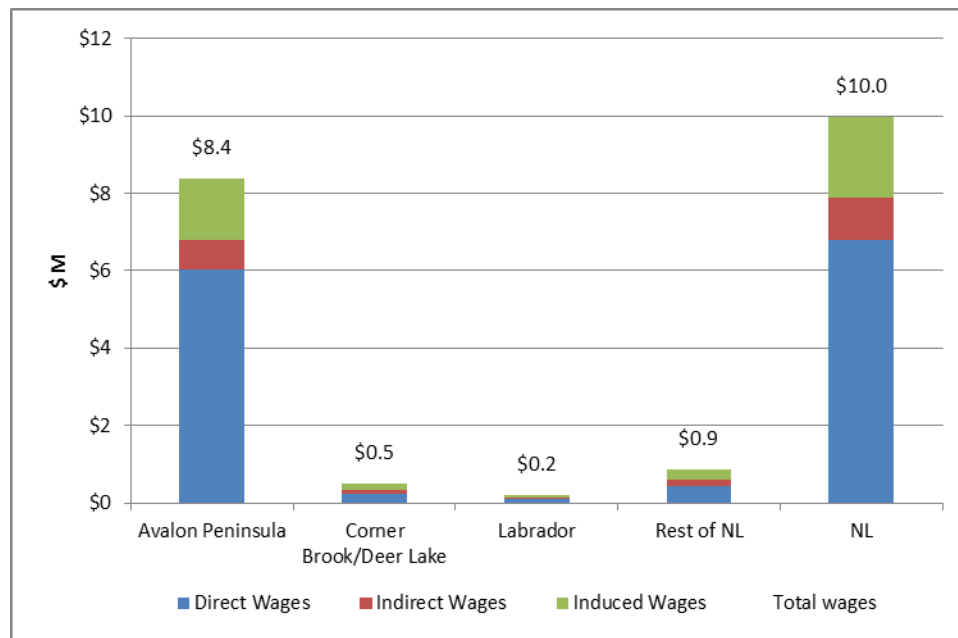
The analysis of total salaries and benefits by campus revealed that 82.0% of the total salaries and benefits (\$8.2 million of \$10.0 million) was accounted for by the St. John's campus. A further 6.0% (\$0.6 million) resulted from pensions paid through the Marine Institute, while 11.0% (\$1.1 million) were generated by the Grenfell campus. None of the salaries and benefits was traced to Labrador.

**Table 57: Salaries and Benefits Associated with Pensions – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Salaries/Benefits	\$6.0	\$0.2	\$0.1	\$0.4	\$6.8
Indirect Salaries/Benefits	\$0.8	\$0.1	\$0.0	\$0.2	\$1.1
Induced Salaries/Benefits	\$1.6	\$0.2	\$0.1	\$0.3	\$2.1
<b>Total Salaries/Benefits</b>	<b>\$8.4</b>	<b>\$0.5</b>	<b>\$0.2</b>	<b>\$0.9</b>	<b>\$10.0</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Salaries/Benefits	\$4.9	\$0.2	\$0.1	\$0.3	\$5.6
Indirect Salaries/Benefits	\$0.7	\$0.1	\$0.0	\$0.2	\$0.9
Induced Salaries/Benefits	\$1.3	\$0.2	\$0.1	\$0.2	\$1.7
<b>Total Salaries/Benefits</b>	<b>\$6.9</b>	<b>\$0.4</b>	<b>\$0.2</b>	<b>\$0.7</b>	<b>\$8.2</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Salaries/Benefits	\$0.4	\$0.0	\$0.0	\$0.0	\$0.4
Indirect Salaries/Benefits	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Salaries/Benefits	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Salaries/Benefits</b>	<b>\$0.5</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Salaries/Benefits	\$0.7	\$0.0	\$0.0	\$0.0	\$0.8
Indirect Salaries/Benefits	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Salaries/Benefits	\$0.2	\$0.0	\$0.0	\$0.0	\$0.2
<b>Total Salaries/Benefits</b>	<b>\$0.9</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$1.1</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>



Figure 51: Salaries and Benefits Associated with Pensions – All Campuses and Ten-Year Average (\$M)



### 7.3 Outputs – Pensions– All Campuses – GDP

The GDP impacts for expenditures from pensions paid at MUN by campus are provided in Table 58 and Figure 52 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis considered the GDP impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of Newfoundland.

The expenditures from pensions paid, across all campuses, have resulted in \$29.0 million in GDP generated within NL. This consisted of \$21.1 million in direct GDP, \$1.9 million in GDP through firms that supply goods and services to the university and \$6.0 million in GDP through the services sector. The majority of the GDP, 89.7%, accrued to people on the Avalon Peninsula, 3.4% accrued to individuals residing in the Corner Brook/Deer Lake region, 1.4% was created in the Labrador region, and the remaining 5.9% was spread throughout the rest of the island.

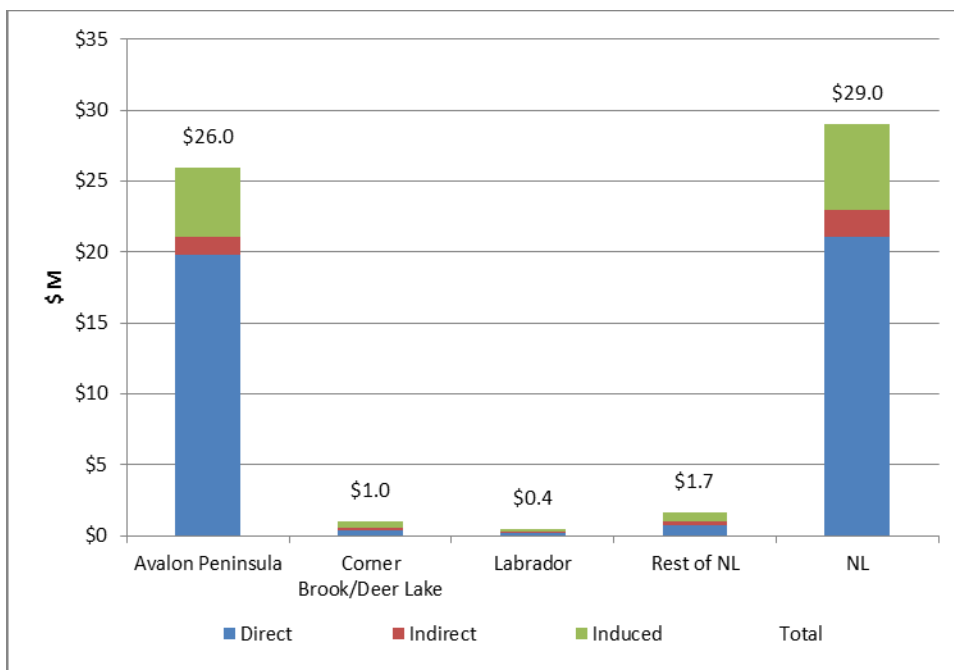
The analysis of total GDP by campus indicated that 82.1% of the total GDP (\$23.8 million of \$29.0 million) was accounted for by the St. John's campus. A further 6.6% (\$1.9 million) resulted from pensions paid at the Marine Institute, while 11.4% (\$3.3 million) was generated by the Grenfell campus. Only 0.3% of the GDP (\$0.1 million) was associated with Labrador.

Table 58: GDP Associated with Pensions – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Annual Average Over 10 Years – All Campuses					
Direct GDP	\$19.8	\$0.4	\$0.2	\$0.8	\$21.1
Indirect GDP	\$1.3	\$0.2	\$0.1	\$0.3	\$1.9
Induced GDP	\$4.9	\$0.4	\$0.2	\$0.6	\$6.0

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Total GDP</b>	<b>\$26.0</b>	<b>\$1.0</b>	<b>\$0.4</b>	<b>\$1.7</b>	<b>\$29.0</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct GDP	\$16.3	\$0.3	\$0.2	\$0.7	\$17.3
Indirect GDP	\$1.1	\$0.2	\$0.1	\$0.2	\$1.6
Induced GDP	\$4.0	\$0.3	\$0.2	\$0.5	\$4.9
<b>Total GDP</b>	<b>\$21.4</b>	<b>\$0.8</b>	<b>\$0.3</b>	<b>\$1.4</b>	<b>\$23.8</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct GDP	\$1.3	\$0.0	\$0.0	\$0.1	\$1.4
Indirect GDP	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced GDP	\$0.3	\$0.0	\$0.0	\$0.0	\$0.4
<b>Total GDP</b>	<b>\$1.7</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$1.9</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct GDP	\$2.2	\$0.0	\$0.0	\$0.1	\$2.4
Indirect GDP	\$0.1	\$0.0	\$0.0	\$0.0	\$0.2
Induced GDP	\$0.5	\$0.0	\$0.0	\$0.1	\$0.7
<b>Total GDP</b>	<b>\$2.9</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$3.3</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total GDP</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>

Figure 52: GDP Associated with Pensions – All Campuses and Ten-Year Average (\$M)



## 7.4 Outputs – Pensions – All Campuses – Municipal Revenues

The municipal tax impacts for expenditures from pensions paid by campus are illustrated in Table 59 and Figure 53 below. In addition to classifying the impacts into their direct, indirect, and induced components, the analysis examined the municipal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The expenditures from pensions paid, across all campuses, have resulted in \$1.01 million in municipal revenues generated within NL. This consisted of \$0.78 million in direct municipal revenues, \$0.01 million in municipal revenues from firms that supply goods and services to the university, and \$0.21 million in municipal revenues from the services sector. The majority of the municipal revenues, 96.0%, were generated within the Avalon Peninsula region, 1.0% accrued to local government in the Corner Brook/Deer Lake region, 1.0% of the municipal revenues were received by municipalities in Labrador, and the remaining 2.0% were spread throughout the rest of the island.

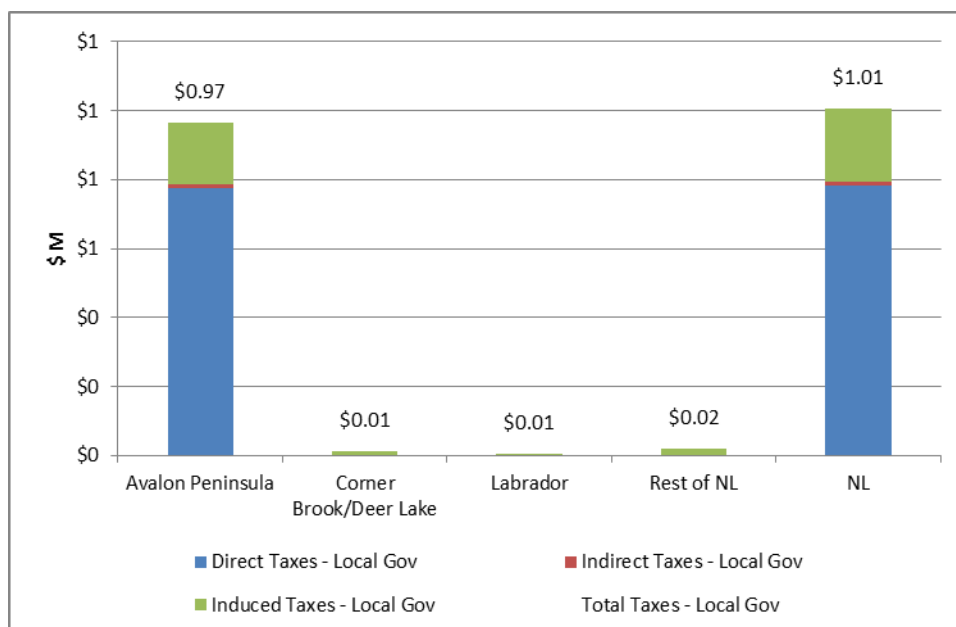
The analysis of total municipal revenues by campus indicates that 79.2% of the total municipal revenues (\$0.8 million of \$1.01 million) resulted from pensions paid at the St. John's campus, with a further 9.9% (\$0.1 million) were generated by the Marine Institute, and 9.9% (\$0.1 million) originated with the Grenfell campus. None of total municipal revenues for expenditures from pensions paid was traced to Labrador.

**Table 59: Municipal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Municipal Revenues	\$0.77	\$0.00	\$0.00	\$0.00	\$0.78
Indirect Municipal Revenues	\$0.01	\$0.00	\$0.00	\$0.00	\$0.01
Induced Municipal Revenues	\$0.18	\$0.01	\$0.00	\$0.02	\$0.21
<b>Total Municipal Revenues</b>	<b>\$0.97</b>	<b>\$0.01</b>	<b>\$0.01</b>	<b>\$0.02</b>	<b>\$1.01</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Municipal Revenues	\$0.6	\$0.0	\$0.0	\$0.0	\$0.6
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.2
<b>Total Municipal Revenues</b>	<b>\$0.8</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.8</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Municipal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Direct Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 53: Municipal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)



## 7.5 Outputs – Pensions – All Campuses – Provincial Revenues

The provincial tax impacts from pensions paid at MUN by campus are given in Table 60 and Figure 54 below. In addition to distinguishing the impacts by their direct, indirect, and induced components, the analysis estimated the provincial tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region and for the rest of Newfoundland.

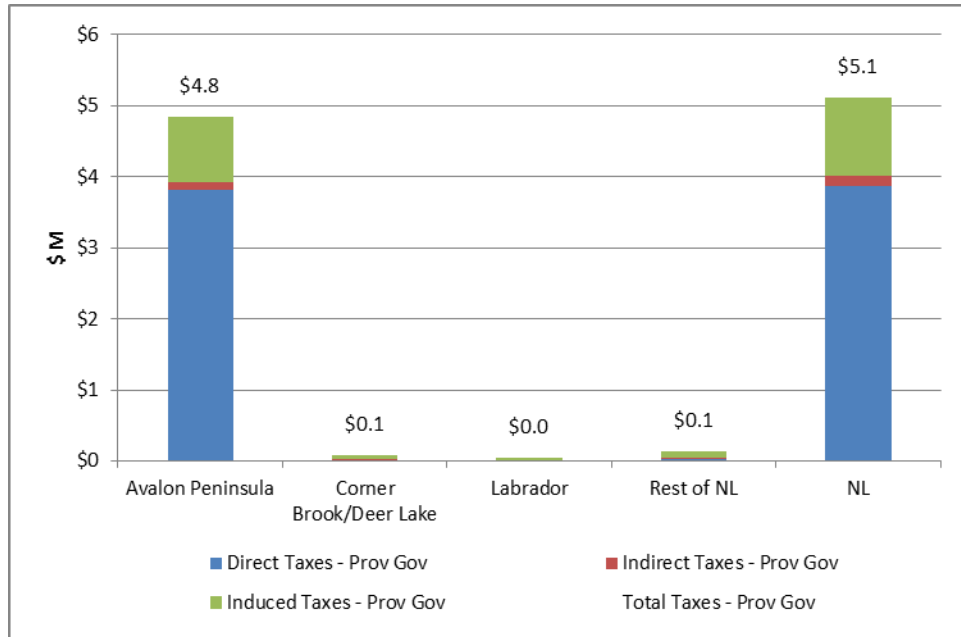
The expenditures from pensions paid, across all campuses, have resulted in \$5.1 million in provincial revenues generated within NL. This consisted of \$3.9 million in direct provincial revenues, \$0.1 million in provincial revenues from firms that supply goods and services to the university and \$1.1 million in provincial revenues from the services sector. The majority of the provincial revenues, 94.1%, were generated within the Avalon Peninsula, with 2.0% originating within the Corner Brook/Deer Lake region, and none of the provincial revenues came from Labrador. The remaining 2.0% was generated throughout the rest of the island.

The analysis of total provincial revenues by campus indicated that 82.4% of the total provincial revenues (\$4.2 million of \$5.1 million) were accounted for by the St. John's campus. A further 5.9% (\$0.3 million) resulted from pensions paid at the Marine Institute, while 11.8% of the provincial revenues (\$0.6 million) were generated by the Grenfell campus. None of the provincial revenues was traced to Labrador.

**Table 60: Provincial Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Provincial Revenues	\$3.8	\$0.0	\$0.0	\$0.0	\$3.9
Indirect Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Provincial Revenues	\$0.9	\$0.1	\$0.0	\$0.1	\$1.1
<b>Total Provincial Revenues</b>	<b>\$4.8</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$5.1</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Provincial Revenues	\$3.1	\$0.0	\$0.0	\$0.0	\$3.2
Indirect Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Provincial Revenues	\$0.7	\$0.1	\$0.0	\$0.1	\$0.9
<b>Total Provincial Revenues</b>	<b>\$3.9</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$4.2</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Provincial Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Provincial Revenues</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.3</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Provincial Revenues	\$0.4	\$0.0	\$0.0	\$0.0	\$0.4
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Provincial Revenues</b>	<b>\$0.5</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.6</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 54: Provincial Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)



## 7.6 Outputs – Pensions – All Campuses – Federal Revenues

The federal tax impacts from pensions paid by campus are indicated in Table 61 and Figure 55 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the federal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The expenditures from pensions paid, across all campuses, have resulted in \$2.9 million in federal revenues generated within NL. This consisted of \$2.1 million in direct federal revenues, \$0.1 million in federal revenues from firms that supply goods and services to the university, and \$0.6 million in federal revenues from the services. The majority of the federal revenues, 93.1%, were generated within the Avalon Peninsula region; 3.4% were generated within the Corner Brook/Deer Lake region, none of the federal revenues came from Labrador, and the remaining 3.4% originated throughout the rest of the island.

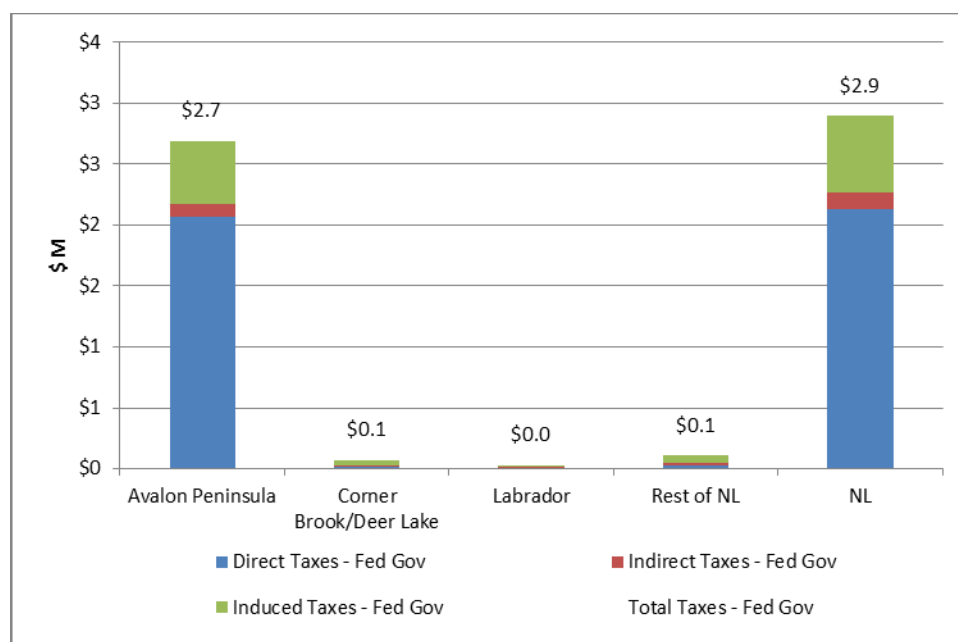
The analysis of total federal revenues by campus indicated that 82.8% of the total federal revenues (\$2.4 million of \$2.9 million) were accounted for by the St. John's campus. A further 6.9% (\$0.2 million) resulted from the expenditures from pensions paid at the Marine Institute, and 10.3% of the federal revenues (\$0.3 million) were generated by the Grenfell campus.

Table 61: Federal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Annual Average Over 10 Years – All Campuses					
Direct Federal Revenues	\$2.1	\$0.0	\$0.0	\$0.0	\$2.1
Indirect Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Federal Revenues	\$0.5	\$0.0	\$0.0	\$0.1	\$0.6

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Total Federal Revenues</b>	<b>\$2.7</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$2.9</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Federal Revenues	\$1.7	\$0.0	\$0.0	\$0.0	\$1.7
Indirect Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Federal Revenues	\$0.4	\$0.0	\$0.0	\$0.1	\$0.5
<b>Total Federal Revenues</b>	<b>\$2.2</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$2.4</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Federal Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.2
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Federal Revenues</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.3</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 55: Federal Revenues Associated with Pensions – All Campuses and Ten-Year Average (\$M)



## 7.7 Outputs – Pensions – All Campuses – Inter-Firm Sales

The inter-firm sales impacts for expenditures from pensions paid at MUN by campus are displayed in Table 62 and Figure 56 below. In addition to analyzing the impacts by their direct, indirect, and induced components, the analysis estimated the inter-firm sales impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The expenditures from pensions paid, across all campuses, have resulted in \$49.3 million in inter-firm sales generated within NL. This consisted of \$25.6 million in direct inter-firm sales, \$4.4 million in inter-firm sales from firms that supply goods and services to the university and \$19.4 million in inter-firm sales from the services sector. The majority of the inter-firm sales, 85.6%, resulted from expenditures from pensions paid occurred in the Avalon Peninsula; 4.7% originated within the Corner Brook/Deer Lake region, 2.0% came from Labrador, and the remaining 7.9% of the inter-firm sales were generated throughout the rest of the island.

The analysis of total inter-firm sales by campus indicated that 82.2% of the total inter-firm sales (\$40.5 million of \$49.3 million) were accounted for by the St. John's campus. A further 6.5% (\$3.2 million) resulted from pensions paid at the Marine Institute, while 11.2% (\$5.5 million) were generated by the Grenfell campus. Only 0.2% of the inter-firm sales (\$0.1 million) were traced to Labrador.

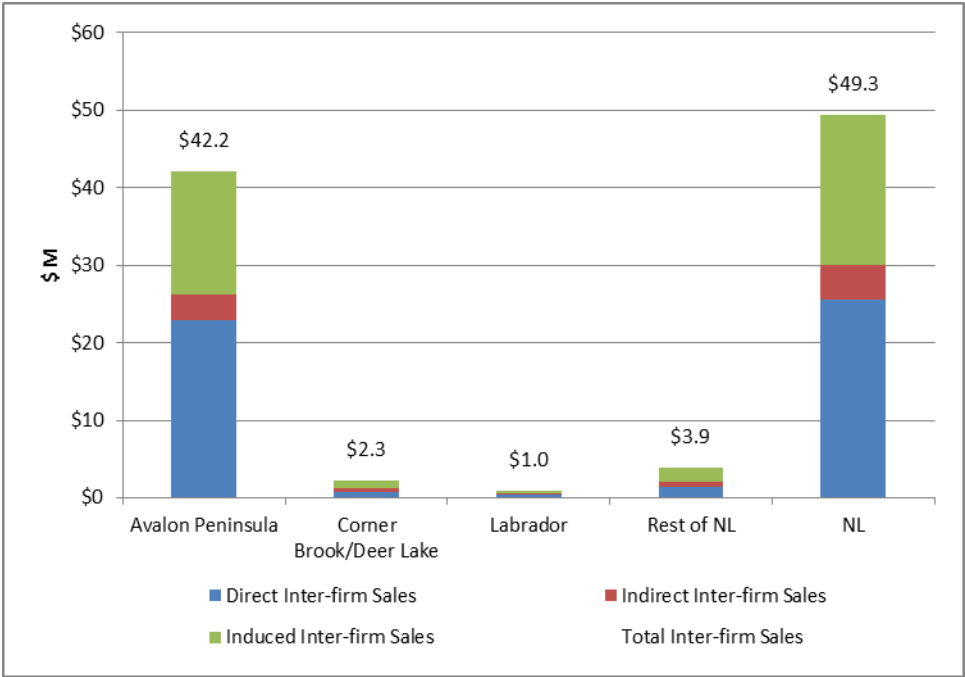
**Table 62: Inter-Firm Sales Associated with Pensions – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Inter-Firm Sales	\$23.0	\$0.7	\$0.4	\$1.5	\$25.6
Indirect Inter-Firm Sales	\$3.2	\$0.4	\$0.2	\$0.6	\$4.4
Induced Inter-Firm Sales	\$16.0	\$1.1	\$0.4	\$1.8	\$19.4
<b>Total Inter-Firm Sales</b>	<b>\$42.2</b>	<b>\$2.3</b>	<b>\$1.0</b>	<b>\$3.9</b>	<b>\$49.3</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Inter-Firm Sales	\$18.9	\$0.6	\$0.3	\$1.2	\$21.0
Indirect Inter-Firm Sales	\$2.6	\$0.3	\$0.2	\$0.5	\$3.6
Induced Inter-Firm Sales	\$13.1	\$0.9	\$0.3	\$1.5	\$15.9
<b>Total Inter-Firm Sales</b>	<b>\$34.7</b>	<b>\$1.9</b>	<b>\$0.8</b>	<b>\$3.2</b>	<b>\$40.5</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Inter-Firm Sales	\$1.5	\$0.0	\$0.0	\$0.1	\$1.7
Indirect Inter-Firm Sales	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Induced Inter-Firm Sales	\$1.0	\$0.1	\$0.0	\$0.1	\$1.3
<b>Total Inter-Firm Sales</b>	<b>\$2.7</b>	<b>\$0.1</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$3.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Inter-Firm Sales	\$2.6	\$0.1	\$0.0	\$0.2	\$2.9
Indirect Inter-Firm Sales	\$0.4	\$0.0	\$0.0	\$0.1	\$0.5
Induced Inter-Firm Sales	\$1.8	\$0.1	\$0.0	\$0.2	\$2.2
<b>Total Inter-Firm Sales</b>	<b>\$4.7</b>	<b>\$0.3</b>	<b>\$0.1</b>	<b>\$0.4</b>	<b>\$5.5</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0



	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Inter-Firm Sales</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>

Figure 56: Employment Associated with Pensions – All Campuses and Ten-Year Average



## 8.0 Outputs – Students’ Expenditures – All Campuses

The direct, indirect and induced economic impacts estimated for students’ expenditures at MUN are discussed below for all campuses. The specific outputs from the economic impact analysis undertaken are discussed below:

1. employment;
2. salaries and benefits;
3. GDP;
4. municipal revenues;
5. provincial revenues;
6. federal revenues; and
7. inter-firm sales.

### 8.1 Outputs – Students’ Expenditures– All Campuses - Employment

The employment impacts for students’ expenditures by campus are presented in Table 63 and Figure 57 below. In addition to considering the direct, indirect, and induced impacts, the analysis evaluated the employment impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The students’ expenditures, across all of MUN’s campuses, have brought about 972.5 full-time-equivalent jobs annually. This consisted of 648.1 direct jobs, 141.7 jobs in businesses that supply goods and services to the university, and 182.7 jobs in the services sector. The majority of the employment created by the students’ expenditures, 82.2%, occurred within the Avalon Peninsula. The Corner Brook/Deer Lake region accounted 9.6% of the jobs, with 1.7% of the jobs occurring in Labrador, and the remaining 6.5% spread throughout the rest of the island.

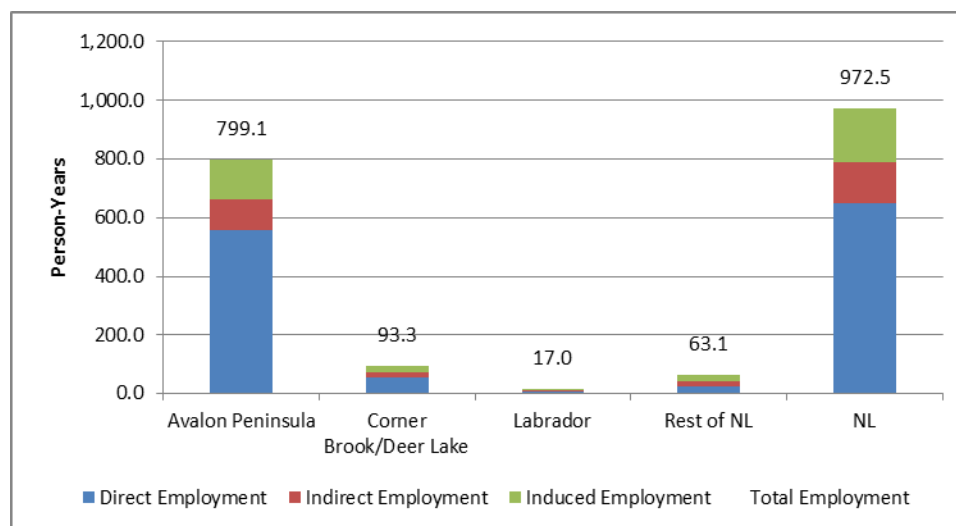
The analysis of total employment by campus revealed that the St. John’s campus accounted for 85.2% of the total employment (828.3 person-years of 972.5 person-years). A further 6.2% the employment (60.7 person-years) was traced to the Marine Institute, while 8.6% of total employment (83.5 person-years) was generated at the Grenfell campus. None of the employment was created in Labrador.

**Table 63: Employment Associated with Students’ Expenditures – All Campuses and Ten-Year Average (Person-Years)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Employment	558.8	55.7	7.5	26.2	648.1
Indirect Employment	103.0	18.3	4.1	16.3	141.7
Induced Employment	137.4	19.3	5.4	20.6	182.7
<b>Total Employment</b>	<b>799.1</b>	<b>93.3</b>	<b>17.0</b>	<b>63.1</b>	<b>972.5</b>
<b>Annual Average Over 10 Years – St. John’s campus</b>					
Direct Employment	514.4	11.6	5.7	21.0	552.7
Indirect Employment	92.1	11.1	3.4	13.5	120.1
Induced Employment	123.7	10.5	4.3	17.0	155.4

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Total Employment</b>	<b>730.2</b>	<b>33.2</b>	<b>13.3</b>	<b>51.5</b>	<b>828.3</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Employment	37.5	0.8	0.4	1.5	40.3
Indirect Employment	6.9	0.8	0.3	1.0	9.0
Induced Employment	9.1	0.8	0.3	1.2	11.4
<b>Total Employment</b>	<b>53.5</b>	<b>2.4</b>	<b>1.0</b>	<b>3.8</b>	<b>60.7</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Employment	6.9	43.2	1.4	3.7	55.2
Indirect Employment	4.0	6.3	0.5	1.8	12.6
Induced Employment	4.5	8.1	0.7	2.4	15.8
<b>Total Employment</b>	<b>15.4</b>	<b>57.7</b>	<b>2.6</b>	<b>7.8</b>	<b>83.5</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Employment	0.0	0.0	0.0	0.0	0.0
Indirect Employment	0.0	0.0	0.0	0.0	0.0
Induced Employment	0.0	0.0	0.0	0.0	0.0
<b>Total Employment</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Figure 57: Employment Associated with Students' Expenditures – All Campuses and Ten-Year Average



## 8.2 Outputs – Students' Expenditures – All Campuses – Salaries and Benefits

The salaries and benefits impacts for students' expenditures by campus are shown in Table 64 and Figure 58 below. In addition to categorizing the impacts into their direct, indirect, and induced components, the analysis evaluated the salaries and benefits impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region and for the rest of Newfoundland.

The students' expenditures, across all campuses, have resulted in \$35.1 million in salaries and benefits being paid within NL. This consisted of \$22.7 million direct salaries and benefits, \$6.0 million in salaries and benefits paid by firms that supply goods and services to the university and \$6.4 million in salaries

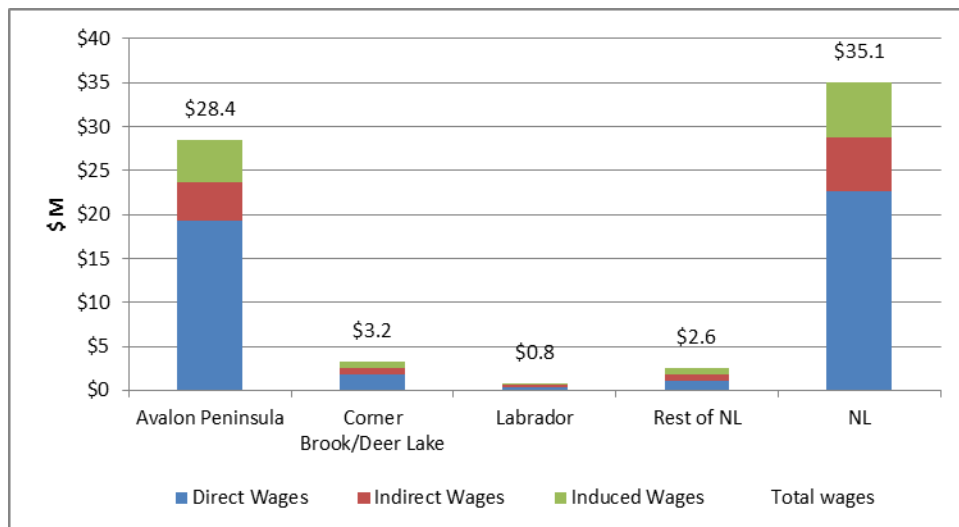
and benefits paid by firms in the services sector. The majority of the salaries and benefits occurred on the Avalon Peninsula. Specifically, 80.9% of the salaries and benefits occurred within the Avalon Peninsula region, 9.1% accrued to individuals residing in the Corner Brook/Deer Lake region, 2.3% were paid to individuals in the Labrador region, and the remaining 7.4% of the salaries and benefits were spread throughout the rest of the island.

The breakdown in total salaries and benefits by campus revealed that 85.2% of the total salaries and benefits (\$29.9 million of \$35.1 million) was accounted for by the St. John's campus. A further 6.3% (\$2.2 million) was generated by the Marine Institute, while 8.5% of the salaries and benefits (\$3.0 million) was generated by the Grenfell campus

**Table 64: Salaries and Benefits Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Salaries/Benefits	\$19.3	\$1.9	\$0.4	\$1.1	\$22.7
Indirect Salaries/Benefits	\$4.4	\$0.7	\$0.2	\$0.7	\$6.0
Induced Salaries/Benefits	\$4.8	\$0.7	\$0.2	\$0.7	\$6.4
<b>Total Salaries/Benefits</b>	<b>\$28.4</b>	<b>\$3.2</b>	<b>\$0.8</b>	<b>\$2.6</b>	<b>\$35.1</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Salaries/Benefits	\$17.7	\$0.5	\$0.3	\$0.9	\$19.4
Indirect Salaries/Benefits	\$3.9	\$0.4	\$0.2	\$0.6	\$5.1
Induced Salaries/Benefits	\$4.3	\$0.4	\$0.2	\$0.6	\$5.4
<b>Total Salaries/Benefits</b>	<b>\$25.8</b>	<b>\$1.3</b>	<b>\$0.6</b>	<b>\$2.1</b>	<b>\$29.9</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Salaries/Benefits	\$1.3	\$0.0	\$0.0	\$0.1	\$1.4
Indirect Salaries/Benefits	\$0.3	\$0.0	\$0.0	\$0.0	\$0.4
Induced Salaries/Benefits	\$0.3	\$0.0	\$0.0	\$0.0	\$0.4
<b>Total Salaries/Benefits</b>	<b>\$1.9</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$2.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Salaries/Benefits	\$0.4	\$1.3	\$0.1	\$0.2	\$1.9
Indirect Salaries/Benefits	\$0.2	\$0.3	\$0.0	\$0.1	\$0.5
Induced Salaries/Benefits	\$0.2	\$0.3	\$0.0	\$0.1	\$0.6
<b>Total Salaries/Benefits</b>	<b>\$0.7</b>	<b>\$1.9</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$3.0</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 58: Salaries and Benefits Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)



### 8.3 Outputs – Students' Expenditures – All Campuses – GDP

The GDP impacts for students' expenditures at MUN by campus are provided in Table 65 and Figure 59 below. In addition to evaluating the impacts as to their direct, indirect, and induced components, the analysis considered the GDP impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of Newfoundland.

The students' expenditures, across all campuses, have resulted in \$97.9 million in GDP generated within NL. This consisted of \$69.1 direct GDP, \$10.2 million in GDP through firms that supply goods and services to the university and \$18.6 million in GDP through the services sector. The majority of the GDP created by students' expenditures, 84.3%, occurred on the Avalon Peninsula; 9.1% accrued to residents in the Corner Brook/Deer Lake region, 1.7% was found in the Labrador region, and the remaining 4.9% of the GDP was spread throughout the rest of the island.

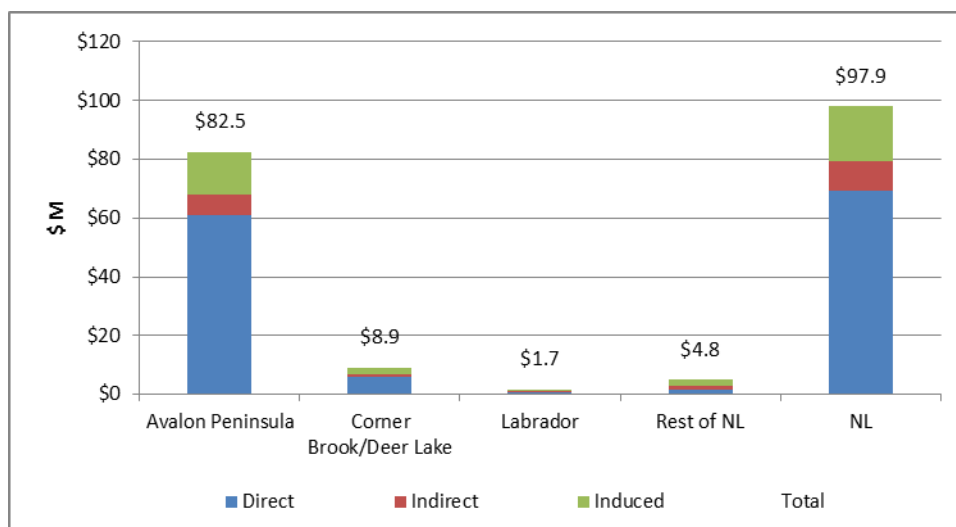
The analysis of total GDP by campus indicated that 85.0% of the total GDP (\$83.2 million of \$97.9 million) was accounted for by the St. John's campus. A further 6.3% (\$6.2 million) resulted from the students' expenditures of the Marine Institute, while 8.7% (\$8.5 million) was generated by the Grenfell campus.

Table 65: GDP Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct GDP	\$60.8	\$5.8	\$0.8	\$1.8	\$69.1
Indirect GDP	\$7.3	\$1.2	\$0.4	\$1.3	\$10.2
Induced GDP	\$14.4	\$1.9	\$0.5	\$1.8	\$18.6
<b>Total GDP</b>	<b>\$82.5</b>	<b>\$8.9</b>	<b>\$1.7</b>	<b>\$4.8</b>	<b>\$97.9</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct GDP	\$56.0	\$0.8	\$0.6	\$1.4	\$58.7

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Indirect GDP	\$6.5	\$0.7	\$0.3	\$1.1	\$8.7
Induced GDP	\$13.0	\$0.9	\$0.4	\$1.5	\$15.8
<b>Total GDP</b>	<b>\$75.5</b>	<b>\$2.5</b>	<b>\$1.3</b>	<b>\$4.0</b>	<b>\$83.2</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct GDP	\$4.1	\$0.1	\$0.0	\$0.1	\$4.3
Indirect GDP	\$0.5	\$0.1	\$0.0	\$0.1	\$0.6
Induced GDP	\$1.0	\$0.1	\$0.0	\$0.1	\$1.2
<b>Total GDP</b>	<b>\$5.6</b>	<b>\$0.2</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$6.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct GDP	\$0.7	\$4.9	\$0.2	\$0.3	\$6.0
Indirect GDP	\$0.3	\$0.4	\$0.0	\$0.1	\$0.9
Induced GDP	\$0.5	\$0.9	\$0.1	\$0.2	\$1.6
<b>Total GDP</b>	<b>\$1.4</b>	<b>\$6.2</b>	<b>\$0.3</b>	<b>\$0.6</b>	<b>\$8.5</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total GDP</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 59: GDP Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)



## 8.4 Outputs – Students' Expenditures – All Campuses – Municipal Revenues

The municipal tax impacts for students' expenditures at MUN by campus are illustrated in Table 66 and Figure 60 below. In addition to separating the impacts into their direct, indirect, and induced components, the analysis examined the municipal tax impacts for the province as a whole, for the Avalon Peninsula, for the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

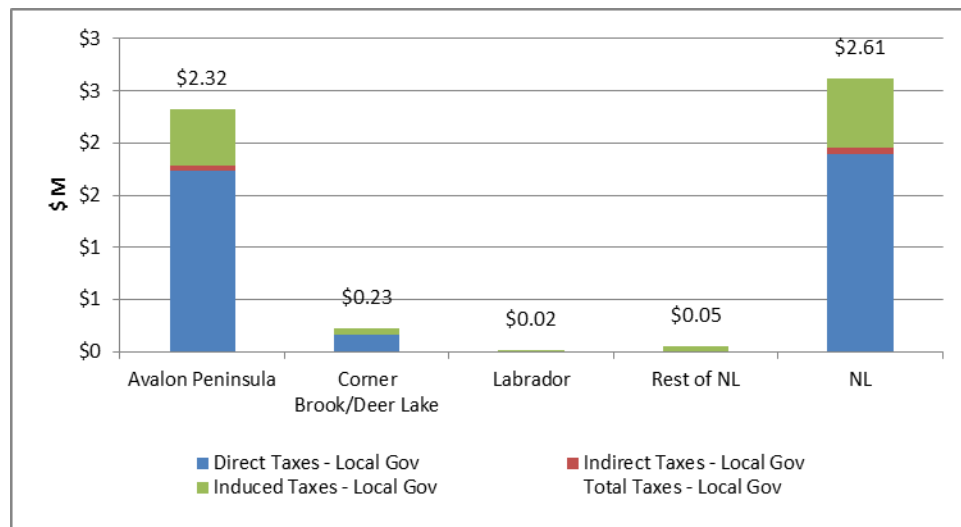
The students' expenditures, across all campuses, have resulted in \$2.61 million in municipal revenues generated within NL. This consisted of \$1.89 million in direct municipal revenues, \$0.06 million in municipal revenues from firms that supply goods and services to the university and \$0.66 million in municipal revenues from the services sector. The majority of the municipal revenues, 88.9%, were generated within the Avalon Peninsula region, with 8.8% accruing to local government in the Corner Brook/Deer Lake region, less than 0.8% went to Labrador, and the remaining 1.9% of the municipal revenues were spread throughout the rest of the island.

The analysis of total municipal revenues by campus indicated that 85.4% of the total municipal revenues (\$2.23 million of \$2.61 million) were accounted for by the St. John's campus, a further 6.1% of the municipal revenues (\$0.16 million) resulted from the Marine Institute, while 8.8% of the municipal revenues (\$0.23 million) were generated by the Grenfell campus.

**Table 66: Municipal Revenues Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Municipal Revenues	\$1.74	\$0.16	\$0.00	\$0.00	\$1.89
Indirect Municipal Revenues	\$0.05	\$0.01	\$0.00	\$0.00	\$0.06
Induced Municipal Revenues	\$0.54	\$0.06	\$0.01	\$0.05	\$0.66
<b>Total Municipal Revenues</b>	<b>\$2.32</b>	<b>\$0.23</b>	<b>\$0.02</b>	<b>\$0.05</b>	<b>\$2.61</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Municipal Revenues	\$1.62	-\$0.01	\$0.00	\$0.00	\$1.61
Indirect Municipal Revenues	\$0.05	\$0.00	\$0.00	\$0.00	\$0.05
Induced Municipal Revenues	\$0.49	\$0.02	\$0.01	\$0.04	\$0.56
<b>Total Municipal Revenues</b>	<b>\$2.15</b>	<b>\$0.02</b>	<b>\$0.02</b>	<b>\$0.04</b>	<b>\$2.23</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Municipal Revenues	\$0.12	\$0.00	\$0.00	\$0.00	\$0.12
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.04	\$0.00	\$0.00	\$0.00	\$0.04
<b>Total Municipal Revenues</b>	<b>\$0.16</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.16</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Municipal Revenues	\$0.00	\$0.16	\$0.00	\$0.00	\$0.16
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.01	\$0.04	\$0.00	\$0.01	\$0.06
<b>Total Municipal Revenues</b>	<b>\$0.02</b>	<b>\$0.20</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.23</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 60: Municipal Revenues Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)



## 8.5 Outputs – Students' Expenditures – All Campuses – Provincial Revenues

The provincial tax impacts for students' expenditures at MUN by campus are given in Table 67 and Figure 61 below. In addition to separating the impacts into their direct, indirect, and induced components, the analysis estimated the provincial tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The students' expenditures across all campuses resulted in \$14.2 million in provincial revenues generated within NL. This consisted of \$10.1 million in direct provincial revenues, \$0.7 million in provincial revenues from firms that supply goods and services to the university and \$3.4 million in provincial revenues from the services. The majority of the provincial revenues, 88.0%, were generated within the Avalon Peninsula region; 8.5% of the provincial revenues were generated within the Corner Brook/Deer Lake region, less than 1% came from Labrador, and the remaining 2.1% of the provincial revenues were generated throughout the rest of the island.

The analysis of total provincial revenues by campus indicated that 85.2% of the total provincial revenues (\$12.1 million of \$14.2 million) were accounted for by the St. John's campus, a further 6.3% (\$0.9 million) came through the Marine Institute, and 8.5% of the provincial revenues (\$1.2 million) were generated by the Grenfell campus.

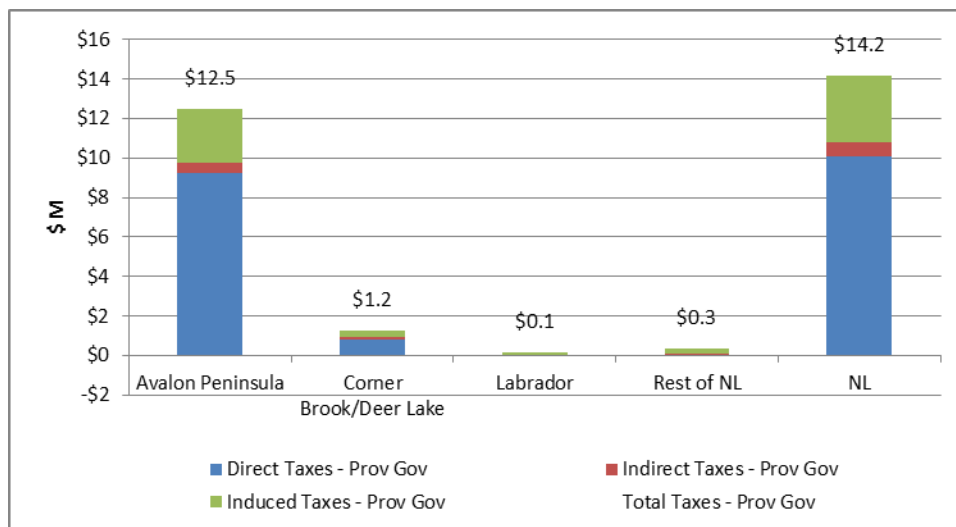
Table 67: Provincial Revenues Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Provincial Revenues	\$9.2	\$0.8	\$0.0	\$0.0	\$10.1
Indirect Provincial Revenues	\$0.5	\$0.1	\$0.0	\$0.1	\$0.7
Induced Provincial Revenues	\$2.7	\$0.3	\$0.1	\$0.3	\$3.4
<b>Total Provincial Revenues</b>	<b>\$12.5</b>	<b>\$1.2</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$14.2</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					



	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Direct Provincial Revenues	\$8.6	\$0.0	\$0.0	\$0.0	\$8.6
Indirect Provincial Revenues	\$0.5	\$0.0	\$0.0	\$0.1	\$0.6
Induced Provincial Revenues	\$2.5	\$0.1	\$0.1	\$0.2	\$2.9
<b>Total Provincial Revenues</b>	<b>\$11.5</b>	<b>\$0.2</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$12.1</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Provincial Revenues	\$0.6	\$0.0	\$0.0	\$0.0	\$0.6
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.2
<b>Total Provincial Revenues</b>	<b>\$0.8</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.9</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Provincial Revenues	\$0.0	\$0.8	\$0.0	\$0.0	\$0.9
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Induced Provincial Revenues	\$0.1	\$0.2	\$0.0	\$0.0	\$0.3
<b>Total Provincial Revenues</b>	<b>\$0.1</b>	<b>\$1.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.2</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 61: Provincial Revenues Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)



## 8.6 Outputs – Students' Expenditures – All Campuses – Federal Revenues

The federal tax impacts for students' expenditures at MUN by campus are indicated in Table 68 and Figure 62 below. In addition to assessing the impacts by their direct, indirect, and induced components, the analysis estimated the federal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

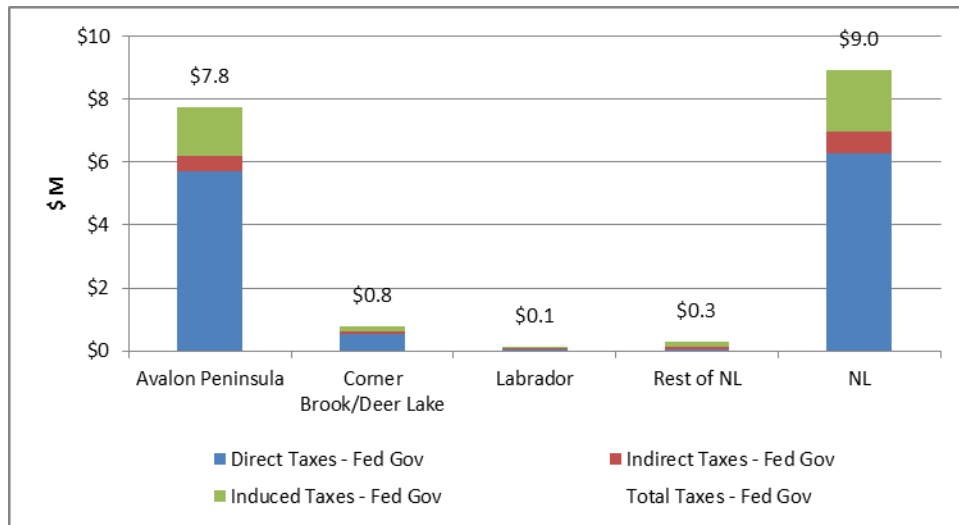
The students' expenditures, across all campuses, have resulted in \$9.0 million in federal revenues generated within NL. This consisted of \$6.3 million in direct federal revenues, \$0.7 million in federal revenues from firms that supply goods and services to the university and \$2.0 million in federal revenues from the services sector. The majority of the federal revenues, 86.7%, were generated within the Avalon Peninsula region; 8.9% of the federal revenues were generated within the Corner Brook/Deer Lake region, 1.1% came from Labrador, and the remaining 3.3% of the federal revenues were generated throughout the rest of the island.

The analysis of total federal revenues by campus indicates that 84.4% of the total federal revenues (\$7.6 million of \$9.0 million) were accounted for by the St. John's campus, a further 6.7% (\$0.6 million) originated with the Marine Institute, and 8.9% (\$0.8 million) were associated with the Grenfell campus.

**Table 68: Federal Revenues Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Federal Revenues	\$5.7	\$0.5	\$0.0	\$0.0	\$6.3
Indirect Federal Revenues	\$0.5	\$0.1	\$0.0	\$0.1	\$0.7
Induced Federal Revenues	\$1.6	\$0.2	\$0.1	\$0.2	\$2.0
<b>Total Federal Revenues</b>	<b>\$7.8</b>	<b>\$0.8</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$9.0</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Federal Revenues	\$5.3	\$0.0	\$0.0	\$0.0	\$5.4
Indirect Federal Revenues	\$0.4	\$0.0	\$0.0	\$0.1	\$0.6
Induced Federal Revenues	\$1.4	\$0.1	\$0.0	\$0.1	\$1.7
<b>Total Federal Revenues</b>	<b>\$7.1</b>	<b>\$0.2</b>	<b>\$0.1</b>	<b>\$0.2</b>	<b>\$7.6</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Federal Revenues	\$0.4	\$0.0	\$0.0	\$0.0	\$0.4
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Federal Revenues</b>	<b>\$0.5</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Federal Revenues	\$0.0	\$0.5	\$0.0	\$0.0	\$0.5
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Induced Federal Revenues	\$0.0	\$0.1	\$0.0	\$0.0	\$0.2
<b>Total Federal Revenues</b>	<b>\$0.1</b>	<b>\$0.6</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.8</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 62: Federal Revenues Associated with Students' Expenditures – All Campuses and Ten-Year Average (\$M)



## 8.7 Outputs – Students' Expenditures – All Campuses – Inter-Firm Sales

The inter-firm sales impacts for students' expenditures at MUN by campus are displayed in Table 69 and Figure 63 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the inter-firm sales impacts for the province as a whole, for the Avalon Peninsula, for the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The students' expenditures, across all campuses, have resulted in \$193 million in inter-firm sales generated within NL. This consisted of \$109.5 million in direct inter-firm sales, \$23.2 million in inter-firm sales from firms that supply goods and services to the university and \$60.2 million in inter-firm sales from the services sector. The majority of the inter-firm sales, 82.8%, occurred in the Avalon region; 9.4% was generated within the Corner Brook/Deer Lake region, 1.9% came from Labrador, and the remaining 5.9% was generated throughout the rest of the island.

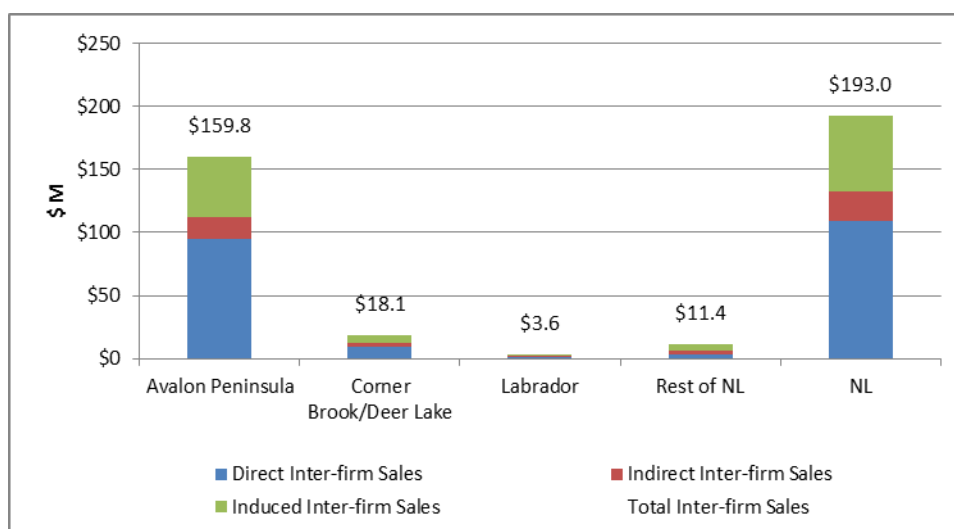
The analysis of total inter-firm sales by campus indicated that 84.9% of the total inter-firm sales (\$163.9 million of \$193.0 million) were accounted for by the St. John's campus, 6.3% of the inter-firm sales (\$12.2 million) were created by the Marine Institute, and 8.8% of the inter-firm sales (\$16.9 million) originated with the Grenfell campus.

Table 69: Inter-Firm Sales Associated with Students' Expenditure – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Inter-Firm Sales	\$95.1	\$9.6	\$1.3	\$3.5	\$109.5
Indirect Inter-Firm Sales	\$17.0	\$2.7	\$0.8	\$2.8	\$23.2
Induced Inter-Firm Sales	\$47.6	\$5.9	\$1.5	\$5.1	\$60.2
<b>Total Inter-Firm Sales</b>	<b>\$159.8</b>	<b>\$18.1</b>	<b>\$3.6</b>	<b>\$11.4</b>	<b>\$193.0</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Inter-Firm Sales	\$87.3	\$1.9	\$0.9	\$2.8	\$93.0

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Indirect Inter-Firm Sales	\$15.2	\$1.6	\$0.6	\$2.3	\$19.7
Induced Inter-Firm Sales	\$43.1	\$2.7	\$1.2	\$4.2	\$51.2
<b>Total Inter-Firm Sales</b>	<b>\$145.6</b>	<b>\$6.1</b>	<b>\$2.8</b>	<b>\$9.4</b>	<b>\$163.9</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Inter-Firm Sales	\$6.5	\$0.1	\$0.1	\$0.2	\$6.9
Indirect Inter-Firm Sales	\$1.1	\$0.1	\$0.0	\$0.2	\$1.5
Induced Inter-Firm Sales	\$3.2	\$0.2	\$0.1	\$0.3	\$3.8
<b>Total Inter-Firm Sales</b>	<b>\$10.8</b>	<b>\$0.4</b>	<b>\$0.2</b>	<b>\$0.7</b>	<b>\$12.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Inter-Firm Sales	\$1.4	\$7.5	\$0.2	\$0.5	\$9.6
Indirect Inter-Firm Sales	\$0.7	\$1.0	\$0.1	\$0.3	\$2.1
Induced Inter-Firm Sales	\$1.3	\$3.0	\$0.2	\$0.6	\$5.2
<b>Total Inter-Firm Sales</b>	<b>\$3.4</b>	<b>\$11.6</b>	<b>\$0.6</b>	<b>\$1.4</b>	<b>\$16.9</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Inter-Firm Sales</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 63: Inter-Firm Sales Associated with Students' Expenditure – All Campuses and Ten-Year Average



## 9.0 Outputs – Visitors’ Expenditures – All Campuses

The direct, indirect and induced economic impacts estimated for expenditures by visitors to all MUN campuses are described below. The specific economic impacts analyzed were:

1. employment;
2. salaries and benefits;
3. GDP;
4. municipal revenues;
5. provincial revenues;
6. federal revenues; and
7. inter-firm sales.

### 9.1 Outputs – Visitors’ Expenditures – All Campuses - Employment

The employment impacts for visitors’ expenditures at MUN by campus are presented in Table 70 and Figure 64 below. In addition to considering the direct, indirect, and induced impacts, the analysis assessed the employment impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The expenditures by visitors, across all campuses, have resulted in 114.8 full-time-equivalent jobs within NL. This consisted of 91.2 direct jobs, 7.8 jobs in businesses that supply goods and services to the university and 15.8 jobs in the services sector. The majority of jobs, 87.5%, were created on the Avalon Peninsula. The Corner Brook/Deer Lake region accounted for 7.9% of the jobs, 0.7% of the jobs were created in the Labrador region, and the remaining 3.9% of the jobs were spread throughout the rest of the island.

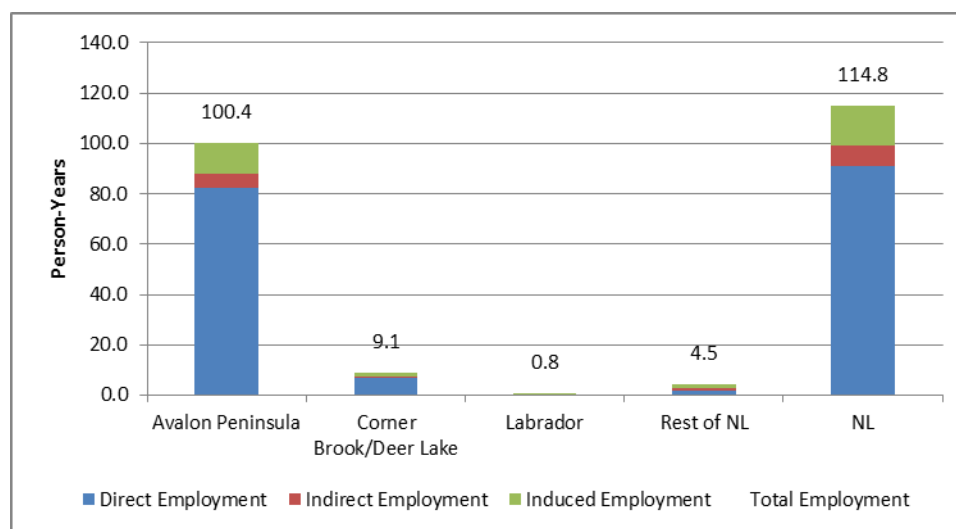
The analysis of total employment by campus reveals that 87.4% of the total employment (100.3 person-years of 114.8 person-years) was brought about by the St. John’s campus, 5.6% of the employment (6.4 person-years) came about through the Marine Institute, and 7.1% of the employment (8.2 person-years) was generated on the Grenfell campus. None of the total employment was created in Labrador.

**Table 70: Employment Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (Person-Years)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Employment	82.6	6.7	0.2	1.8	91.2
Indirect Employment	5.5	0.9	0.2	1.1	7.8
Induced Employment	12.3	1.5	0.4	1.6	15.8
<b>Total Employment</b>	<b>100.4</b>	<b>9.1</b>	<b>0.8</b>	<b>4.5</b>	<b>114.8</b>
<b>Annual Average Over 10 Years – St. John’s campus</b>					
Direct Employment	77.5	0.5	0.2	1.4	79.7
Indirect Employment	5.0	0.7	0.2	0.9	6.8
Induced Employment	11.4	0.8	0.3	1.4	13.8
<b>Total Employment</b>	<b>93.9</b>	<b>2.0</b>	<b>0.7</b>	<b>3.8</b>	<b>100.3</b>

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Employment	4.9	0.0	0.0	0.1	5.1
Indirect Employment	0.3	0.0	0.0	0.1	0.4
Induced Employment	0.7	0.0	0.0	0.1	0.9
<b>Total Employment</b>	<b>6.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.2</b>	<b>6.4</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Employment	0.1	6.1	0.0	0.2	6.5
Indirect Employment	0.2	0.2	0.0	0.1	0.6
Induced Employment	0.2	0.7	0.0	0.2	1.1
<b>Total Employment</b>	<b>0.6</b>	<b>7.0</b>	<b>0.1</b>	<b>0.5</b>	<b>8.2</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Employment	0.0	0.0	0.0	0.0	0.0
Indirect Employment	0.0	0.0	0.0	0.0	0.0
Induced Employment	0.0	0.0	0.0	0.0	0.0
<b>Total Employment</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Figure 64: Employment Associated with Visitors' Expenditures – All Campuses and Ten-Year Average



## 9.2 Outputs – Visitors' Expenditures – All Campuses – Salaries and Benefits

The salaries and benefits impacts for visitors' expenditures at MUN by campus are shown in Table 71 and Figure 65 below. In addition to distinguishing the impacts by their direct, indirect, and induced components, the analysis evaluated the salaries and benefits impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for the Labrador as a distinct region, and for the rest of Newfoundland.

The expenditures by visitors, across all campuses, have resulted in \$3.1 million in salaries and benefits being paid within NL. This consisted of \$2.2 direct salaries and benefits, \$0.3 million in salaries and benefits paid by firms that supply goods and services to the university, and \$0.6 million in salaries and benefits paid by firms in the services sector. The majority of the salaries and benefits, 83.9%, occurred

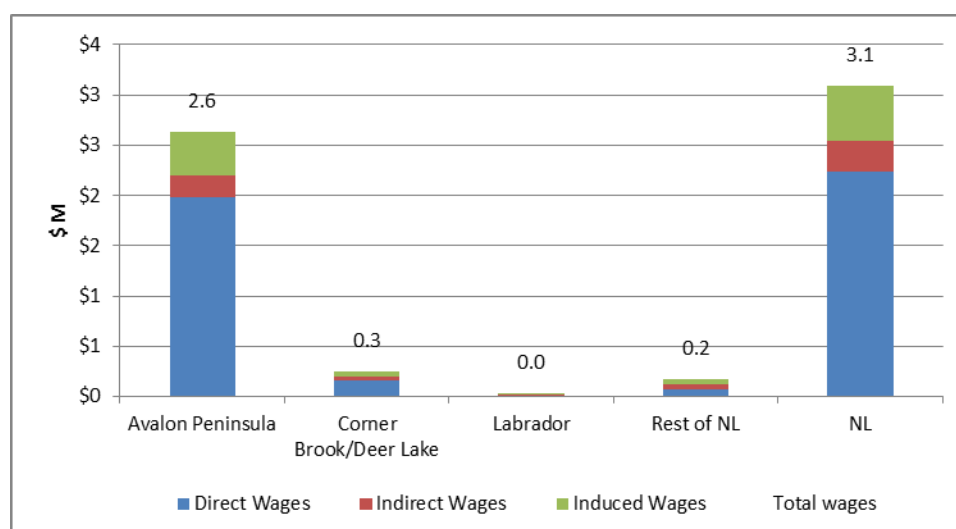
within the Avalon Peninsula and 9.7% occurred in the Corner Brook/Deer Lake region. None salaries and benefits was paid to individuals in the Labrador region, and the remaining 6.5% salaries and benefits were spread throughout the rest of the island

The analysis of total salaries and benefits by campus revealed that 87.1% of the total salaries and benefits (\$2.7 million of \$3.1 million) were accounted for by the St. John's campus, 6.5% of the salaries and benefits (\$0.2 million) occurred through the Marine Institute, and 6.5% of the salaries and benefits (\$0.2 million) were felt through the Grenfell campus.

**Table 71: Salaries and Benefits Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Salaries/Benefits	\$2.0	\$0.2	\$0.0	\$0.1	\$2.2
Indirect Salaries/Benefits	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Induced Salaries/Benefits	\$0.4	\$0.1	\$0.0	\$0.1	\$0.6
<b>Total Salaries/Benefits</b>	<b>\$2.6</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$3.1</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Salaries/Benefits	\$1.9	\$0.0	\$0.0	\$0.1	\$1.9
Indirect Salaries/Benefits	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Induced Salaries/Benefits	\$0.4	\$0.0	\$0.0	\$0.0	\$0.5
<b>Total Salaries/Benefits</b>	<b>\$2.4</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$2.7</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Salaries/Benefits	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Salaries/Benefits	\$0.0	\$0.1	\$0.0	\$0.0	\$0.2
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.2</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 65: Salaries and Benefits Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)



### 9.3 Outputs – Visitors' Expenditures – All Campuses – GDP

The GDP impacts for visitors' expenditures at MUN by campus are provided in Table 72 and Figure 66 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis considered the GDP impacts for the province as whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of Newfoundland.

The expenditures by visitors, across all campuses, have resulted in \$6.0 million in GDP generated within NL. This consisted of \$3.8 million in direct GDP, \$0.6 million in GDP through firms that supply goods and services to the university and \$1.6 million in GDP through the services sector. Specifically, 85.0% of the GDP occurred on the Avalon Peninsula, 8.3% was generated in the Corner Brook/Deer Lake region, 1.7% DP was realized in Labrador, and the remaining 5.0% of GDP was created throughout the rest of the island.

The analysis of total GDP by campus indicated that 86.7% of the total GDP (\$5.2 million of \$6.0 million) was accounted for by the St. John's campus, 5.0% of the GDP (\$0.3 million) originated with the Marine Institute, and 6.7% of the GDP (\$0.4 million) flowed from the Grenfell campus.

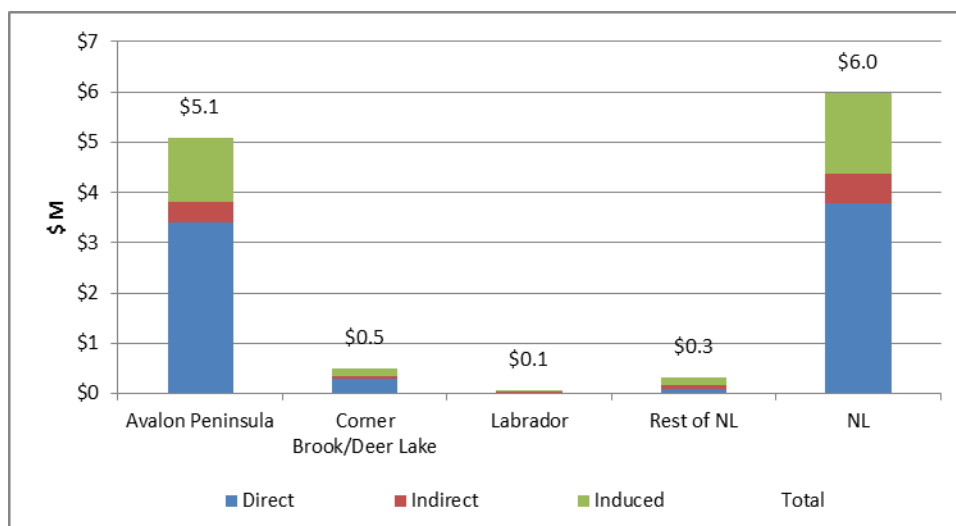
Table 72: GDP Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct GDP	\$3.4	\$0.3	\$0.0	\$0.1	\$3.8
Indirect GDP	\$0.4	\$0.1	\$0.0	\$0.1	\$0.6
Induced GDP	\$1.3	\$0.1	\$0.0	\$0.1	\$1.6
<b>Total GDP</b>	<b>\$5.1</b>	<b>\$0.5</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$6.0</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct GDP	\$3.2	\$0.0	\$0.0	\$0.1	\$3.3
Indirect GDP	\$0.4	\$0.0	\$0.0	\$0.1	\$0.5
Induced GDP	\$1.2	\$0.1	\$0.0	\$0.1	\$1.4



	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Total GDP</b>	<b>\$4.7</b>	<b>\$0.1</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$5.2</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct GDP	\$0.2	\$0.0	\$0.0	\$0.0	\$0.2
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total GDP</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.3</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct GDP	\$0.0	\$0.2	\$0.0	\$0.0	\$0.3
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.0	\$0.1	\$0.0	\$0.0	\$0.1
<b>Total GDP</b>	<b>\$0.0</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.4</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total GDP</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 66: GDP Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)



## 9.4 Outputs – Visitors' Expenditures – All Campuses – Municipal Revenues

The municipal tax impacts for visitors' expenditures at MUN by campus are illustrated in Table 73 and Figure 67 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis examined the municipal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The expenditures by visitors, across all of its campuses, have resulted in \$0.17 million in municipal revenues generated within NL. This consisted of \$0.11 million in direct municipal revenues, no municipal revenues from firms that supply goods and services to the university and \$0.06 million in

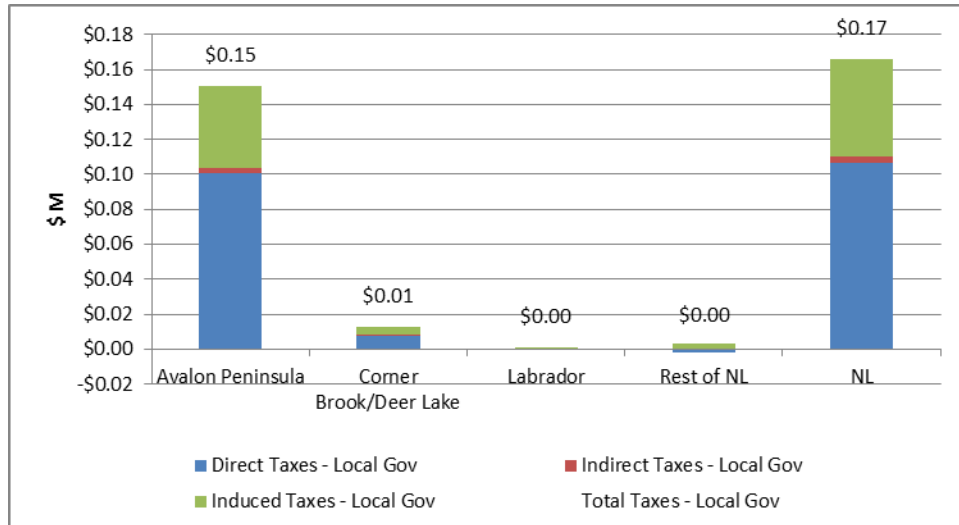
municipal revenues from the services. The majority of the municipal revenues, 88.2%, were created by the expenditures of visitors in the Avalon region, 5.9% of the municipal revenues flowed from the Corner Brook/Deer Lake region, and none of the municipal revenues in Labrador or throughout the rest of the island.

The analysis of total municipal revenues by campus indicated that 88.2% of the total municipal revenues (\$0.15 million of \$0.17 million) were accounted for by the St. John's campus, a further 5.9% (\$0.01 million) resulted from the Marine Institute, and 5.9% of the municipal revenues (\$0.01 million) originated with the Grenfell campus.

**Table 73: Municipal Revenues Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Municipal Revenues	\$0.10	\$0.01	\$0.00	\$0.00	\$0.11
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.05	\$0.00	\$0.00	\$0.00	\$0.06
<b>Total Municipal Revenues</b>	<b>\$0.15</b>	<b>\$0.01</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.17</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Municipal Revenues	\$0.09	\$0.00	\$0.00	\$0.00	\$0.09
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.04	\$0.00	\$0.00	\$0.00	\$0.05
<b>Total Municipal Revenues</b>	<b>\$0.14</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.15</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Municipal Revenues	\$0.01	\$0.00	\$0.00	\$0.00	\$0.01
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Municipal Revenues</b>	<b>\$0.01</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.01</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Municipal Revenues	\$0.00	\$0.01	\$0.00	\$0.00	\$0.01
Indirect Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Induced Municipal Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Municipal Revenues</b>	<b>\$0.00</b>	<b>\$0.01</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.01</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 67: Municipal Revenues Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)



## 9.5 Outputs – Visitors' Expenditures – All Campuses – Provincial Revenues

The provincial tax impacts for visitors' expenditures at MUN by campus are given in Table 74 and Figure 68 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the provincial tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The expenditures by visitors, across all campuses, have resulted in \$0.9 million in provincial revenues generated within NL. This consisted of \$0.5 million in direct provincial revenues, no provincial revenues was from firms that supply goods and services to the university, and \$0.3 million in provincial revenues from the services sector. Specifically, 88.9% of the provincial revenues were generated in the Avalon region, 11.1% occurred within the Corner Brook/Deer Lake region, and none of the provincial revenues resulted in Labrador or from communities in the rest of the island

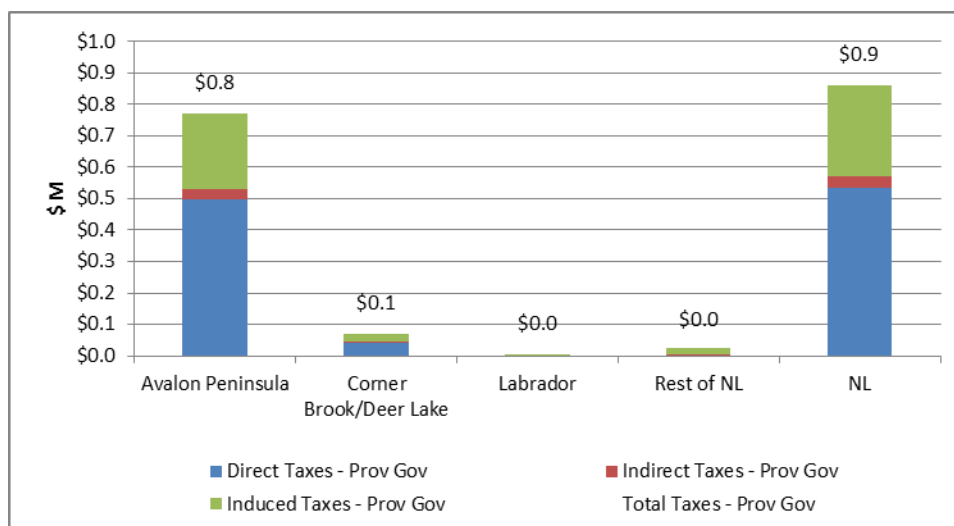
The analysis of total provincial revenues by campus indicated that 88.9% of the total provincial revenues (\$0.8 million of \$0.9 million) were accounted for by the St. John's campus. A further 11.1% of the provincial revenues (\$0.1 million) were generated by the Grenfell campus.

Table 74: Provincial Revenues Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Provincial Revenues	\$0.5	\$0.0	\$0.0	\$0.0	\$0.5
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
<b>Total Provincial Revenues</b>	<b>\$0.8</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.9</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Provincial Revenues	\$0.5	\$0.0	\$0.0	\$0.0	\$0.5
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Total Provincial Revenues</b>	<b>\$0.7</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.8</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 68: Provincial Revenues Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)



## 9.6 Outputs – Visitors' Expenditures – All Campuses – Federal Revenues

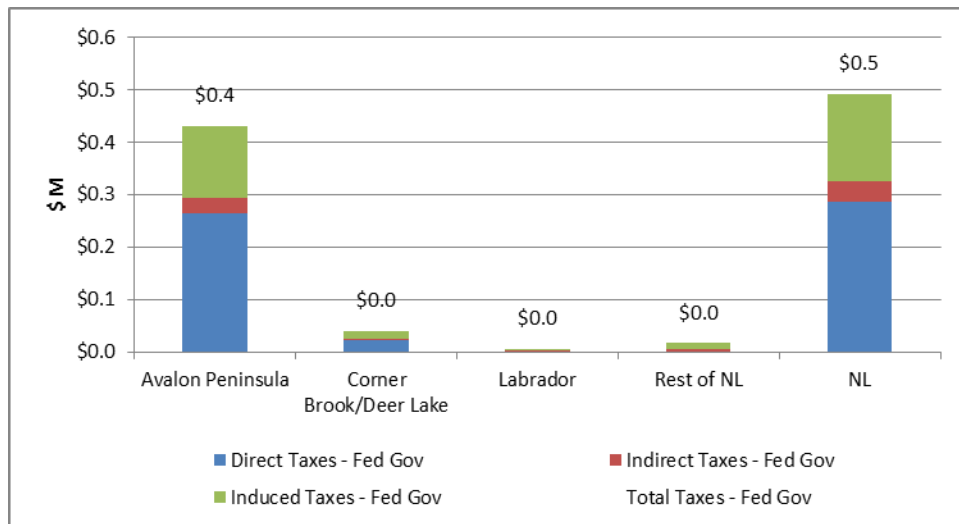
The federal tax impacts for visitors' expenditures at MUN by campus are indicated in Table 75 and Figure 69 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the federal tax impacts for the province as a whole, for the Avalon Peninsula, for the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The expenditures by visitors, across all campuses, have resulted in \$0.5 million in federal revenues generated within. This consisted of \$0.3 million in direct federal revenues, and \$0.2 million in federal revenues from the services.

Table 75: Federal Revenues Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Federal Revenues	\$0.3	\$0.0	\$0.0	\$0.0	\$0.3
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.2
<b>Total Federal Revenues</b>	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.5</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Federal Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total Federal Revenues</b>	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.4</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 69: Federal Revenues Associated with Visitors' Expenditures – All Campuses and Ten-Year Average (\$M)



## 9.7 Outputs – Visitors’ Expenditures – All Campuses – Inter-Firm Sales

The inter-firm sales impacts for visitors’ expenditures at MUN by campus are displayed in Table 76 and Figure 70 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the inter-firm sales impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

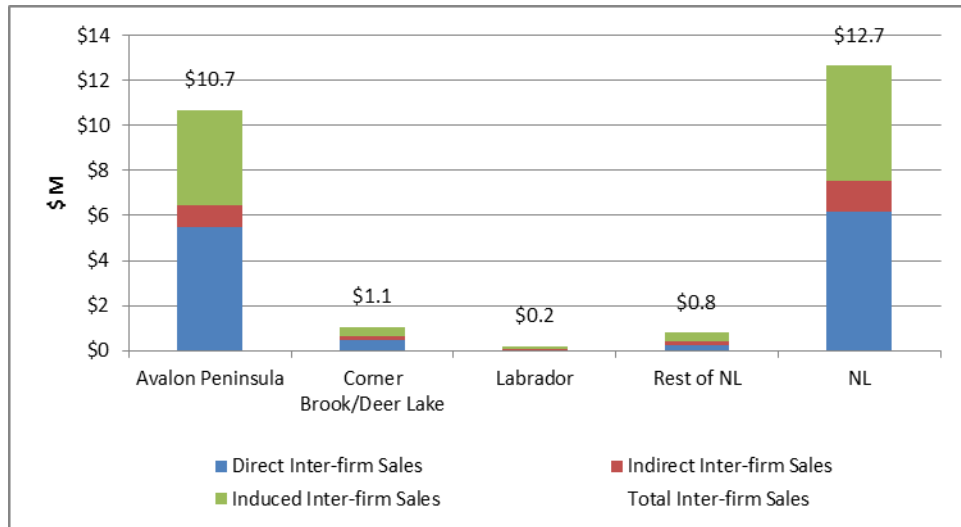
The expenditures by visitors, across all campuses, have resulted in \$12.7 million in inter-firm sales generated within NL. This consisted of \$6.2 million in direct inter-firm sales, \$1.3 million in inter-firm sales from firms that supply goods and services to the university and \$5.1 million in inter-firm sales from the services sector. The majority of the inter-firm sales, 84.3%, were generated in the Avalon region, 8.7% of the inter-firm sales resulted within the Corner Brook/Deer Lake region, 1.6% of the inter-firm sales came from Labrador, and the remaining 6.3% of the inter-firm sales were generated throughout the rest of the island.

The analysis of total inter-firm sales by campus indicated that 87.4% of the total inter-firm sales (\$11.1 million of \$12.7 million) were accounted for by the St. John’s campus, a further 5.5% of the inter-firm sales (\$0.7 million) emanated from the Marine Institute, and 7.1% of the inter-firm sales resulted from the Grenfell campus.

**Table 76: Inter-Firm Sales Associated with Visitors’ Expenditures – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Inter-Firm Sales	\$5.5	\$0.5	\$0.0	\$0.2	\$6.2
Indirect Inter-Firm Sales	\$1.0	\$0.1	\$0.0	\$0.2	\$1.3
Induced Inter-Firm Sales	\$4.2	\$0.4	\$0.1	\$0.4	\$5.1
<b>Total Inter-Firm Sales</b>	<b>\$10.7</b>	<b>\$1.1</b>	<b>\$0.2</b>	<b>\$0.8</b>	<b>\$12.7</b>
<b>Annual Average Over 10 Years – St. John’s campus</b>					
Direct Inter-Firm Sales	\$5.1	\$0.1	\$0.0	\$0.2	\$5.4
Indirect Inter-Firm Sales	\$0.9	\$0.1	\$0.0	\$0.2	\$1.2
Induced Inter-Firm Sales	\$3.9	\$0.2	\$0.1	\$0.3	\$4.5
<b>Total Inter-Firm Sales</b>	<b>\$9.9</b>	<b>\$0.3</b>	<b>\$0.1</b>	<b>\$0.7</b>	<b>\$11.1</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Inter-Firm Sales	\$0.3	\$0.0	\$0.0	\$0.0	\$0.3
Indirect Inter-Firm Sales	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Inter-Firm Sales	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
<b>Total Inter-Firm Sales</b>	<b>\$0.6</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.7</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Inter-Firm Sales	\$0.0	\$0.4	\$0.0	\$0.0	\$0.4
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Induced Inter-Firm Sales	\$0.1	\$0.3	\$0.0	\$0.0	\$0.4
<b>Total Inter-Firm Sales</b>	<b>\$0.1</b>	<b>\$0.7</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.9</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Inter-Firm Sales</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 70: Inter-Firm Sales Associated with Visitors' Expenditures – All Campuses and Ten-Year Average



## 10.0 Outputs – Value of Higher Education – All Campuses

The direct, indirect and induced economic impacts estimated for the enhanced earnings of graduates from all MUN campuses are described below. The specific economic impacts analyzed were

1. employment;
2. salaries and benefits;
3. GDP;
4. municipal revenues;
5. provincial revenues;
6. federal revenues; and
7. inter-firm sales.

### 10.1 Outputs – Value of Higher Education – All Campuses - Employment

The employment impacts for the elevated expenditures associated with higher incomes resulting from MUN graduates by campus are presented in Table 77 and Figure 71 below. In addition to the direct, indirect, and induced impacts, the analysis assessed the employment impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador, and for the rest of Newfoundland.

The enhanced earnings of graduates, across all campuses, have resulted in 3,617 full-time-equivalent jobs within NL. This consisted of 2,535 direct jobs, 331 jobs in businesses that supply goods and services to the university, and 751 jobs in the services sector. The Avalon Peninsula region generated 85.1% of the jobs, the Corner Brook/Deer Lake region accounted for 4.7%; 1.8% of the jobs were created in Labrador, and the remaining 8.4% were spread throughout the rest of the island.

The analysis of total employment by campus revealed that 86.9% of the total employment (3,143 person-years of 3,125 person-years) was accounted for by the St. John's campus, 6.0% of the employment (219 person-years) was traced to the Marine Institute, while 7.1% of the employment (255 person-years) was generated by the Grenfell campus.

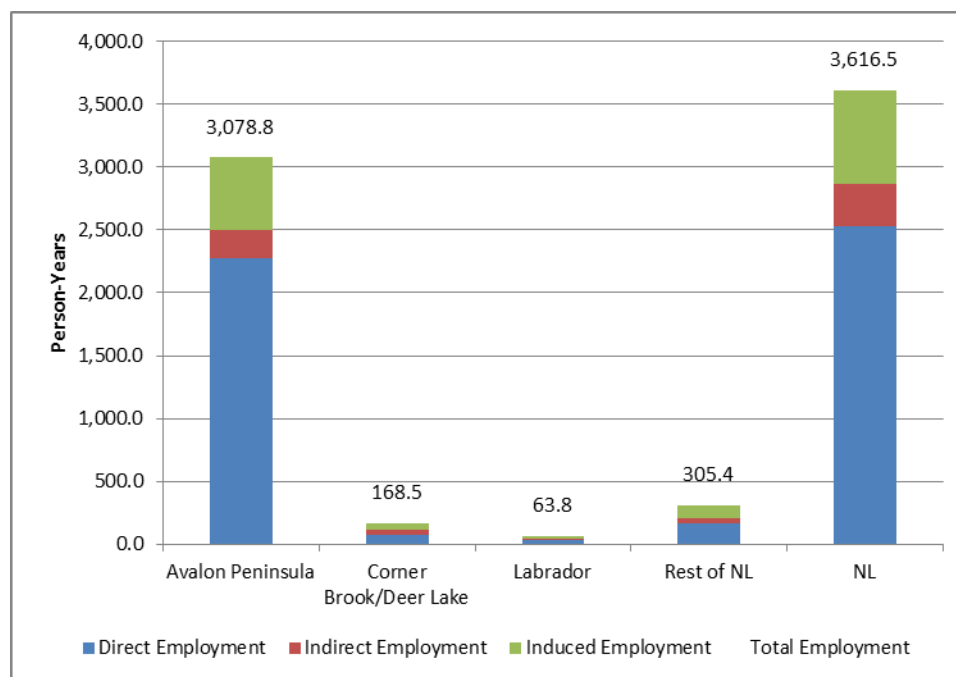
**Table 77: Employment Associated with Value of Higher Education – All Campuses and Ten-Year Average (Person-Years)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Employment	2,270.9	73.3	30.9	159.4	2,534.5
Indirect Employment	229.6	39.6	11.5	50.0	330.7
Induced Employment	578.3	55.6	21.4	96.0	751.4
<b>Total Employment</b>	<b>3,078.8</b>	<b>168.5</b>	<b>63.8</b>	<b>305.4</b>	<b>3,616.5</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Employment	1973.6	63.7	26.8	138.6	2202.7
Indirect Employment	199.6	34.4	10.0	43.5	287.4
Induced Employment	502.6	48.4	18.6	83.4	653.0



	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Total Employment</b>	<b>2675.9</b>	<b>146.4</b>	<b>55.4</b>	<b>265.5</b>	<b>3143.2</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Employment	137.2	4.4	1.9	9.6	153.1
Indirect Employment	13.9	2.4	0.7	3.0	20.0
Induced Employment	34.9	3.4	1.3	5.8	45.4
<b>Total Employment</b>	<b>186.0</b>	<b>10.2</b>	<b>3.9</b>	<b>18.5</b>	<b>218.5</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Employment	160.0	5.2	2.2	11.2	178.6
Indirect Employment	16.2	2.8	0.8	3.5	23.3
Induced Employment	40.8	3.9	1.5	6.8	52.9
<b>Total Employment</b>	<b>217.0</b>	<b>11.9</b>	<b>4.5</b>	<b>21.5</b>	<b>254.9</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Employment	0.0	0.0	0.0	0.0	0.0
Indirect Employment	0.0	0.0	0.0	0.0	0.0
Induced Employment	0.0	0.0	0.0	0.0	0.0
<b>Total Employment</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Figure 71: Employment Associated with Value of Higher Education– All Campuses and Ten-Year Average



## 10.2 Outputs – Value of Higher Education –All Campuses – Salaries and Benefits

The salaries and benefits impacts for the elevated expenditures associated with higher incomes resulting from MUN graduates by campus are shown in Table 78 and Figure 72 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis evaluated the salaries

and benefits impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of the island.

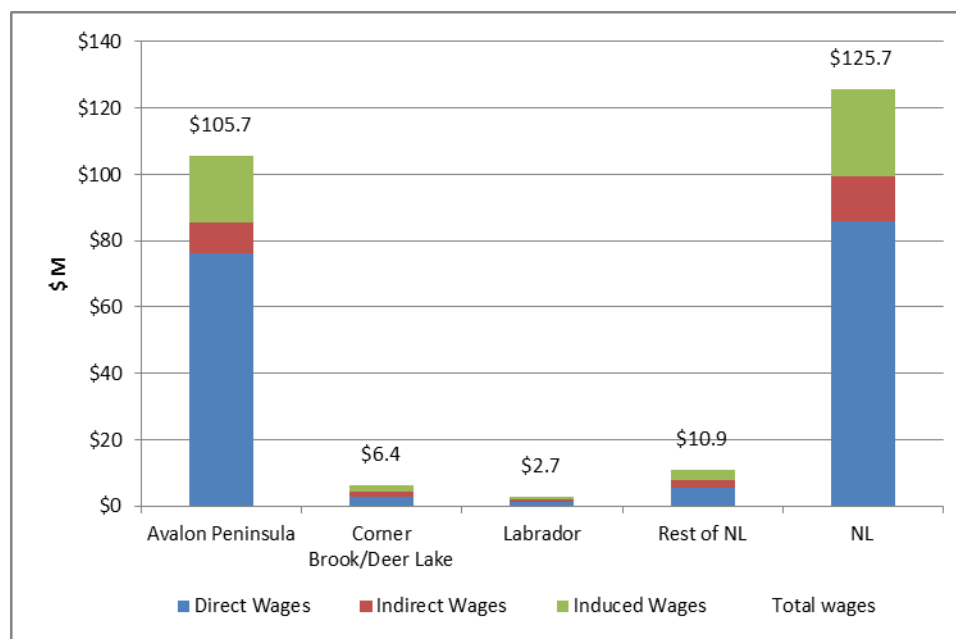
The elevated expenditures associated with higher incomes resulting from MUN graduates, across all campuses, have resulted in \$125.7 million in salaries and benefits being paid within NL. This consisted of \$85.7 million in direct salaries and benefits, \$13.8 million in salaries and benefits paid by firms that supply goods and services to the university and \$26.2 million in salaries and benefits paid by firms in the services sector. The majority of the salaries and benefits, 84.1%, were generated within the Avalon Peninsula region, 5.1% of the salaries and benefits accrued to the Corner Brook/Deer Lake region, less than 2.1% of the salaries and benefits were paid to individuals in the Labrador region, and the remaining 8.7% was spread throughout the rest of the island.

The analysis of total salaries and benefits by campus revealed that 86.9% of the total salaries and benefits (\$109.3 million of \$125.7 million) were accounted for by the St. John's campus, 6.0% of the salaries and benefits (\$7.6 million) were created through the Marine Institute, and 7.1% of the salaries and benefits (\$8.9 million) originated with the Grenfell campus.

**Table 78: Salaries and Benefits Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Salaries/Benefits	\$76.05	\$2.77	\$1.31	\$5.53	\$85.66
Indirect Salaries/Benefits	\$9.60	\$1.59	\$0.53	\$2.09	\$13.81
Induced Salaries/Benefits	\$20.05	\$2.01	\$0.85	\$3.33	\$26.24
<b>Total Salaries/Benefits</b>	<b>\$105.69</b>	<b>\$6.37</b>	<b>\$2.69</b>	<b>\$10.95</b>	<b>\$125.71</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Salaries/Benefits	\$66.1	\$2.4	\$1.1	\$4.8	\$74.4
Indirect Salaries/Benefits	\$8.3	\$1.4	\$0.5	\$1.8	\$12.0
Induced Salaries/Benefits	\$17.4	\$1.7	\$0.7	\$2.9	\$22.8
<b>Total Salaries/Benefits</b>	<b>\$91.9</b>	<b>\$5.5</b>	<b>\$2.3</b>	<b>\$9.5</b>	<b>\$109.3</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Salaries/Benefits	\$4.6	\$0.2	\$0.1	\$0.3	\$5.2
Indirect Salaries/Benefits	\$0.6	\$0.1	\$0.0	\$0.1	\$0.8
Induced Salaries/Benefits	\$1.2	\$0.1	\$0.1	\$0.2	\$1.6
<b>Total Salaries/Benefits</b>	<b>\$6.4</b>	<b>\$0.4</b>	<b>\$0.2</b>	<b>\$0.7</b>	<b>\$7.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Salaries/Benefits	\$5.4	\$0.2	\$0.1	\$0.4	\$6.0
Indirect Salaries/Benefits	\$0.7	\$0.1	\$0.0	\$0.1	\$1.0
Induced Salaries/Benefits	\$1.4	\$0.1	\$0.1	\$0.2	\$1.8
<b>Total Salaries/Benefits</b>	<b>\$7.4</b>	<b>\$0.4</b>	<b>\$0.2</b>	<b>\$0.8</b>	<b>\$8.9</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Salaries/Benefits	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Salaries/Benefits</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 72: Salaries and Benefits Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)



### 10.3 Outputs – Value of Higher Education – All Campuses – GDP

The GDP impacts for the elevated expenditures associated with higher incomes resulting from MUN graduates by campus are provided in Table 79 and Figure 73 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis considered the GDP impacts for the province as a whole, for the Avalon Peninsula separately, for the Corner Brook/Deer Lake region, for Labrador as a distinct region, and for the rest of Newfoundland.

The elevated expenditures associated with higher incomes resulting from MUN graduates, across all campuses, have resulted in \$366.1 million in GDP generated within NL. This consisted of \$266.0 direct GDP, \$24.1 million in GDP through firms that supply goods and services to the university and \$76.0 million in GDP through the services sector. The majority of the GDP, 89.4%, occurred in the Avalon region, 3.3% of the GDP resulted in the Corner Brook/Deer Lake region, 1.5% of the GDP originated in the Labrador region, and the remaining 5.8% of the GDP was spread throughout the rest of the island.

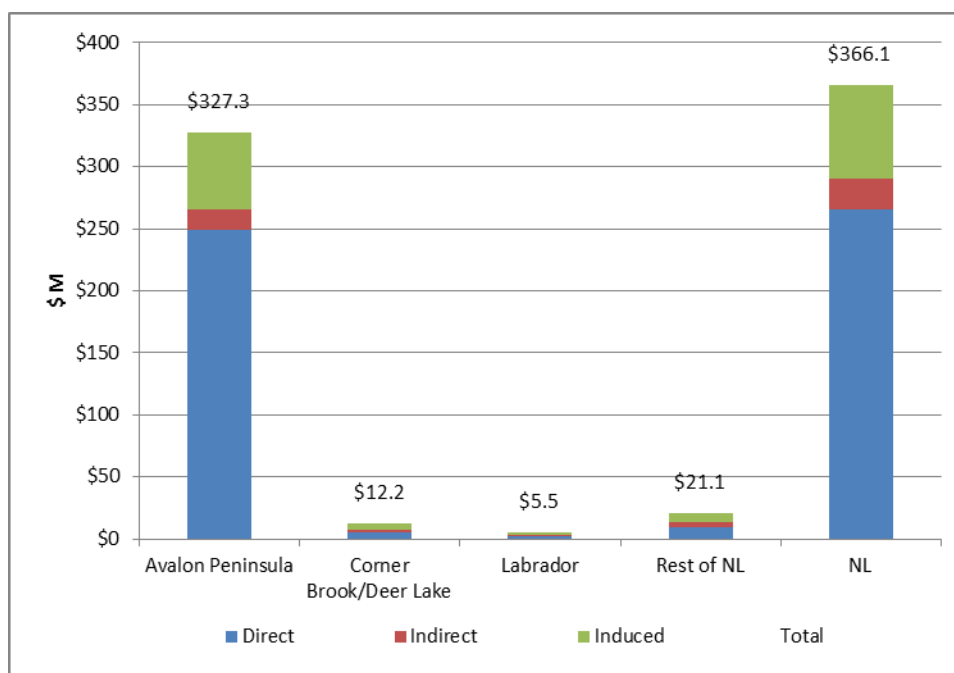
The analysis of total GDP by campus indicated that 86.9% of the total GDP (\$318.2 million of \$333.01 million) was accounted for by the St. John's campus, a further 6.0% of the GDP (\$22.1 million) resulted the Marine Institute, and 7.1% if the GDP (\$25.8 million) was associated with the Grenfell campus.

Table 79: GDP Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Annual Average Over 10 Years – All Campuses					
Direct GDP	\$249.24	\$4.82	\$2.43	\$9.47	\$265.96
Indirect GDP	\$16.82	\$2.58	\$0.99	\$3.68	\$24.07

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Induced GDP	\$61.28	\$4.77	\$2.06	\$7.92	\$76.04
<b>Total GDP</b>	<b>\$327.34</b>	<b>\$12.18</b>	<b>\$5.48</b>	<b>\$21.07</b>	<b>\$366.07</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct GDP	\$216.6	\$4.2	\$2.1	\$8.2	\$231.2
Indirect GDP	\$14.6	\$2.2	\$0.9	\$3.2	\$20.9
Induced GDP	\$53.3	\$4.1	\$1.8	\$6.9	\$66.1
<b>Total GDP</b>	<b>\$284.5</b>	<b>\$10.6</b>	<b>\$4.8</b>	<b>\$18.3</b>	<b>\$318.2</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct GDP	\$15.1	\$0.3	\$0.1	\$0.6	\$16.1
Indirect GDP	\$1.0	\$0.2	\$0.1	\$0.2	\$1.5
Induced GDP	\$3.7	\$0.3	\$0.1	\$0.5	\$4.6
<b>Total GDP</b>	<b>\$19.8</b>	<b>\$0.7</b>	<b>\$0.3</b>	<b>\$1.3</b>	<b>\$22.1</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct GDP	\$17.6	\$0.3	\$0.2	\$0.7	\$18.7
Indirect GDP	\$1.2	\$0.2	\$0.1	\$0.3	\$1.7
Induced GDP	\$4.3	\$0.3	\$0.1	\$0.6	\$5.4
<b>Total GDP</b>	<b>\$23.1</b>	<b>\$0.9</b>	<b>\$0.4</b>	<b>\$1.5</b>	<b>\$25.8</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced GDP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total GDP</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 73: GDP Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)



## 10.4 Outputs – Value of Higher Education - All Campuses – Municipal Revenues

The municipal tax impacts for the elevated expenditures associated with higher incomes resulting from MUN graduates by campus are illustrated in Table 80 and Figure 74 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis examined the municipal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The elevated expenditures associated with higher incomes resulting from MUN graduates, across all of its campuses, have resulted in \$12.7 million in municipal revenues generated within NL. This consisted of \$9.9 million in direct municipal revenues, \$0.2 million in municipal revenues from firms that supply goods and services to the university and \$2.7 million in municipal revenues from the services sector. The majority of the municipal revenues, 96.2%, were generated within the Avalon Peninsula region, 1.3% of the municipal revenues occurred in the Corner Brook/Deer Lake region, less than 0.6% of the municipal revenues resulted in Labrador, and the remaining 2.0% of the municipal revenues were received throughout the rest of the island.

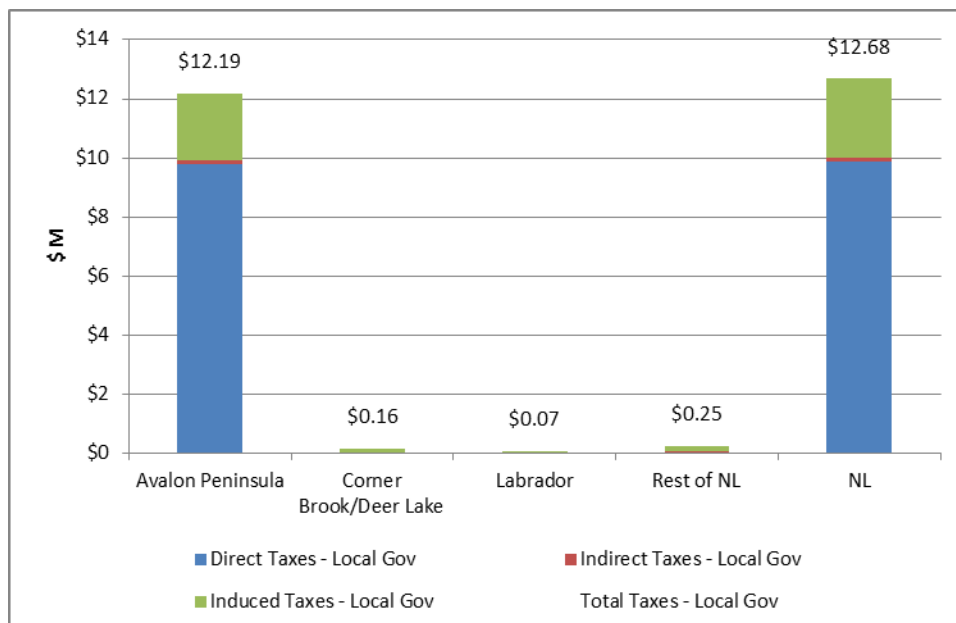
The analysis of total municipal revenues by campus indicated that 86.9% of the total municipal revenues (\$11.0 million of \$12.7 million) were accounted for by the St. John's campus, a further 6.0% of the municipal revenues (\$0.6 million) resulted from the Marine Institute, and 7.1% of the municipal revenues were associated with the Grenfell campus.

**Table 80: Municipal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Municipal Revenues	\$9.77	\$0.02	\$0.02	\$0.04	\$9.85
Indirect Municipal Revenues	\$0.15	\$0.01	\$0.01	\$0.00	\$0.17
Induced Municipal Revenues	\$2.28	\$0.12	\$0.05	\$0.20	\$2.66
<b>Total Municipal Revenues</b>	<b>\$12.19</b>	<b>\$0.16</b>	<b>\$0.07</b>	<b>\$0.25</b>	<b>\$12.68</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Municipal Revenues	\$8.5	\$0.0	\$0.0	\$0.0	\$8.6
Indirect Municipal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Municipal Revenues	\$2.0	\$0.1	\$0.0	\$0.2	\$2.3
<b>Total Municipal Revenues</b>	<b>\$10.6</b>	<b>\$0.1</b>	<b>\$0.1</b>	<b>\$0.2</b>	<b>\$11.0</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Municipal Revenues	\$0.6	\$0.0	\$0.0	\$0.0	\$0.6
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.2
<b>Total Municipal Revenues</b>	<b>\$0.7</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.8</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Municipal Revenues	\$0.7	\$0.0	\$0.0	\$0.0	\$0.7
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.2	\$0.0	\$0.0	\$0.0	\$0.2
<b>Total Municipal Revenues</b>	<b>\$0.9</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.9</b>

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Municipal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Municipal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

**Figure 74: Municipal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)**



## 10.5 Outputs – Value of Higher Education – All Campuses – Provincial Revenues

The provincial tax impacts for the elevated expenditures associated with higher incomes resulting from MUN graduates by campus are given in Table 81 and Figure 75 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the provincial tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

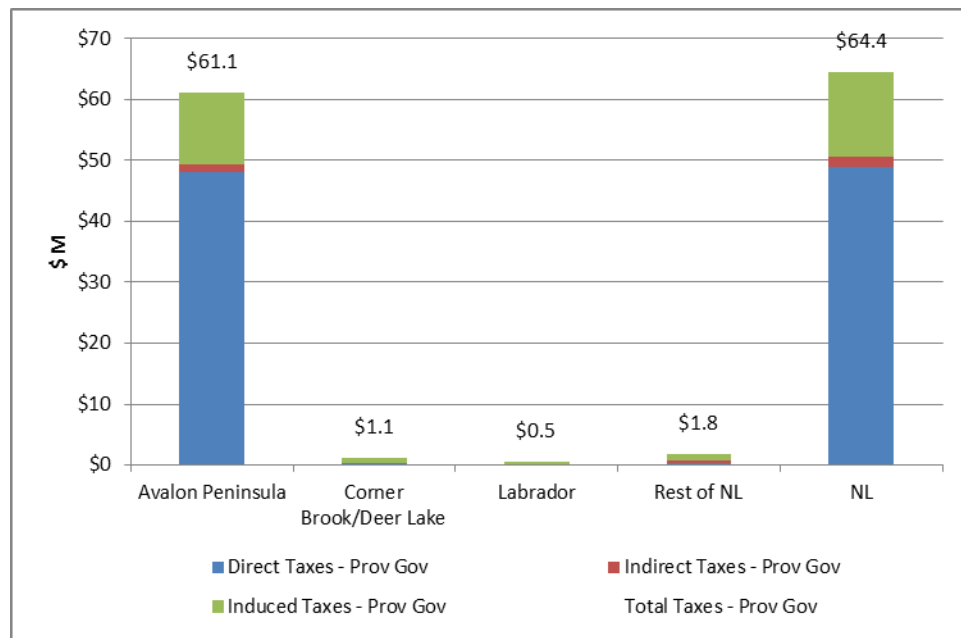
The elevated expenditures associated with higher incomes resulting from MUN graduates, across all of its campuses, have resulted in \$64.4 million in provincial revenues generated within NL. This consisted of \$48.9 million in direct provincial revenues, \$1.8 million in provincial revenues from firms that supply goods and services to the university and \$13.8 million in provincial revenues from the services sector. The majority of the provincial revenues, 94.8%, were generated within the Avalon Peninsula region, 1.7% of the provincial revenues were generated within the Corner Brook/Deer Lake region, 0.8% of the provincial revenues came from Labrador and the remaining 2.8% of the provincial revenues occurred in the rest of the island.

The analysis of total provincial revenues by campus indicated that 86.9% of the total provincial revenues (\$56.0 million of \$64.4 million) were accounted for by the St. John's campus, a further 6.0% of the provincial revenues (\$3.9 million) came about through the Marine Institute, and 7.1% of the provincial revenues (\$4.5 million) resulted from the Grenfell campus.

**Table 81: Provincial Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Provincial Revenues	\$48.10	\$0.23	\$0.13	\$0.42	\$48.88
Indirect Provincial Revenues	\$1.32	\$0.17	\$0.07	\$0.24	\$1.80
Induced Provincial Revenues	\$11.64	\$0.69	\$0.29	\$1.12	\$13.75
<b>Total Provincial Revenues</b>	<b>\$61.06</b>	<b>\$1.09</b>	<b>\$0.49</b>	<b>\$1.78</b>	<b>\$64.42</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Provincial Revenues	\$41.8	\$0.2	\$0.1	\$0.4	\$42.5
Indirect Provincial Revenues	\$1.1	\$0.1	\$0.1	\$0.2	\$1.6
Induced Provincial Revenues	\$10.1	\$0.6	\$0.3	\$1.0	\$11.9
<b>Total Provincial Revenues</b>	<b>\$53.1</b>	<b>\$0.9</b>	<b>\$0.4</b>	<b>\$1.5</b>	<b>\$56.0</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Provincial Revenues	\$2.9	\$0.0	\$0.0	\$0.0	\$3.0
Indirect Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Provincial Revenues	\$0.7	\$0.0	\$0.0	\$0.1	\$0.8
<b>Total Provincial Revenues</b>	<b>\$3.7</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$3.9</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Provincial Revenues	\$3.4	\$0.0	\$0.0	\$0.0	\$3.4
Indirect Provincial Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Provincial Revenues	\$0.8	\$0.0	\$0.0	\$0.1	\$1.0
<b>Total Provincial Revenues</b>	<b>\$4.3</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$4.5</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Provincial Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Provincial Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 75: Provincial Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)



## 10.6 Outputs – Value of Higher Education – All Campuses – Federal Revenues

The federal tax impacts for the elevated expenditures associated with higher incomes resulting from MUN graduates by campus are indicated in Table 82 and Figure 76 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the federal tax impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The elevated expenditures associated with higher incomes resulting from MUN graduates, across all of its campuses, have resulted in \$36.5 million in federal revenues generated within NL. This consisted of \$23.2 million in direct federal revenues, \$1.7 million in federal revenues from firms that supply goods and services to the university and \$7.9 million in federal revenues from the services sector. The majority of the federal revenues, 93.0%, were generated in the Avalon region, 2.3% of the federal revenues were created in the Corner Brook/Deer Lake region, 1.0% of the federal revenues occurred in Labrador, and 3.7% federal revenues originated throughout the rest of the island.

The analysis of total federal revenues by campus indicated that 86.9% of the total federal revenues (\$27.2 million of \$31.5 million) were generated by the St. John's campus, 6.0% of the federal revenues (\$2.2 million) resulted from the Marine Institute, and 7.1% of the federal revenues (\$2.6 million) originated with the Grenfell campus.

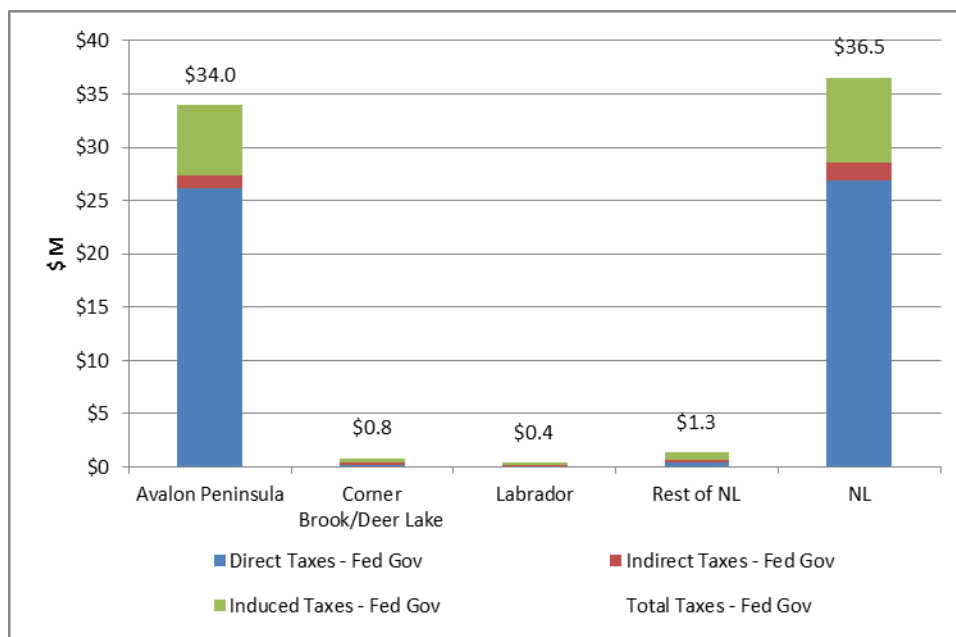
Table 82: Federal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Annual Average Over 10 Years – All Campuses					
Direct Federal Revenues	\$26.1	\$0.2	\$0.1	\$0.4	\$26.9
Indirect Federal Revenues	\$1.2	\$0.2	\$0.1	\$0.2	\$1.7



	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Induced Federal Revenues	\$6.6	\$0.4	\$0.2	\$0.7	\$7.9
<b>Total Federal Revenues</b>	<b>\$34.0</b>	<b>\$0.8</b>	<b>\$0.4</b>	<b>\$1.3</b>	<b>\$36.5</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Federal Revenues	\$22.7	\$0.2	\$0.1	\$0.3	\$23.4
Indirect Federal Revenues	\$1.0	\$0.1	\$0.1	\$0.2	\$1.5
Induced Federal Revenues	\$5.7	\$0.4	\$0.2	\$0.6	\$6.9
<b>Total Federal Revenues</b>	<b>\$29.5</b>	<b>\$0.7</b>	<b>\$0.3</b>	<b>\$1.2</b>	<b>\$31.7</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Federal Revenues	\$1.6	\$0.0	\$0.0	\$0.0	\$1.6
Indirect Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Federal Revenues	\$0.4	\$0.0	\$0.0	\$0.0	\$0.5
<b>Total Federal Revenues</b>	<b>\$2.1</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$2.2</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Federal Revenues	\$1.8	\$0.0	\$0.0	\$0.0	\$1.9
Indirect Federal Revenues	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1
Induced Federal Revenues	\$0.5	\$0.0	\$0.0	\$0.0	\$0.6
<b>Total Federal Revenues</b>	<b>\$2.4</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$2.6</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Indirect Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Federal Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Federal Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 76: Federal Revenues Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)



## 10.7 Outputs – Value of Higher Education – All Campuses – Inter-Firm Sales

The inter-firm sales impacts for the elevated expenditures associated with higher incomes resulting from MUN graduates by campus are displayed in Table 83 and Figure 77 below. In addition to separating out the impacts into their direct, indirect, and induced components, the analysis estimated the inter-firm sales impacts for the province as a whole, for the Avalon Peninsula, the Corner Brook/Deer Lake region, for the Labrador region, and for the rest of Newfoundland.

The elevated expenditures associated with higher incomes resulting from MUN graduates, across all of its campuses, have resulted in \$622.2 million in inter-firm sales generated within NL. This consisted of \$322.2 million in direct inter-firm sales, \$56.0 million in inter-firm sales from firms that supply goods and services to the university and \$244.1 million in inter-firm sales from the services sector. The majority of the inter-firm sales, 85.5%, originated in the Avalon region, 4.6% of the inter-firm sales came from the Corner Brook/Deer Lake region, 2.0% of the inter-firm sales were found in Labrador, and the remaining 8.0% inter-firm sales were felt throughout the rest of the island.

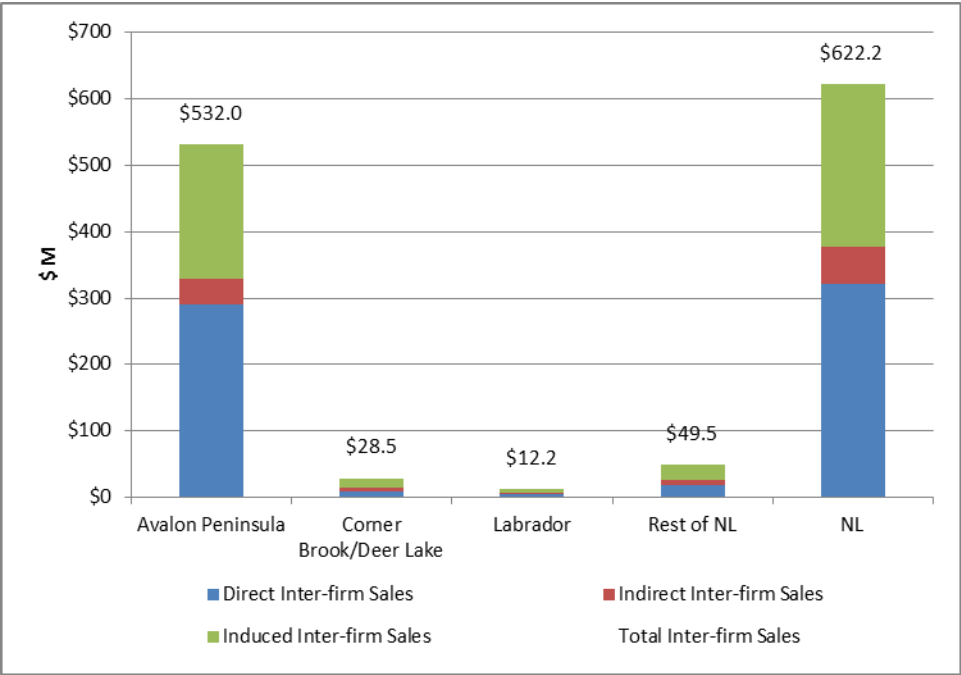
The analysis of total inter-firm sales by campus indicated that 86.9% of the total inter-firm sales (\$540.7 million of \$622.2 million) were accounted for by the St. John's campus, 6.0% of the inter-firm sales (\$28.8 million) resulted from the Marine Institute, and 7.1% of the inter-firm sales (\$43.8 million) were attributable to the Grenfell campus.

**Table 83: Inter-Firm Sales Associated with Value of Higher Education – All Campuses and Ten-Year Average (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Over 10 Years – All Campuses</b>					
Direct Inter-Firm Sales	\$289.7	\$9.3	\$4.5	\$18.6	\$322.2
Indirect Inter-Firm Sales	\$40.3	\$5.5	\$2.1	\$8.1	\$56.0
Induced Inter-Firm Sales	\$202.0	\$13.7	\$5.7	\$22.8	\$244.0
<b>Total Inter-Firm Sales</b>	<b>\$532.0</b>	<b>\$28.5</b>	<b>\$12.2</b>	<b>\$49.5</b>	<b>\$622.2</b>
<b>Annual Average Over 10 Years – St. John's campus</b>					
Direct Inter-Firm Sales	\$251.8	\$8.1	\$3.9	\$16.2	\$280.0
Indirect Inter-Firm Sales	\$35.0	\$4.8	\$1.8	\$7.0	\$48.6
Induced Inter-Firm Sales	\$175.5	\$11.9	\$4.9	\$19.8	\$212.1
<b>Total Inter-Firm Sales</b>	<b>\$462.4</b>	<b>\$24.7</b>	<b>\$10.6</b>	<b>\$43.0</b>	<b>\$540.7</b>
<b>Annual Average Over 10 Years – Marine Institute campus</b>					
Direct Inter-Firm Sales	\$17.5	\$0.6	\$0.3	\$1.1	\$19.5
Indirect Inter-Firm Sales	\$2.4	\$0.3	\$0.1	\$0.5	\$3.4
Induced Inter-Firm Sales	\$12.2	\$0.8	\$0.3	\$1.4	\$14.7
<b>Total Inter-Firm Sales</b>	<b>\$32.1</b>	<b>\$1.7</b>	<b>\$0.7</b>	<b>\$3.0</b>	<b>\$37.6</b>
<b>Annual Average Over 10 Years – Grenfell campus</b>					
Direct Inter-Firm Sales	\$20.4	\$0.7	\$0.3	\$1.3	\$22.7
Indirect Inter-Firm Sales	\$2.8	\$0.4	\$0.1	\$0.6	\$3.9
Induced Inter-Firm Sales	\$14.2	\$1.0	\$0.4	\$1.6	\$17.2
<b>Total Inter-Firm Sales</b>	<b>\$37.5</b>	<b>\$2.0</b>	<b>\$0.9</b>	<b>\$3.5</b>	<b>\$43.8</b>
<b>Annual Average Over 10 Years – Labrador Institute</b>					
Direct Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Indirect Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Induced Inter-Firm Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total Inter-Firm Sales</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 77: Inter-Firm Sales Associated with Value of Higher Education – All Campuses and Ten-Year Average



## 11.0 Summary Output

### 11.1 Summary Outputs – Employment

As shown in Table 84, Figure 78, and Figure 79, the average direct, indirect, and induced full-time-equivalent employment that could be linked to MUN (all campuses) was 11,160 jobs per year — 84.4% (9,420 person-years per year) was associated with the St. John's campus; 8.6% (954 person-years per year) was connected to the Marine Institute; 7.0% (775 person-years per year) was supported by the Grenfell campus, and 0.1% (10 person-years per year) by MUN's operations in Labrador.

Figure 80 and Figure 81 show that 85.6% (9,558 person-years per year) of this employment occurred on the Avalon Peninsula, 7.5% of the employment (832 person-years per year) occurred in the Corner Brook/Deer Lake region, 1.3% of the employment (147 person-years per year) was found in Labrador, and 5.6% of the employment (623 person-years per year) was associated with the rest of Newfoundland and Labrador.

The shares of employment by type of input category for all campuses are highlighted in Figure 82. Operating expenditures generated 5,263 person-years of employment per year, representing 47.2% of the employment that can be legitimately traced to MUN. It is worth highlighting that 32.4% (3,617 person-years per year) of MUN-related employment was linked to the fact that the workforce had a higher education. Following this was employment that resulted from increased students' purchases from the local economy and the income and expenditures that flowed from sponsored research — 973 person-years per year (8.7%) and 655 person-years per year (5.9%), respectively. Pensions accounted for 287 person-years per year or 2.6%, while investment in infrastructure and equipment supported 251 person-years per year (2.2%). Visitors' expenditures were linked to 1.0% (115 person-years per year) of the employment calculated for MUN.

As shown in Figure 83 and Figure 84, the average full-time-equivalent employment that was linked to MUN was 9,420 jobs per year. It is estimated that 89.1% (8,396 person-years per year) of this employment occurred on the Avalon Peninsula; 4.1% (384 person-years per year) was in the Corner Brook/Deer Lake region; 1.2% (117 person-years per year) took place in Labrador; and the residual 5.6% (524 person-years per year) was spread throughout the rest of Newfoundland.

The shares of employment by input category for the St. John's campus are highlighted in Figure 85. The largest category, operating expenditures, generated 4,323 person-years of employment per year. This represented 45.9% of the employment that was associated with the St. John's campus of MUN. The employment associated with having a higher educated workforce corresponded to 33.4% (3,143 person-years per year) of the employment calculated for the St. John's campus. Following this was the employment that resulted from elevated students' expenditures and the purchases and incomes associated with sponsored research at the St. John's campus — 828 person-years per year (8.8%) and 599 person-years per year (6.4%), respectively. The expenditures that flowed from pension income accounted for 236 person-years per year (2.5%) of the employment at the St. John's campus, while investment in infrastructure and equipment explained 190 person-years per year (2.0%). Visitors'

expenditures were connected to 1.1% of the employment at the St. John's campus, which corresponded to 100 person-years per year.

As shown in Figure 86 and Figure 87, the average full-time-equivalent employment that was linked to MUN at its Marine Institute campus was 954 jobs per year. Nearly 91% (819 person-years per year) of this employment occurred on the Avalon Peninsula; 3.8% (35 person-years per year) was in the Corner Brook/Deer Lake region; 1.0% (9 person-years per year) took place in Labrador; and 4.5% (40 person-years per year) was manifested in the rest of Newfoundland.

The shares of employment by input category for the Marine Institute are highlighted in Figure 88. Operating expenditures generated 590 person-years of employment per year, which represented 61.8% of the employment that was connected with the Marine Institute of MUN. The employment associated with having a higher educated workforce was 219 person-years per year (22.9%). This was followed by employment that emanated from students' expenditures and sponsored research — 61 person-years per year (6.4%) and 51 person-years per year (5.3%), respectively. The expenditure of pensions accounted for 19 person-years per year (1.9%), while investment in infrastructure and equipment explained 10 person-years per year (1.0%). Visitors' expenditures were traced to 0.7% of the employment or 6 person-years per year.

As shown in Figure 89 and Figure 90, the average full-time-equivalent employment that was linked to MUN at its Grenfell campus was 775 jobs per year. Approximately 38.4% (297 person-years per year) of this employment occurred on the Avalon Peninsula, with 53.1% (411 person-years per year) in the Corner Brook/Deer Lake region, 1.6% (12 person-years per year) in Labrador, and 7.0% (54 person-years per year) in the rest of Newfoundland.

The shares of employment by input category for the Grenfell campus are highlighted in Figure 91. Operations expenditures generated 340 person-years of employment per year, which represented 43.8% of the employment that was linked to the Grenfell campus of MUN. The employment associated with having a higher educated workforce was 255 person-years per year (32.9%). This was followed by employment that resulted from students' expenditures and sponsored research — 84 person-years per year (10.8%) and 6 person-years per year (0.7%), respectively. Expenditures associated with pensions accounted for 32 person-years per year (4.2%), investment in infrastructure and equipment for 51 person-years per year (6.6%), and visitors' expenditures for 1.1% or 8 person-years per year.

**Table 84: Summary Output – Employment (Person-Years)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Employment Over 10 Years – All Campuses</b>					
Operations	4,588	458	48	169	5,263
Sponsored Research	575	45	8	27	655
Infrastructure/Equipment	172	45	5	29	251
Pensions	244	13	5	24	287
Students' Expenditures	799	93	17	63	973
Visitors' Expenditures	100	9	1	5	115

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Value of Education	3,079	168	64	305	3,617
<b>Total</b>	<b>9,558</b>	<b>832</b>	<b>147</b>	<b>623</b>	<b>11,160</b>
<b>Annual Average Employment Over 10 Years – St. John’s campuses</b>					
Operations	4,009	144	33	138	4,323
Sponsored Research	530	38	7	25	599
Infrastructure/Equipment	157	10	4	20	190
Pensions	201	11	4	20	236
Students’ Expenditures	730	33	13	52	828
Visitors’ Expenditures	94	2	1	4	100
Value of Education	2675.9	146.4	55.4	265.5	3143.2
<b>Total</b>	<b>8,396</b>	<b>384</b>	<b>117</b>	<b>524</b>	<b>9,420</b>
<b>Annual Average Employment Over 10 Years – Marine Institute campuses</b>					
Operations	549	20	4	18	590
Sponsored Research	45	3	1	2	51
Infrastructure/Equipment	8	1	0	1	10
Pensions	16	1	0	2	19
Students’ Expenditures	54	2	1	4	61
Visitors’ Expenditure	6	0	0	0	6
Value of Education	186	10	4	18	219
<b>Total</b>	<b>863</b>	<b>37</b>	<b>10</b>	<b>45</b>	<b>954</b>
<b>Annual Average Employment Over 10 Years - Grenfell campuses</b>					
Operations	29	294	3	13	340
Sponsored Research	1	5	0	0	6
Infrastructure/Equipment	7	35	1	8	51
Pensions	27	2	1	3	32
Students’ Expenditures	15	58	3	8	84
Visitors’ Expenditures	1	7	0	1	8
Value of Education	217	12	4	22	255
<b>Total</b>	<b>297</b>	<b>411</b>	<b>12</b>	<b>54</b>	<b>775</b>
<b>Annual Average Employment Over 10 Years – Labrador Institute</b>					
Operations	0.8	0.3	8.2	0.4	9.7
Sponsored Research	0.0	0.0	0.0	0.0	0.0
Infrastructure/Equipment	0.0	0.0	0.0	0.0	0.0
Pensions	0.0	0.0	0.0	0.0	0.0
Students’ Expenditures	0.0	0.0	0.0	0.0	0.0
Visitors’ Expenditures	0.0	0.0	0.0	0.0	0.0
Value of Education	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>0.8</b>	<b>0.3</b>	<b>8.2</b>	<b>0.4</b>	<b>9.7</b>

Figure 78: Employment Impacts Associated with MUN by Campus – All Functions

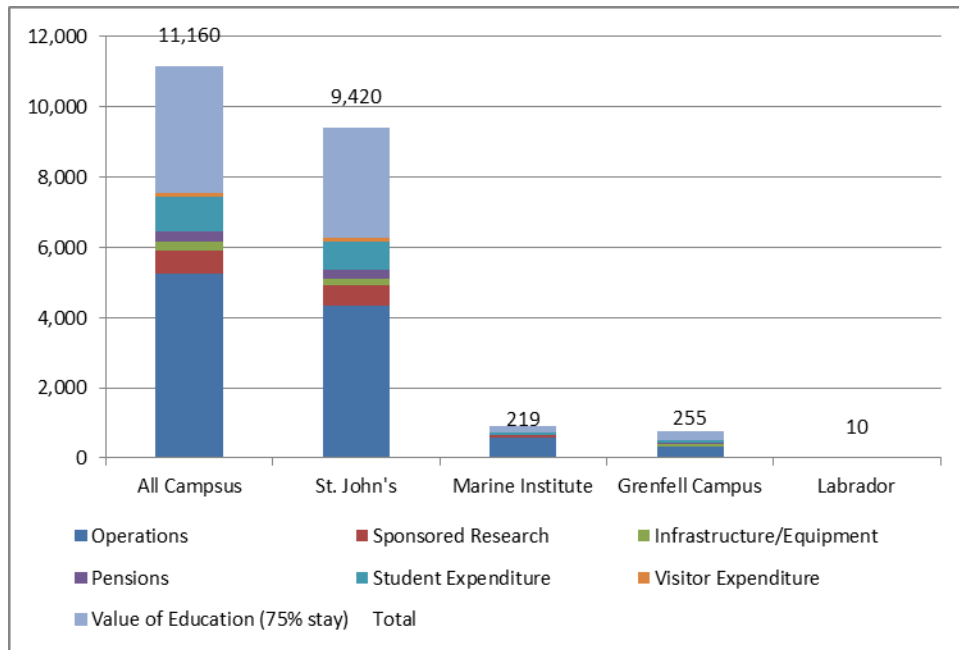


Figure 79: Share of Employment Impacts Associated with MUN by Campus – All Functions

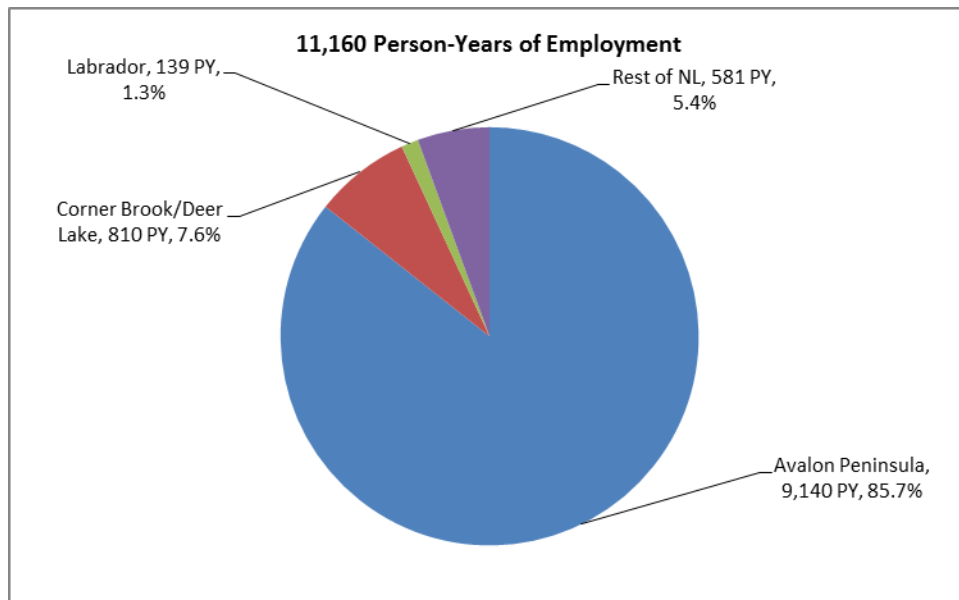


Figure 80: Employment Impacts for All Campuses Associated with MUN by Region – All Functions

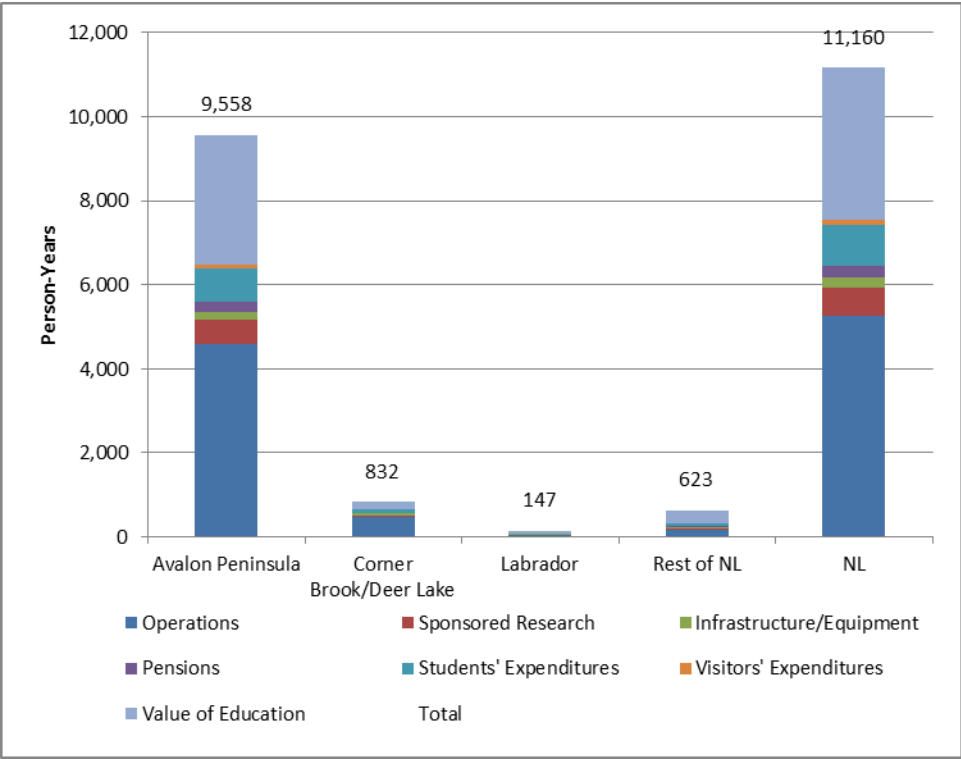


Figure 81: Share of Employment Impacts for All Campuses Associated with MUN by Region – All Functions

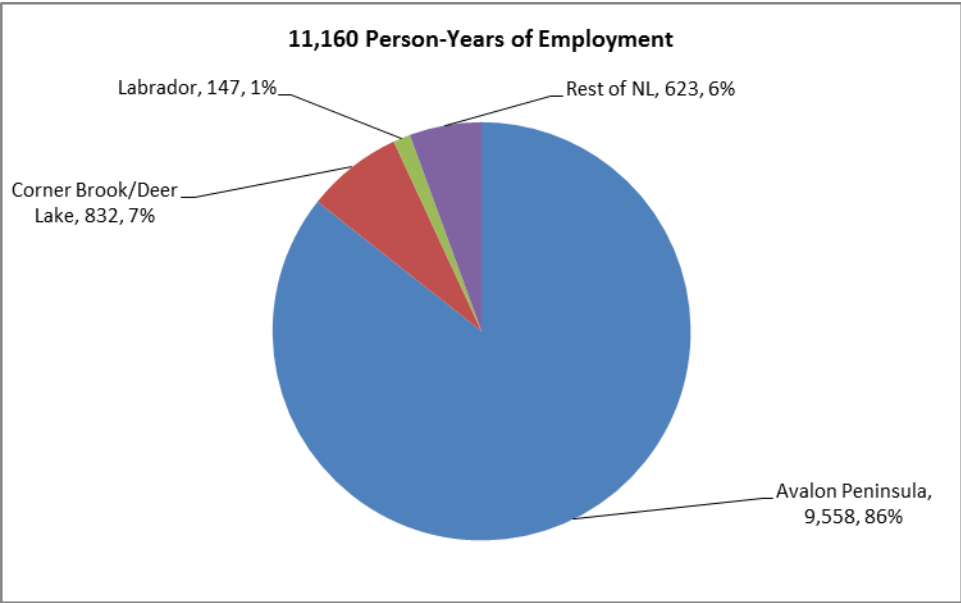




Figure 82: Share of Employment Impacts for All Campuses Associated with MUN by Function – All Functions

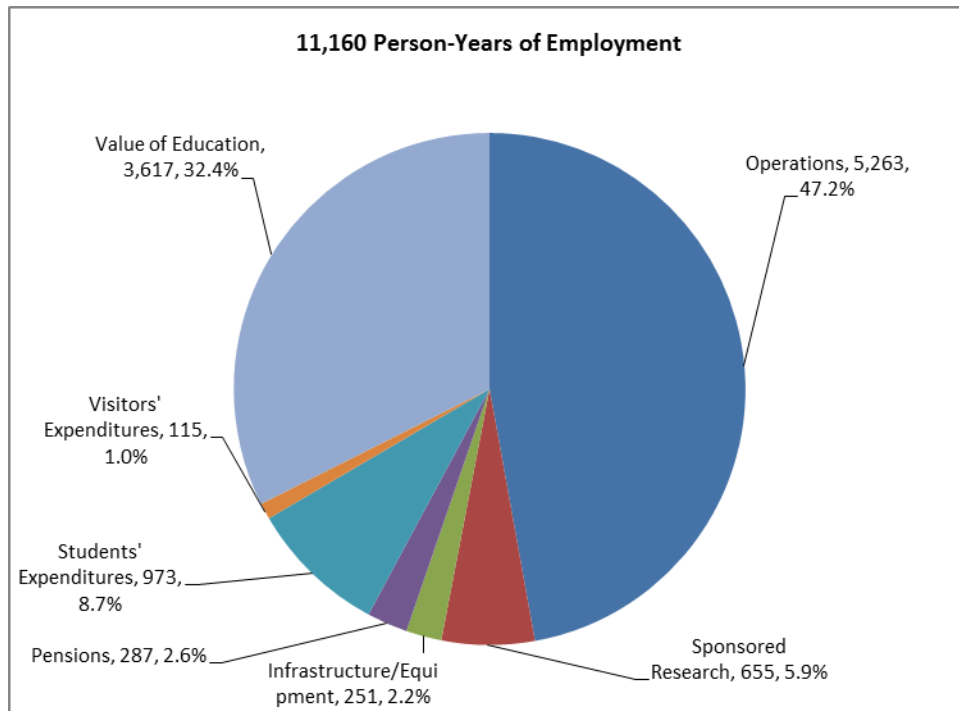


Figure 83: Employment Impacts for the St. John's campuses of MUN by Region – All Functions

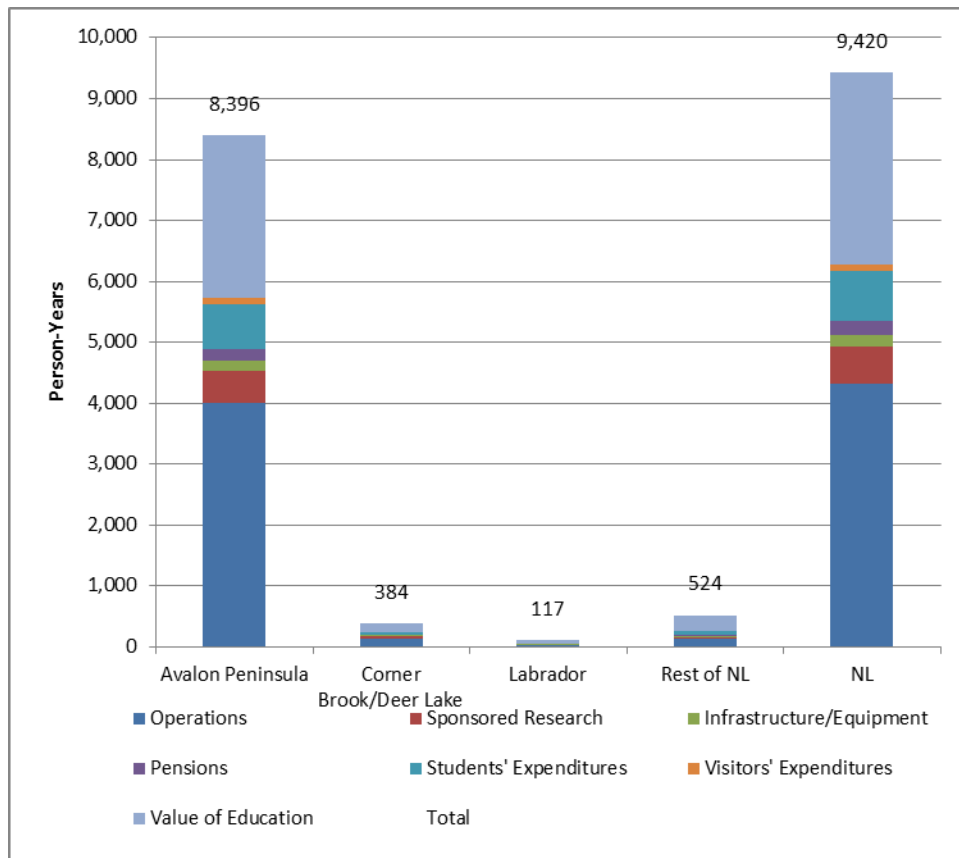


Figure 84: Share of Employment Impacts for the St. John's campuses of MUN by Region

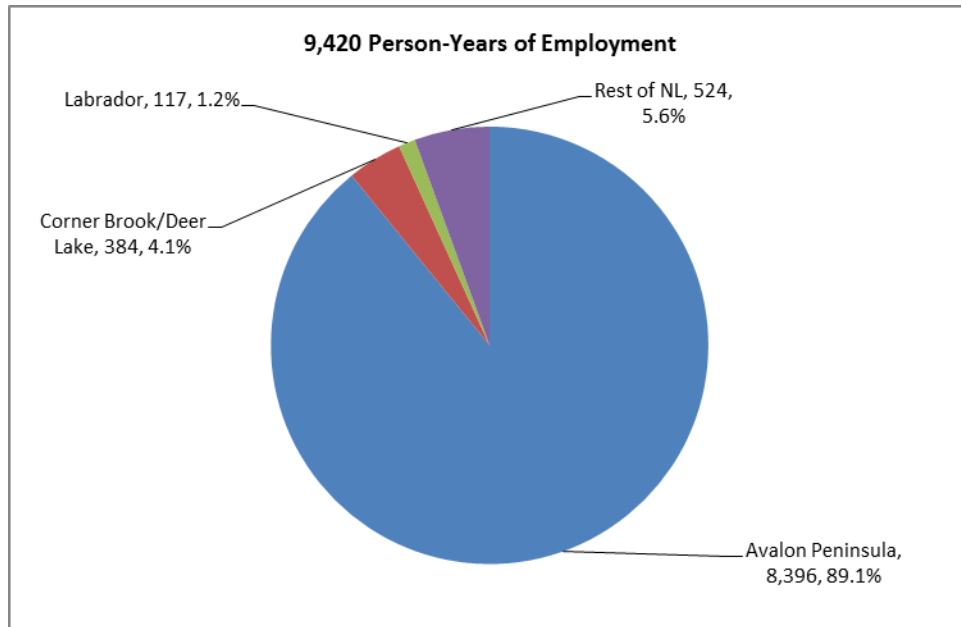


Figure 85: Share of Employment Impacts for the St. John's campuses of MUN by Function

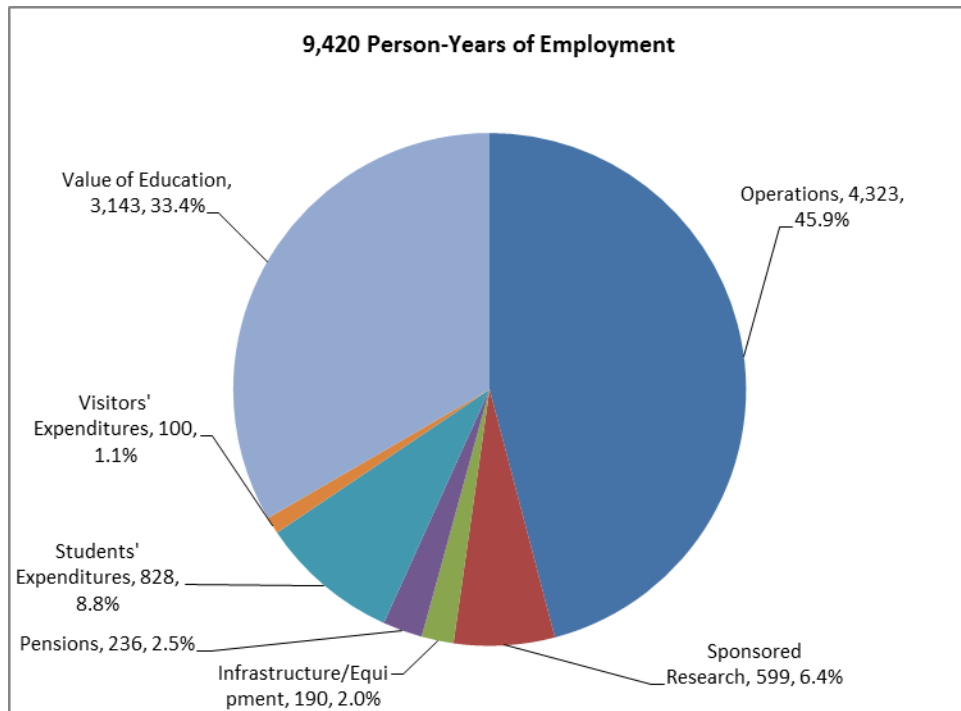


Figure 86: Employment Impacts for the Marine Institute of MUN by Region – All Functions

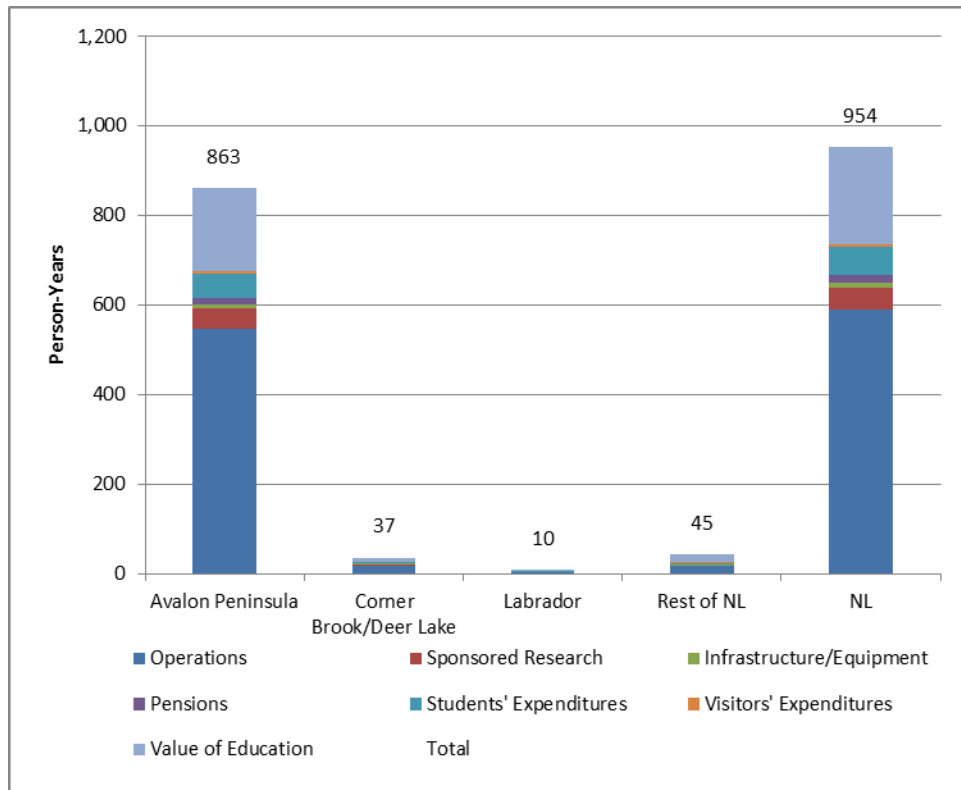


Figure 87: Share of Employment Impacts for the Marine Institute of MUN by Region – All Functions

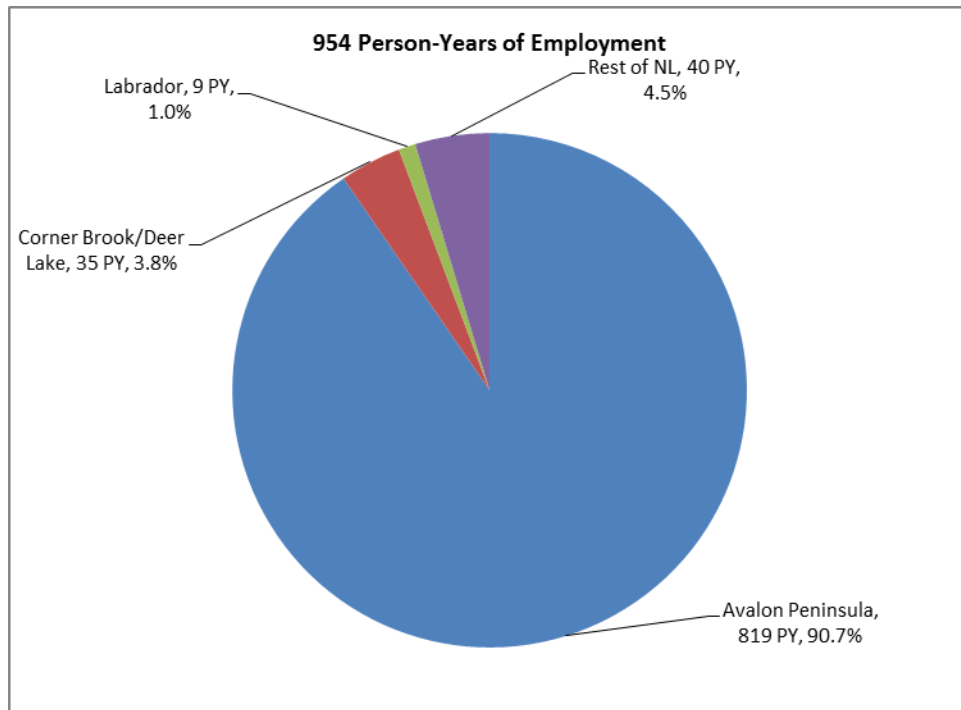


Figure 88: Share of Employment Impacts for the Marine Institute of MUN by Function

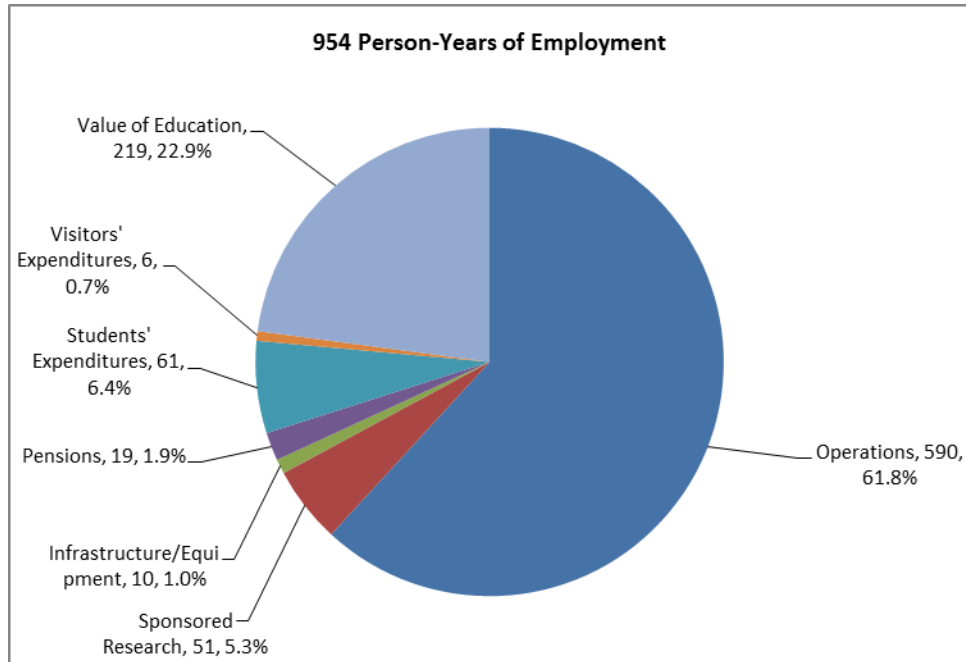


Figure 89: Employment Impacts for the Grenfell campus of MUN by Region – All Functions

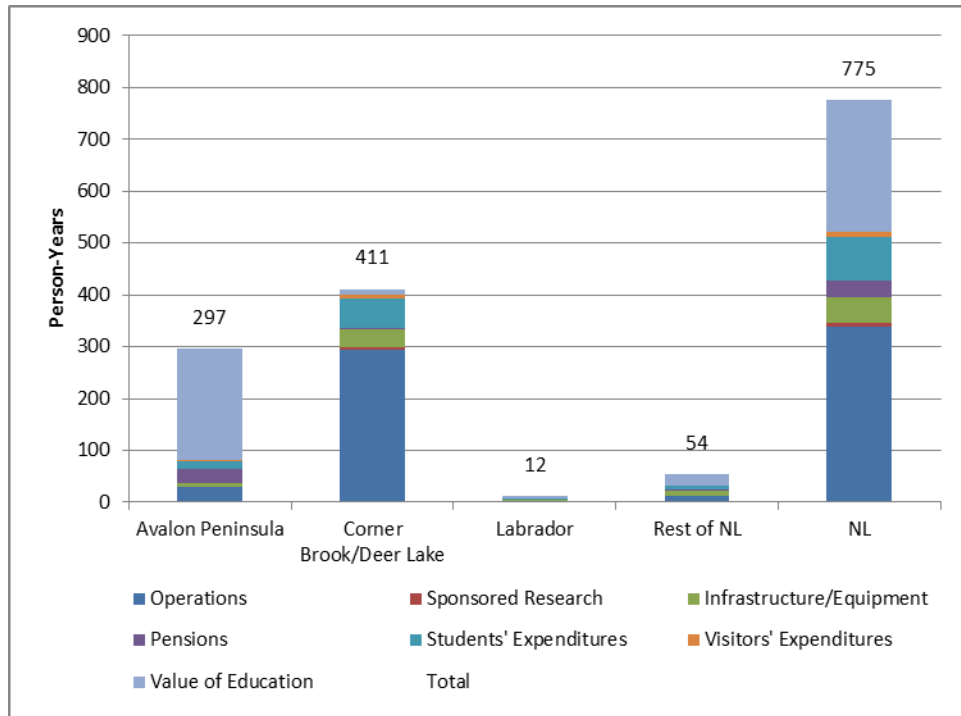


Figure 90: Share of Employment Impacts for the Grenfell campus of MUN by Region – All Functions

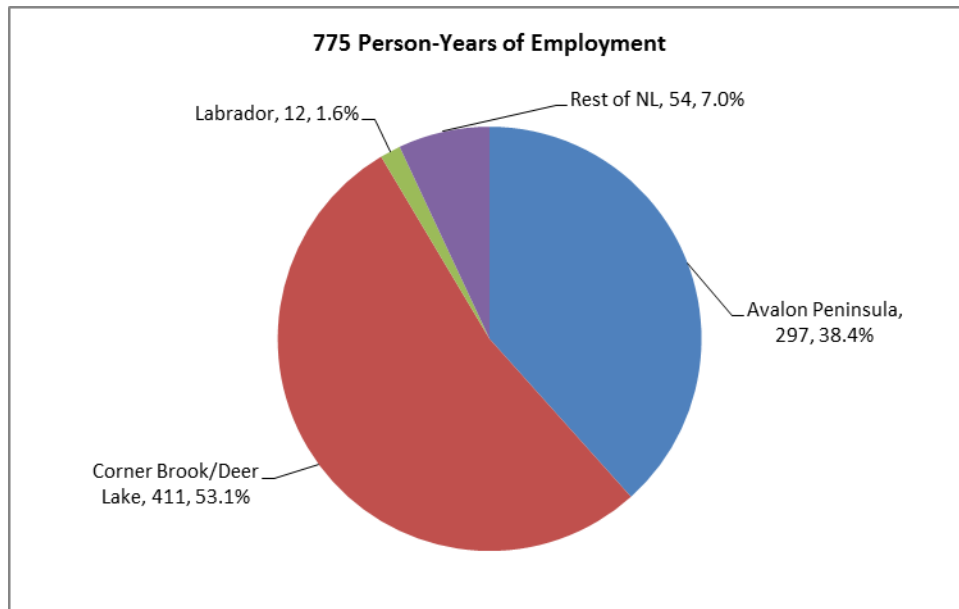
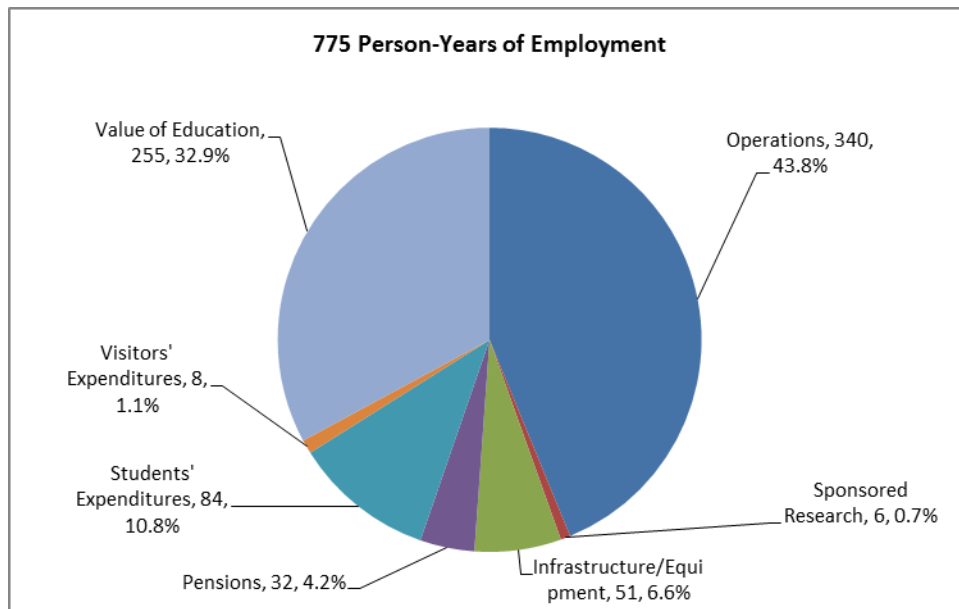


Figure 91: Share of Employment Impacts for the Grenfell campus of MUN by Function – All Functions



## 11.2 Summary Outputs – Salaries and Benefits

As shown in Table 85, Figure 92 and Figure 93, the average direct, indirect, and induced salaries and benefits that could be linked to MUN (all campuses) were \$566.2 million per year — 84.0% (\$475.1 million per year) at the St. John's campus; 9.3% (\$52.5 million per year) at the Marine Institute; 6.6% (\$37.6 million per year) was supported by the Grenfell campus, and 0.1% (\$0.6 million per year) was explained by MUN's presence in Labrador.

Figure 94 and Figure 95 show that 87.4% (\$495.0 million per year) of salaries and benefits linked to MUN occurred on the Avalon Peninsula; 7.2% (\$40.9 million per year) accrued to workers in the Corner Brook/Deer Lake region; 1.2% (\$6.6 million per year) to Labrador residents; and 4.2% (\$23.7 million per year) to workers throughout the rest of Newfoundland.

The shares of salaries and benefits by input category for all campuses are highlighted in Figure 96. Operating expenditures generated \$344.6 million per year in salaries and benefits, which represented 60.9% of the salaries and benefits that was traced to MUN. The salaries and benefits associated with having a higher educated workforce was \$125.7 million per year (22.2%), and this was followed by salaries and benefits created as a result of students' expenditures and expenditures on sponsored research — \$35.0 million per year (6.2%) and \$37.7 million per year (6.7%), respectively. Expenditures by pensioners account for \$10.0 million per year (1.8%) in salaries and benefits, while investment in infrastructure and equipment explained \$10.1 million per year (1.8%). Visitor expenditures were traced to 0.5%, or \$3.1 million per year.

As shown in Figure 97 and Figure 98, the average salaries and benefits that were linked to MUN were \$475.1 million per year, with 91.6% of the salaries and benefits (\$435.3 million per year) paid on the Avalon Peninsula; 3.1% of the salaries and benefits (\$14.9 million per year) accrued to the Corner Brook/Deer Lake region; 1.1% of the salaries and benefits (\$5.1 million per year) were paid in Labrador, and 4.2% of the salaries and benefits (\$19.7 million per year) were felt throughout the rest of Newfoundland.

The shares of salaries and benefits by input category for the St. John's campus are highlighted in Figure 99. Operations expenditures generated \$283.0 million per year in salaries and benefits, of which 59.6% were traced to the St. John's campus. The salaries and benefits associated with having a higher educated workforce were 23.0% (\$109.3 million per year) of salaries and benefits. This was followed by salaries and benefits that result from students' expenditures and expenditures associated with sponsored research — \$29.8 million per year (6.3%) and \$34.5 million per year (7.3%), respectively. Expenditures associated with pensions accounted for \$8.2 million per year (1.7%), while investment in infrastructure and equipment explained \$7.7 million in salaries and benefits per year (1.6%). Visitor expenditures were linked to 0.5% of the salaries and benefits or \$2.6 million per year.

As shown in Figure 100 and Figure 101, the average salaries and benefits linked to MUN at its Marine Institute campus were \$52.5 million per year. Almost 93.3% (\$49.0 million per year) of these salaries and benefits occurred on the Avalon Peninsula, 2.6% of the salaries and benefits (\$1.4 million) resulted in the Corner Brook/Deer Lake region, 0.7% of the salaries and benefits (\$0.4 million) were accounted for by Labrador, and 3.4% of the salaries and benefits (\$1.8 million) were associated with the rest of Newfoundland.

The shares of salaries and benefits by input category for the Marine Institute are highlighted in Figure 102. Operating expenditures generated \$38.7 million per year, which represented 73.7% of the salaries and benefits traced to the Marine Institute of MUN. The salaries and benefits resulting from having a higher educated workforce were \$7.6 million per year (14.5%) This was followed by salaries and

benefits that emanated from students' expenditures and sponsored research — \$2.2 million per year (4.2%) and \$2.9 million per year (5.5%), respectively. Expenditures associated with pensions accounted for \$0.6 million in the salaries and benefits per year (1.1%), while investment in infrastructure and equipment explained \$0.3 million of the salaries and benefits per year (0.6%). Visitors' expenditures were connected to 0.4% of the salaries and benefits or \$0.2 million per year.

As shown in Figure 103 and Figure 104, the average salaries and benefits linked to MUN at its Grenfell campus were \$37.6 million per year. Slightly more than 28% (\$10.6 million) of these salaries and benefits occurred on the Avalon Peninsula, 65.5% of the salaries and benefits (\$24.7 million) in the Corner Brook/Deer Lake region, 1.1% of the salaries and benefits (\$0.4 million) in Labrador, and 5.3% of the salaries and benefits (\$2.0 million) in the rest of Newfoundland.

The shares of salaries and benefits by input category for the Grenfell campus are highlighted in Figure 105. Operating expenditures generated \$22.1 million per year, which represented 58.8% of the salaries and benefits that were linked to the Grenfell campus of MUN. The salaries and benefits associated with having a higher educated workforce were associated with 23.7% (\$8.9 million per year), followed by salaries and benefits that emanated from students' expenditures and sponsored research — \$3.0 million per year (8.0%) and \$0.3 million per year (0.8%), respectively. Expenditures from pensions accounted for \$1.1 million of the salaries and benefits (2.9%), while investment in infrastructure and equipment explained \$2.0 million of the salaries and benefits (5.3%). Visitors' expenditures were traced to 0.5% of the salaries and benefits, or \$0.2 million per year.

**Table 85: Summary Output – Salaries and Benefits (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Salaries and Benefits Over 10 Years - All Campuses</b>					
Operations	\$308.60	\$26.80	\$2.40	\$6.80	\$344.60
Sponsored Research	\$34.40	\$1.90	\$0.30	\$1.10	\$37.70
Infrastructure/Equipment	\$6.90	\$1.80	\$0.20	\$1.20	\$10.10
Pensions	\$8.40	\$0.50	\$0.20	\$0.90	\$10.00
Students' Expenditures	\$28.40	\$3.20	\$0.80	\$2.60	\$35.00
Visitors' Expenditures	\$2.60	\$0.30	\$0.00	\$0.20	\$3.10
Value of Education	<b>\$105.69</b>	<b>\$6.37</b>	<b>\$2.69</b>	<b>\$10.95</b>	\$125.71
<b>Total</b>	<b>\$494.99</b>	<b>\$40.87</b>	<b>\$6.59</b>	<b>\$23.75</b>	<b>\$566.21</b>
<b>Annual Average Salaries and Benefits Over 10 Years – St. John's campuses</b>					
Operations	\$270.30	\$5.70	\$1.50	\$5.50	\$283.00
Sponsored Research	\$31.70	\$1.50	\$0.30	\$1.00	\$34.50
Infrastructure/Equipment	\$6.30	\$0.40	\$0.20	\$0.80	\$7.70
Pensions	\$6.90	\$0.40	\$0.20	\$0.70	\$8.20
Students' Expenditures	\$25.80	\$1.30	\$0.60	\$2.10	\$29.80
Visitors' Expenditures	\$2.40	\$0.10	\$0.00	\$0.10	\$2.60
Value of Education	<b>\$91.86</b>	<b>\$5.54</b>	<b>\$2.34</b>	<b>\$9.52</b>	\$109.25
<b>Total</b>	<b>\$435.26</b>	<b>\$14.94</b>	<b>\$5.14</b>	<b>\$19.72</b>	<b>\$475.05</b>
<b>Annual Average Salaries and Benefits Over 10 Years – Marine Institute campuses</b>					

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Operations	\$37.00	\$0.80	\$0.20	\$0.70	\$38.70
Sponsored Research	\$2.70	\$0.10	\$0.00	\$0.10	\$2.90
Infrastructure/Equipment	\$0.30	\$0.00	\$0.00	\$0.00	\$0.30
Pensions	\$0.50	\$0.00	\$0.00	\$0.10	\$0.60
Students' Expenditures	\$1.90	\$0.10	\$0.00	\$0.20	\$2.20
Visitors' Expenditures	\$0.20	\$0.00	\$0.00	\$0.00	\$0.20
Value of Education	<b>\$6.39</b>	<b>\$0.39</b>	<b>\$0.16</b>	<b>\$0.66</b>	\$7.60
<b>Total</b>	<b>\$48.99</b>	<b>\$1.39</b>	<b>\$0.36</b>	<b>\$1.76</b>	<b>\$52.50</b>
<b>Annual Average Salaries and Benefits Over 10 Years - Grenfell campuses</b>					
Operations	\$1.20	\$20.30	\$0.10	\$0.50	\$22.10
Sponsored Research	\$0.00	\$0.30	\$0.00	\$0.00	\$0.30
Infrastructure/Equipment	\$0.30	\$1.40	\$0.00	\$0.30	\$2.00
Pensions	\$0.90	\$0.10	\$0.00	\$0.10	\$1.10
Students' Expenditures	\$0.70	\$1.90	\$0.10	\$0.30	\$3.00
Visitors' Expenditures	\$0.00	\$0.20	\$0.00	\$0.00	\$0.20
Value of Education	<b>\$7.45</b>	<b>\$0.45</b>	<b>\$0.19</b>	<b>\$0.77</b>	\$8.86
<b>Total</b>	<b>\$10.55</b>	<b>\$24.65</b>	<b>\$0.39</b>	<b>\$1.97</b>	<b>\$37.56</b>
<b>Annual Average Salaries and Benefits Over 10 Years – Labrador Institute</b>					
Operations	\$0.0	\$0.0	\$0.6	\$0.0	\$0.6
Sponsored Research	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Infrastructure/Equipment	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Pensions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Students' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Visitors' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Value of Education	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.6</b>	<b>\$0.0</b>	<b>\$0.6</b>



Figure 92: Salaries and Benefits Impacts for All Campuses of MUN by Campus – All Functions

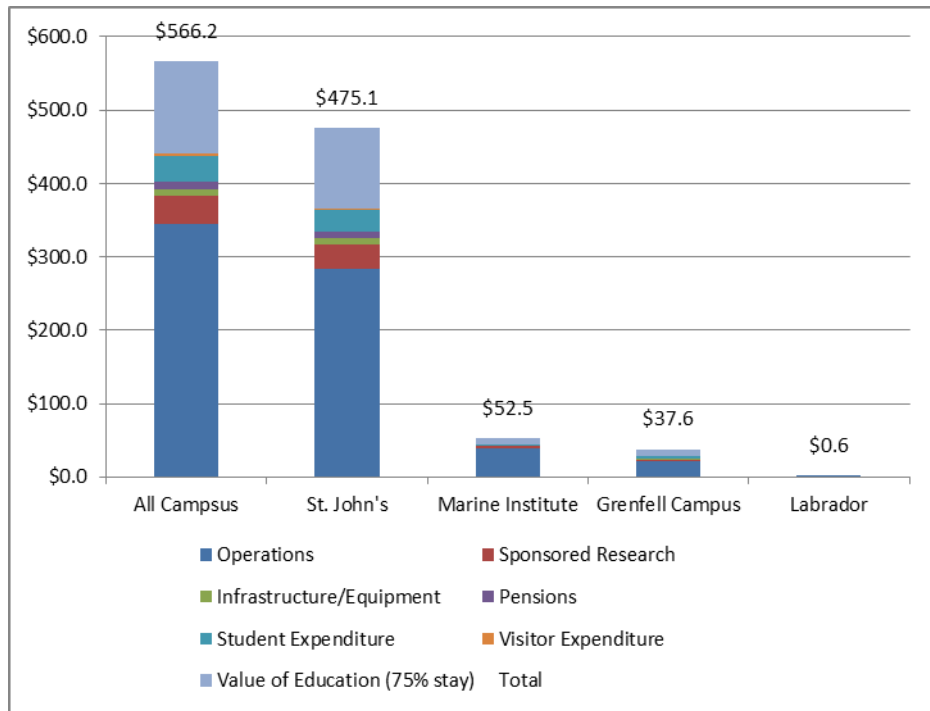


Figure 93: Share of Salaries and Benefits Impacts for All Campuses of MUN by Campus – All Functions

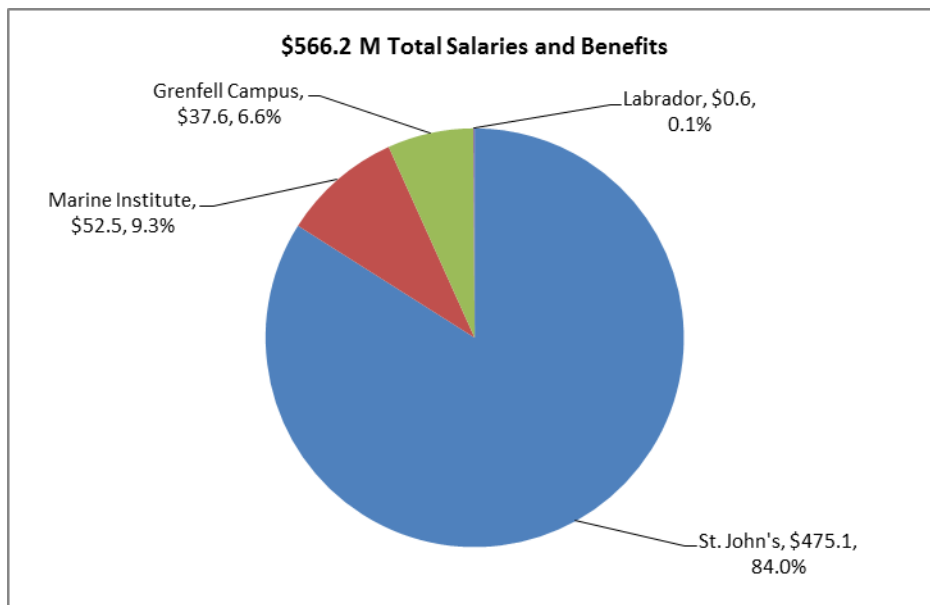


Figure 94: Salaries and Benefits Impacts for All Campuses of MUN by Region – All Functions

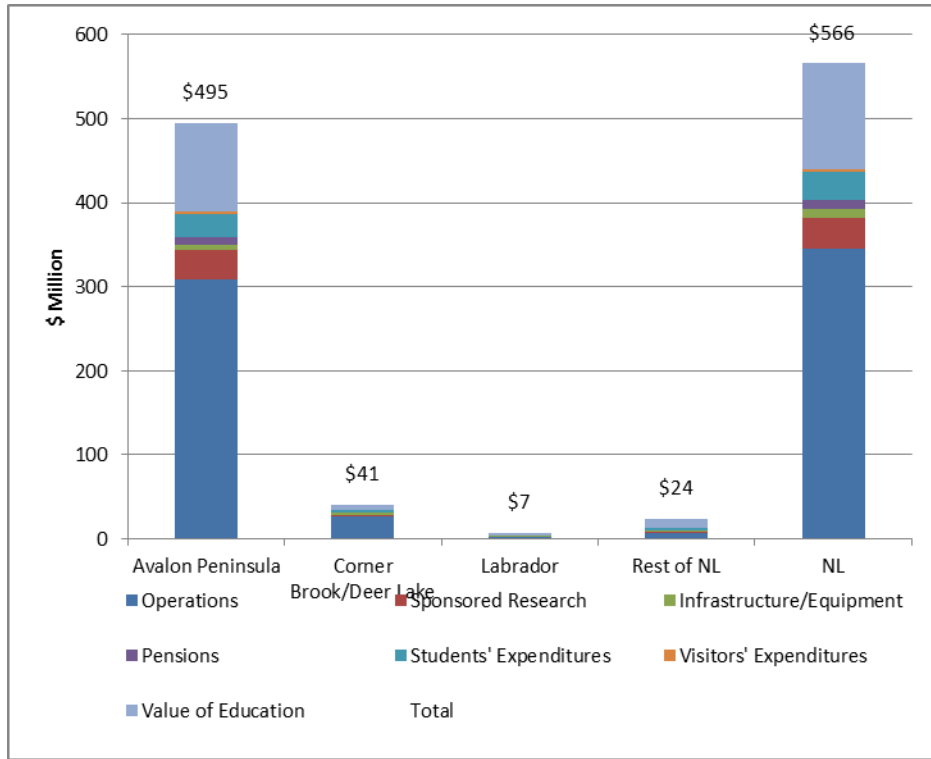


Figure 95: Share of Salaries and Benefits Impacts for All Campuses of MUN by Region – All Functions

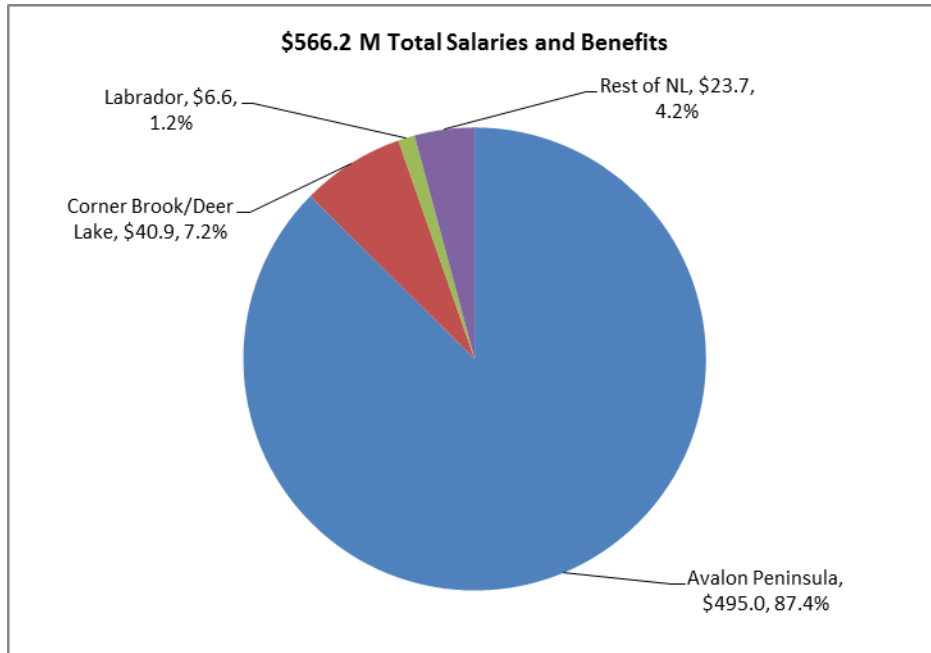


Figure 96: Share of Salaries and Benefits Impacts for All Campuses of MUN by Function

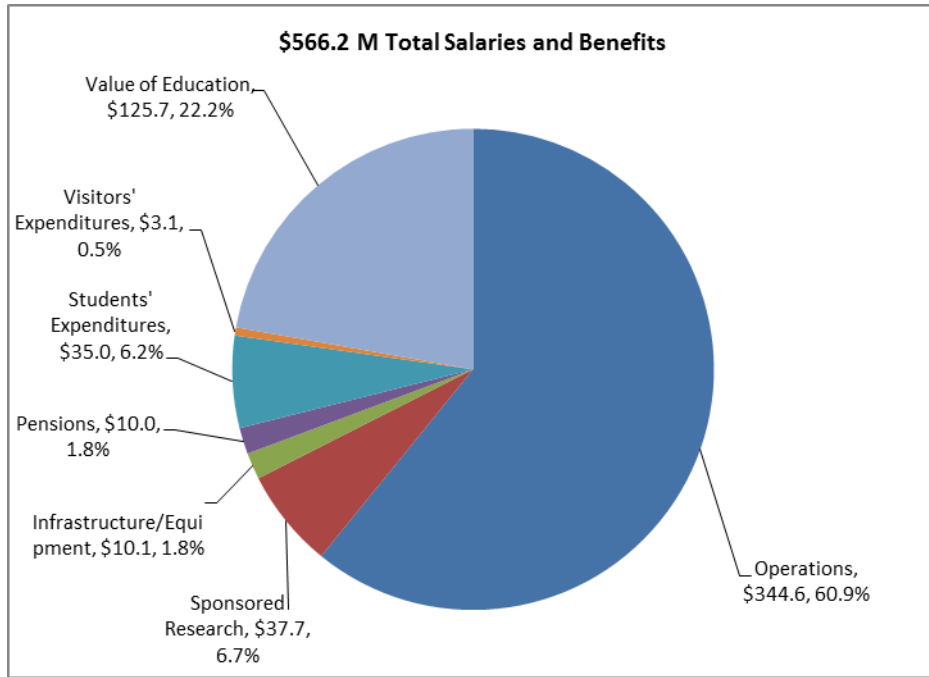


Figure 97: Salaries and Benefits Impacts for the St. John's Campus of MUN by Region – All Functions

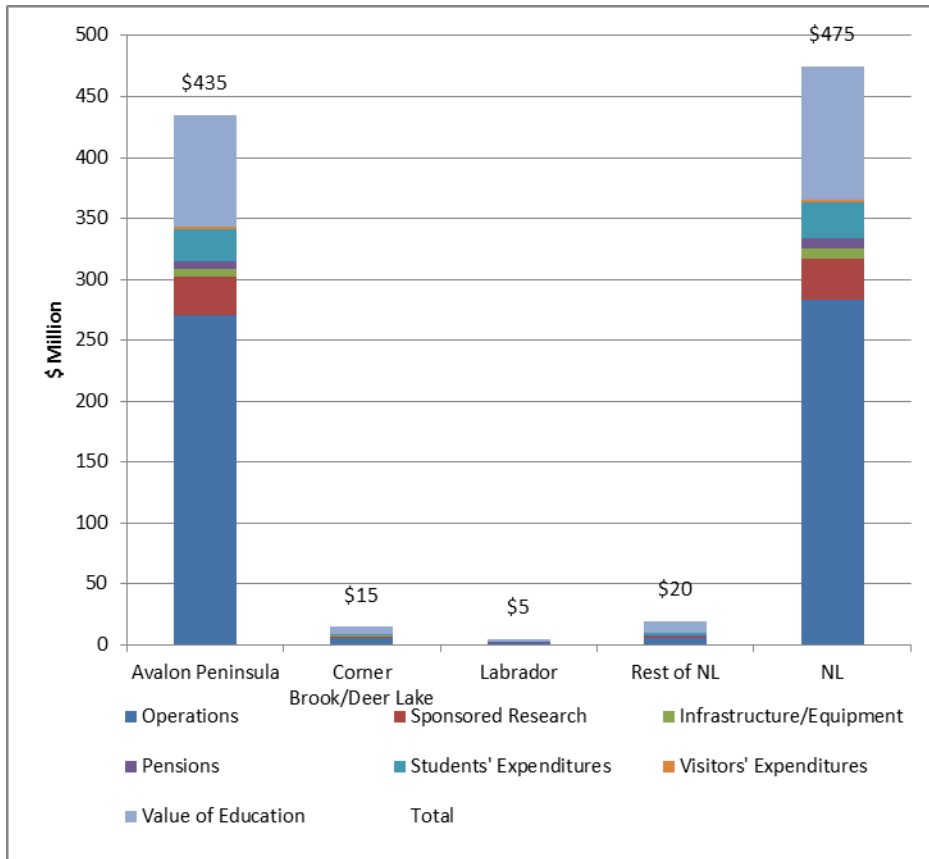


Figure 98: Share of Salaries and Benefits Impacts for the St. John's Campus of MUN by Region – All Functions

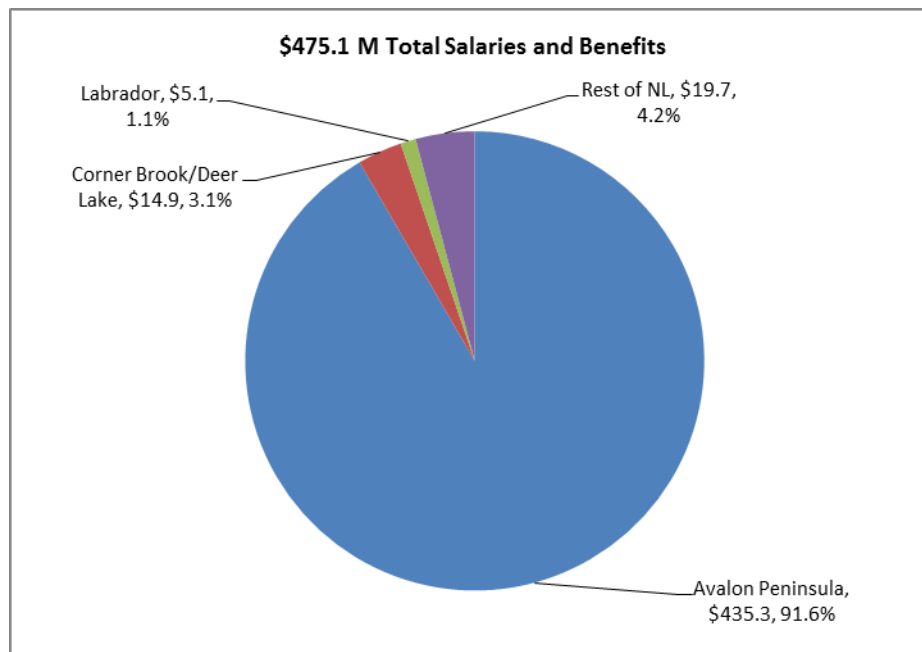


Figure 99: Share of Salaries and Benefits Impacts for the St. John's Campus of MUN by Function

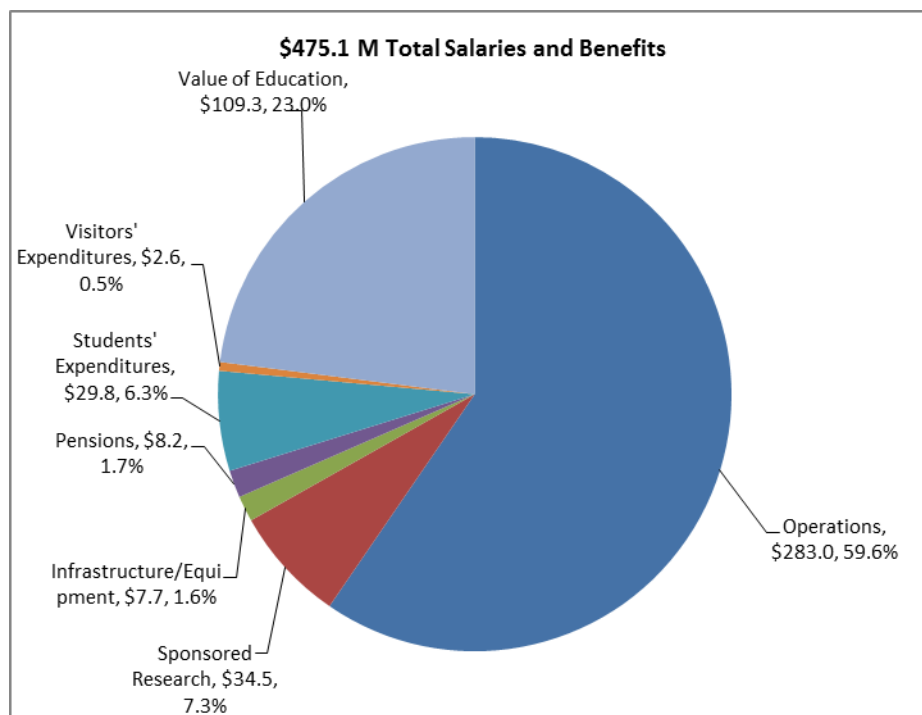


Figure 100: Salaries and Benefits Impacts for the Marine Institute of MUN by Region – All Functions

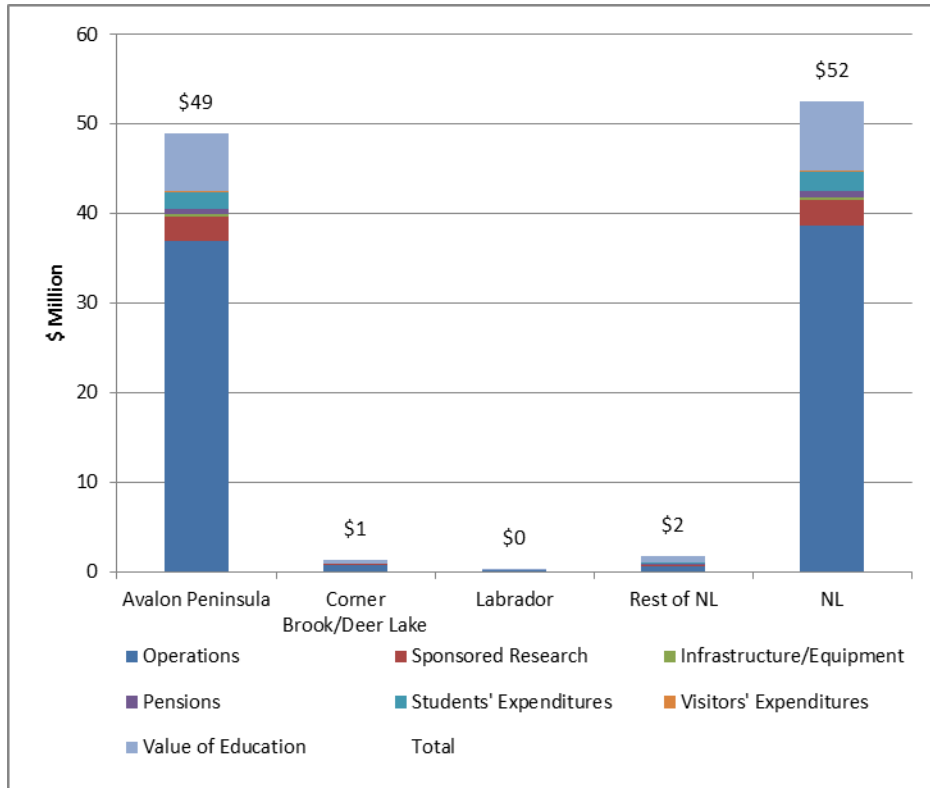


Figure 101: Share of Salaries and Benefits Impacts for the Marine Institute of MUN by Region – All Functions

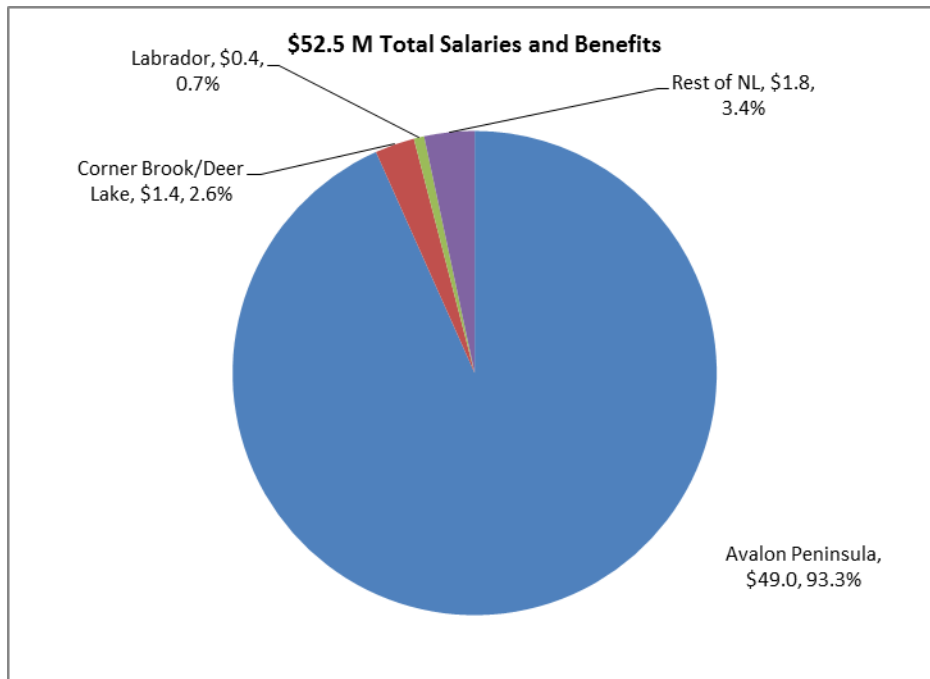


Figure 102: Share of Salaries and Benefits Impacts for the Marine Institute of MUN by Function – All Functions

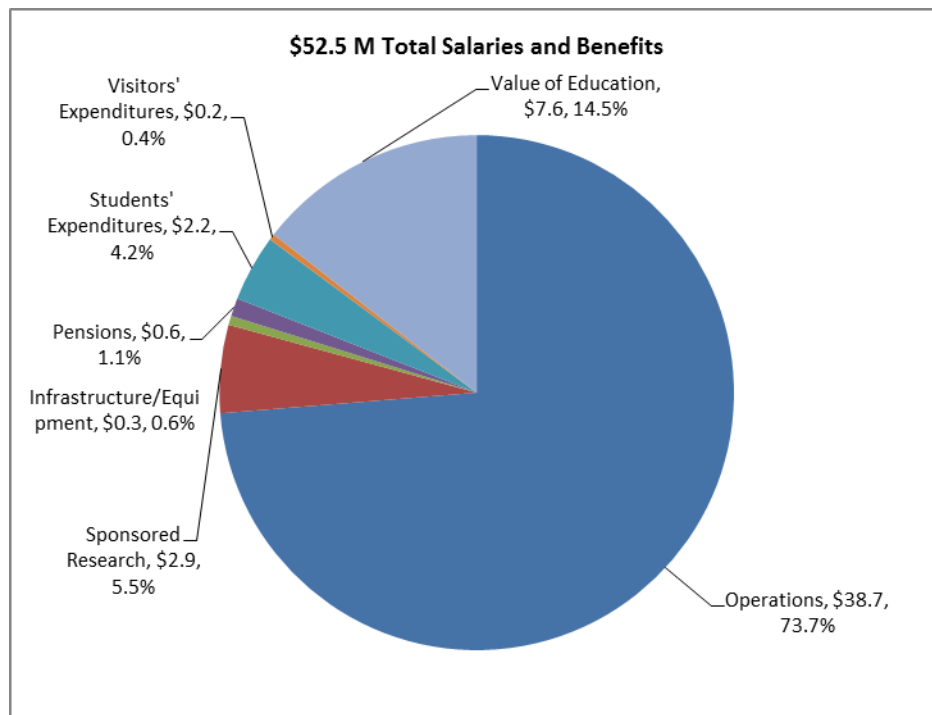


Figure 103: Salaries and Benefits Impacts for the Grenfell campus of MUN by Region – All Functions

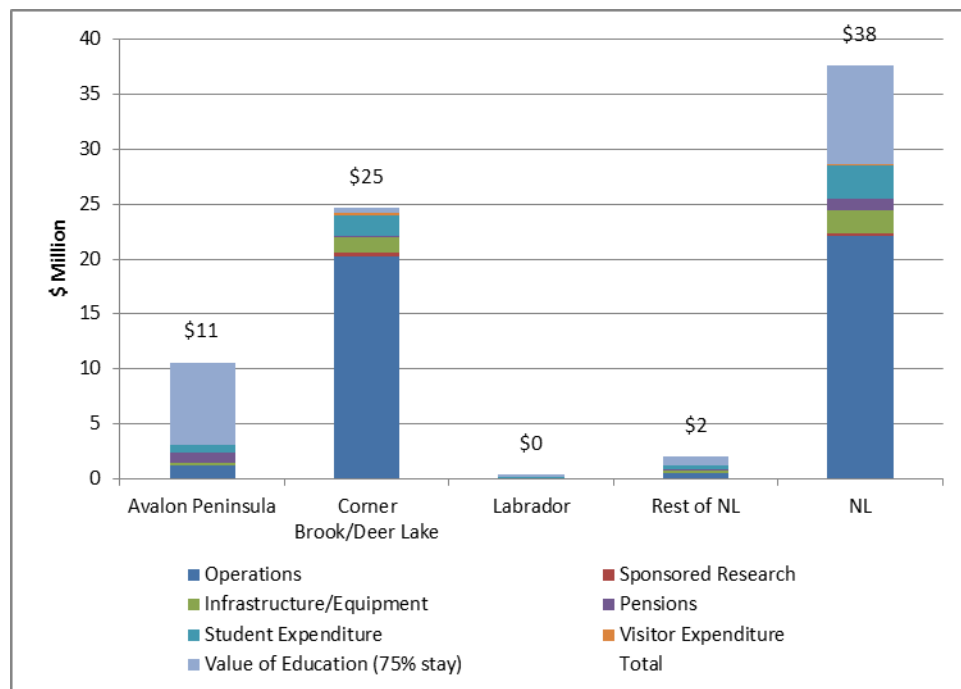


Figure 104: Share of Salaries and Benefits Impacts for the Grenfell campus of MUN by Region – All Functions

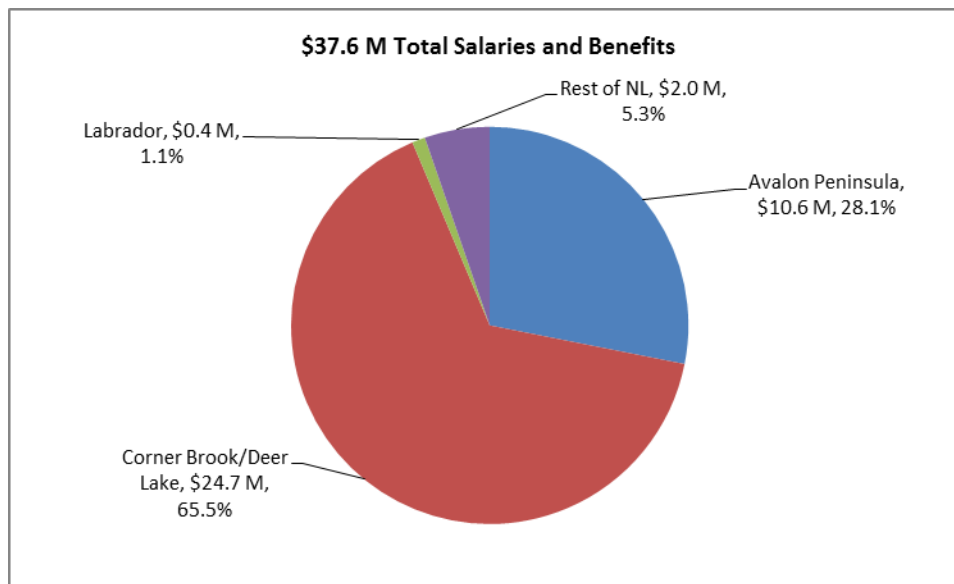
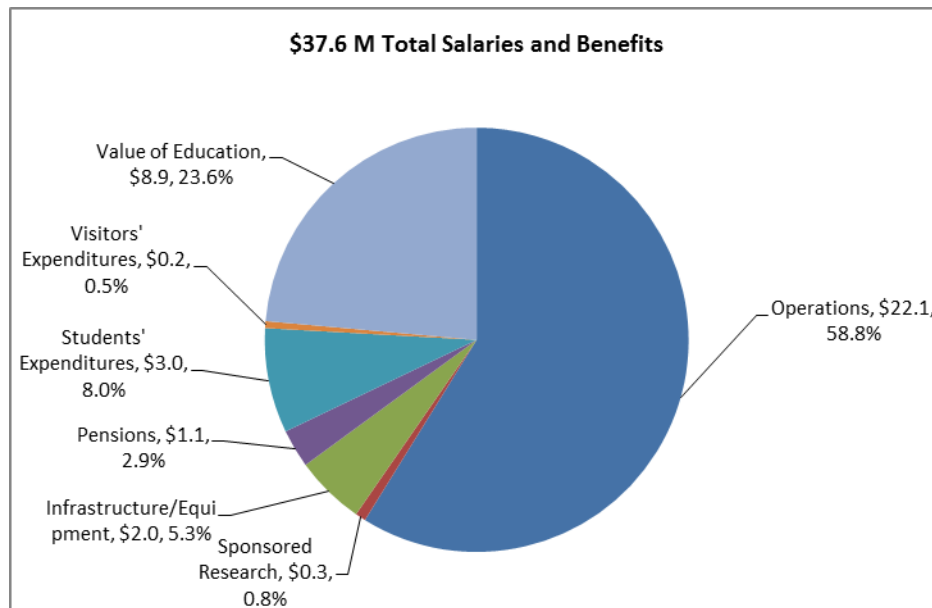


Figure 105: Share of Employment Impacts for the Grenfell campus of MUN by Function



### 11.3 Summary Outputs – GDP

As shown in Table 86, Figure 106 and Figure 107, average level of economic activity, as reflected in GDP, that can be linked to MUN (all campuses) was \$1033.2 million per year — 84.5% (\$873.0 million per year) at the St. John's campus; 8.4% (\$87.2 million per year) at the Marine Institute; 7.0% (\$72.1 million per year) at the Grenfell campus; and 0.1% (\$0.8 million per year) in Labrador.

Figure 108 and Figure 109 show that 87.8% (\$907.4 million per year) of this GDP occurred on the Avalon Peninsula, while 6.6% (\$67.2 million per year) occurred in the Corner Brook/Deer Lake region; 1.3% of

the GDP (\$13.2 million per year) was accounted for by Labrador; and 4.3% (\$44.9 million per year) was attributable to the rest of Newfoundland.

The shares of GDP by input for all campuses are highlighted in Figure 110. Operating expenditures generated \$461.3 million per year, which represents 44.6% of the GDP that was traced to MUN. The GDP associated with having a higher educated workforce was associated with 32.3% (\$366.1 million), was followed by the GDP that emanated from students' expenditures and sponsored research — \$97.9 million (9.5%) and \$53.4 million (5.2%), respectively. Pensions accounted for \$29.1 million of the GDP (2.8%), while investment in infrastructure and equipment generated \$19.4 million of the GDP (1.9%). Visitors' expenditures amounted to 0.6% of the GDO or \$6.0 million per year.

As shown in Figure 111 and Figure 112, Memorial University's average GDP linked to the St. John's campus was \$873 million per year. Slightly more than 91.3% of the GDP (\$796.6 million per year) occurred on the Avalon Peninsula; 3.2% of the GDP (\$28.2 million per year) was in the Corner Brook/Deer Lake region with 1.2% of the GDP (\$10.4 million per year) was accounted for by Labrador and 4.3% of the GDP (\$37.8 million per year) was attributable to the rest of Newfoundland.

The shares of GDP by input category for the St. John's campus are highlighted in Figure 113. Operating expenditures generated \$379.0 million per year, which represented 43.4% of the GDP that was connected to the St. John's campus of MUN. The GDP associated with having a higher educated workforce was 36.4% (\$318.2 million per year) and this was followed by the GDP from students' expenditures and sponsored research — \$83.3 million per year (9.5%) and \$48.8 million per year (5.6%), respectively. Pensions accounted for \$23.9 million of the GDP (2.7%), while investment in infrastructure and equipment explained \$14.6 million of the GDP per year (1.7%). Visitors' expenditures were traced to 0.6% of the GDP or \$5.2 million per year.

As shown in Figure 114 and Figure 115, average GDP associated with MUN at its Marine Institute was \$87.2 million per year. 92.0% (\$80.3 million per year) of this GDP occurred on the Avalon Peninsula, 3.1% of the GDP (\$2.7 million per year) was accounted for by the Corner Brook/Deer Lake region; 1.1% of the GDP (\$0.9 million per year) originated in Labrador; and 3.8% of the GDP (\$3.3 million per year) was attributable to the rest of Newfoundland.

The shares of GDP by input category for the Marine Institute are highlighted in Figure 116. Operating expenditures generated \$51.7 million in GDP per year, which represented 59.3% of the GDP that was linked to the Marine Institute of MUN. The GDP associated with having a higher educated workforce was 25.4% (\$22.1 million per year), followed by the GDP from students' expenditures and sponsored research — \$6.2 million (7.1%) and \$4.2 million (4.8%), respectively. Pensions accounted for \$1.9 million of the GDP (2.2%), investment in infrastructure and equipment for \$0.8 million of the GDP (0.9%) and visitors' expenditures was responsible for 0.3% of the GDP or \$0.3 million per year.

As shown in Figure 117 and Figure 118, MUN's average GDP that was linked to MUN at its Grenfell campus was \$72 million per year: 42.5% of the GDP (\$30.7 million per year) occurred on the Avalon Peninsula; 50.6% of the GDP (\$36.6 million per year) originated in the Corner Brook/Deer Lake region;



1.5% of the GDP (\$1.1 million per year) was attributable to Labrador; and 5.4% of the GDP (\$3.9 million per year) was linked to the rest of Newfoundland.

The shares of GDP by input for the Grenfell campus are highlighted in Figure 119. Operating expenditures generated \$29.8 million GDP per year, which represented 41.2% of the GDP that was traced to the Grenfell campus of MUN. The GDP associated with having a higher educated workforce was 36.0% (\$26.0 million per year), followed by GDP from students' expenditures and sponsored research — \$8.5 million (11.8%) and \$0.5 million (0.7%), respectively. Pensions accounted for \$3.2 of the GDP (4.4%), investment in infrastructure and equipment explained \$4.0 million of the GDP (5.5%), and visitors' expenditures was the source of 0.4% of the GDP, \$0.3 million per year.

**Table 86: Summary Output – GDP (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average GDP Over 10 Years - All Campuses</b>					
Operations	\$406.10	\$38.10	\$4.40	\$12.70	\$461.30
Sponsored Research	\$47.20	\$3.40	\$0.70	\$2.10	\$53.40
Infrastructure/Equipment	\$13.20	\$3.60	\$0.40	\$2.20	\$19.40
Pensions	\$26.00	\$1.00	\$0.40	\$1.70	\$29.10
Students' Expenditures	\$82.50	\$8.90	\$1.70	\$4.80	\$97.90
Visitors' Expenditures	\$5.10	\$0.50	\$0.10	\$0.30	\$6.00
Value of Education	<b>\$327.34</b>	<b>\$12.18</b>	<b>\$5.48</b>	<b>\$21.07</b>	\$366.07
<b>Total</b>	<b>\$907.44</b>	<b>\$67.68</b>	<b>\$13.18</b>	<b>\$44.87</b>	<b>\$1,033.17</b>
<b>Annual Average GDP Over 10 Years – St. John's campuses</b>					
Operations	\$355.00	\$10.60	\$3.00	\$10.40	\$379.00
Sponsored Research	\$43.50	\$2.80	\$0.60	\$1.90	\$48.80
Infrastructure/Equipment	\$12.00	\$0.80	\$0.30	\$1.50	\$14.60
Pensions	\$21.40	\$0.80	\$0.30	\$1.40	\$23.90
Students' Expenditures	\$75.50	\$2.50	\$1.30	\$4.00	\$83.30
Visitors' Expenditures	\$4.70	\$0.10	\$0.10	\$0.30	\$5.20
Value of Education	<b>\$284.50</b>	<b>\$10.59</b>	<b>\$4.76</b>	<b>\$18.31</b>	\$318.16
<b>Total</b>	<b>\$796.60</b>	<b>\$28.19</b>	<b>\$10.36</b>	<b>\$37.81</b>	<b>\$872.96</b>
<b>Annual Average GDP Over 10 Years – Marine Institute campuses</b>					
Operations	\$48.60	\$1.40	\$0.40	\$1.30	\$51.70
Sponsored Research	\$3.70	\$0.20	\$0.10	\$0.20	\$4.20
Infrastructure/Equipment	\$0.60	\$0.10	\$0.00	\$0.10	\$0.80
Pensions	\$1.70	\$0.10	\$0.00	\$0.10	\$1.90
Students' Expenditures	\$5.60	\$0.20	\$0.10	\$0.30	\$6.20
Visitors' Expenditures	\$0.30	\$0.00	\$0.00	\$0.00	\$0.30
Value of Education	<b>\$19.78</b>	<b>\$0.74</b>	<b>\$0.33</b>	<b>\$1.27</b>	\$22.12
<b>Total</b>	<b>\$80.28</b>	<b>\$2.74</b>	<b>\$0.93</b>	<b>\$3.27</b>	<b>\$87.22</b>
<b>Annual Average GDP Over 10 Years - Grenfell campuses</b>					
Operations	\$2.40	\$26.10	\$0.30	\$1.00	\$29.80
Sponsored Research	\$0.10	\$0.40	\$0.00	\$0.00	\$0.50

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Infrastructure/Equipment	\$0.60	\$2.70	\$0.10	\$0.60	\$4.00
Pensions	\$2.90	\$0.10	\$0.00	\$0.20	\$3.20
Students' Expenditures	\$1.40	\$6.20	\$0.30	\$0.60	\$8.50
Visitors' Expenditures	\$0.00	\$0.30	\$0.00	\$0.00	\$0.30
Value of Education	<b>\$23.07</b>	<b>\$0.86</b>	<b>\$0.39</b>	<b>\$1.48</b>	\$25.80
<b>Total</b>	<b>\$30.47</b>	<b>\$36.66</b>	<b>\$1.09</b>	<b>\$3.88</b>	<b>\$72.10</b>
<b>Annual Average GDP Over 10 Years – Labrador Institute</b>					
Operations	\$0.1	\$0.0	\$0.7	\$0.0	\$0.8
Sponsored Research	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Infrastructure/Equipment	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Pensions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Students' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Visitors' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Value of Education	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	\$0.0
<b>Total</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.7</b>	<b>\$0.0</b>	<b>\$0.8</b>

Figure 106: GDP Impacts for All Campuses of MUN by Campus – All Functions

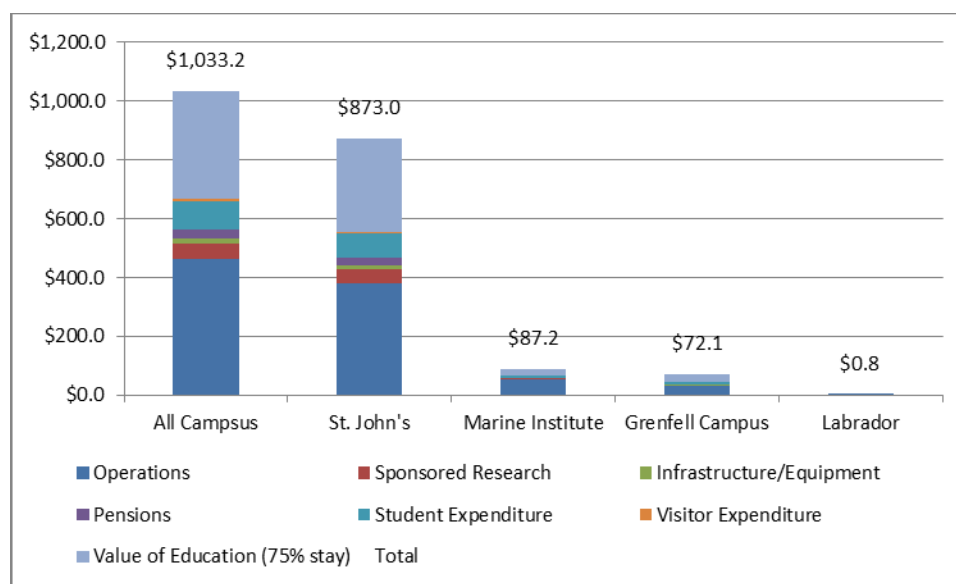


Figure 107: Share of GDP Impacts for All Campuses of MUN by Campus – All Functions

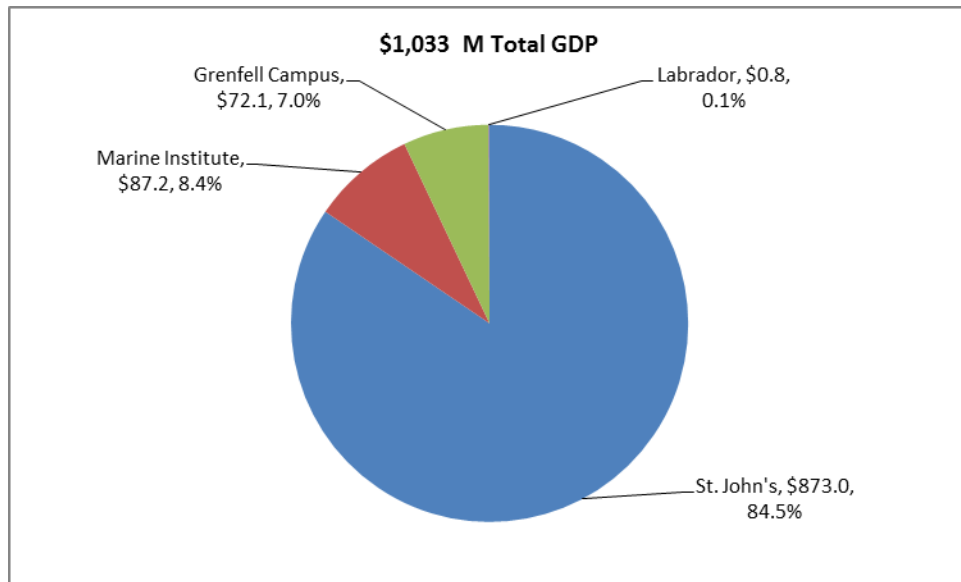


Figure 108: GDP Impacts for All Campuses of MUN by Region – All Functions

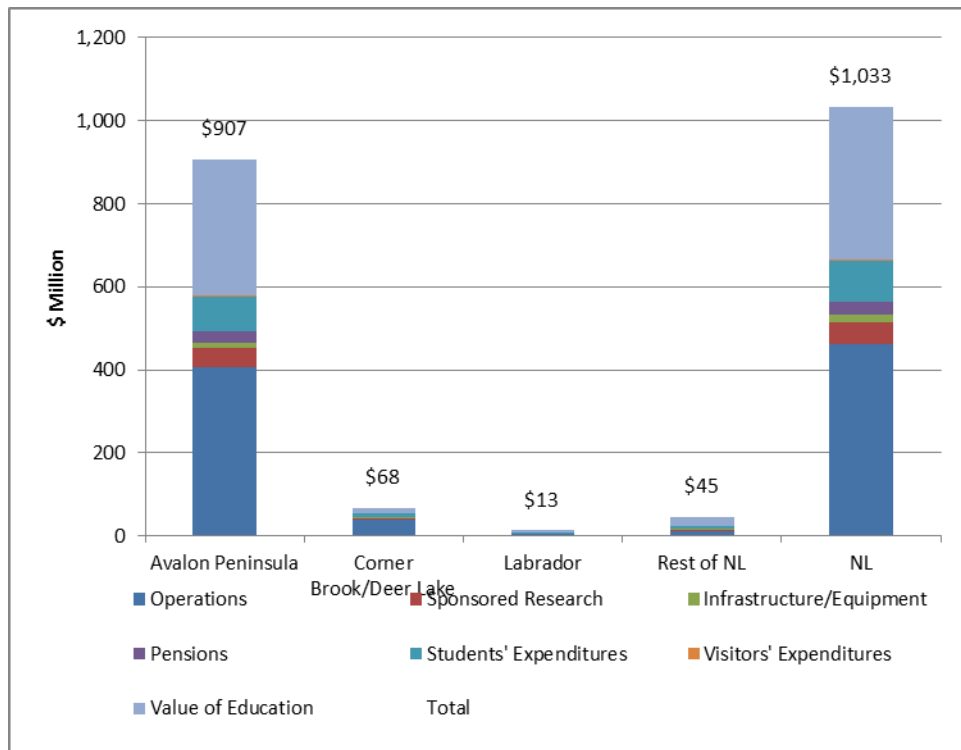


Figure 109: Share of GDP Impacts for All Campuses of MUN by Region – All Functions

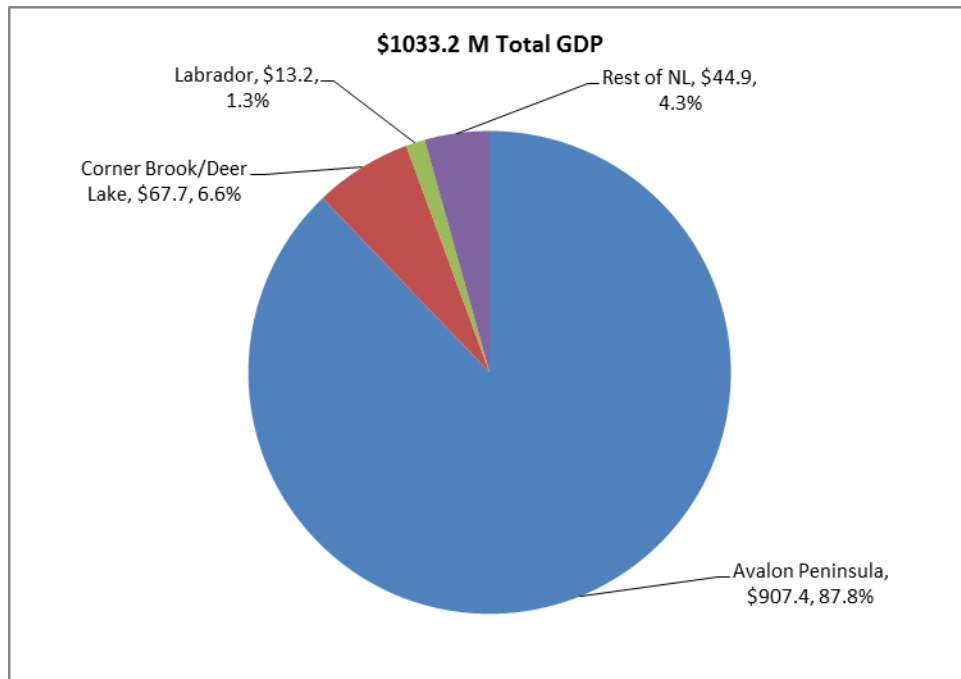


Figure 110: Share of GDP Impacts for All Campuses of MUN by Function

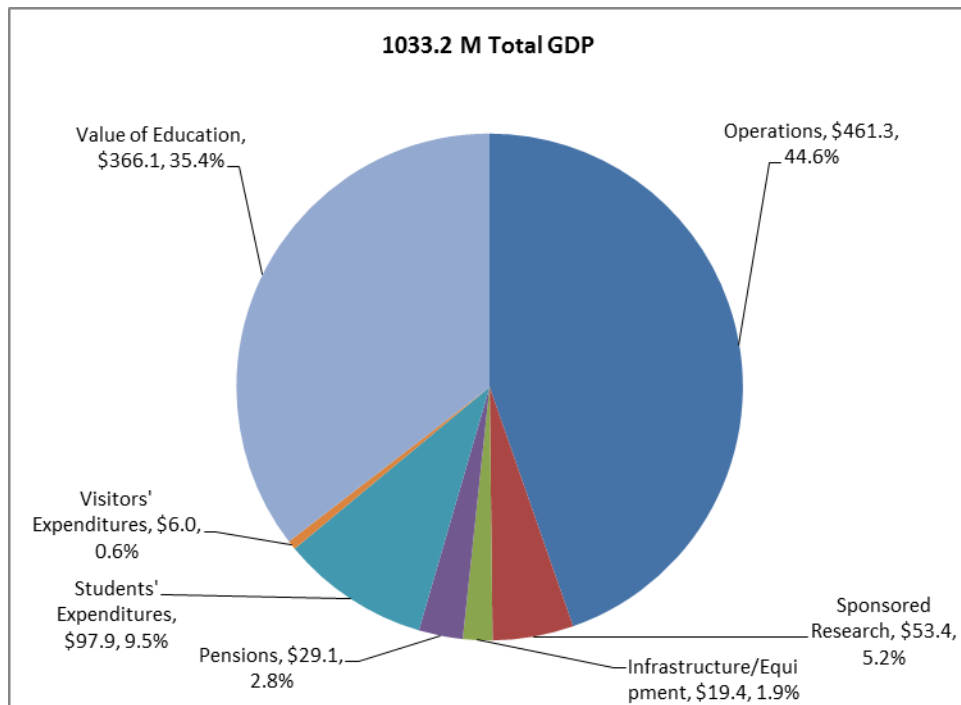


Figure 111: GDP Impacts for the St. John's Campus of MUN by Region – All Functions

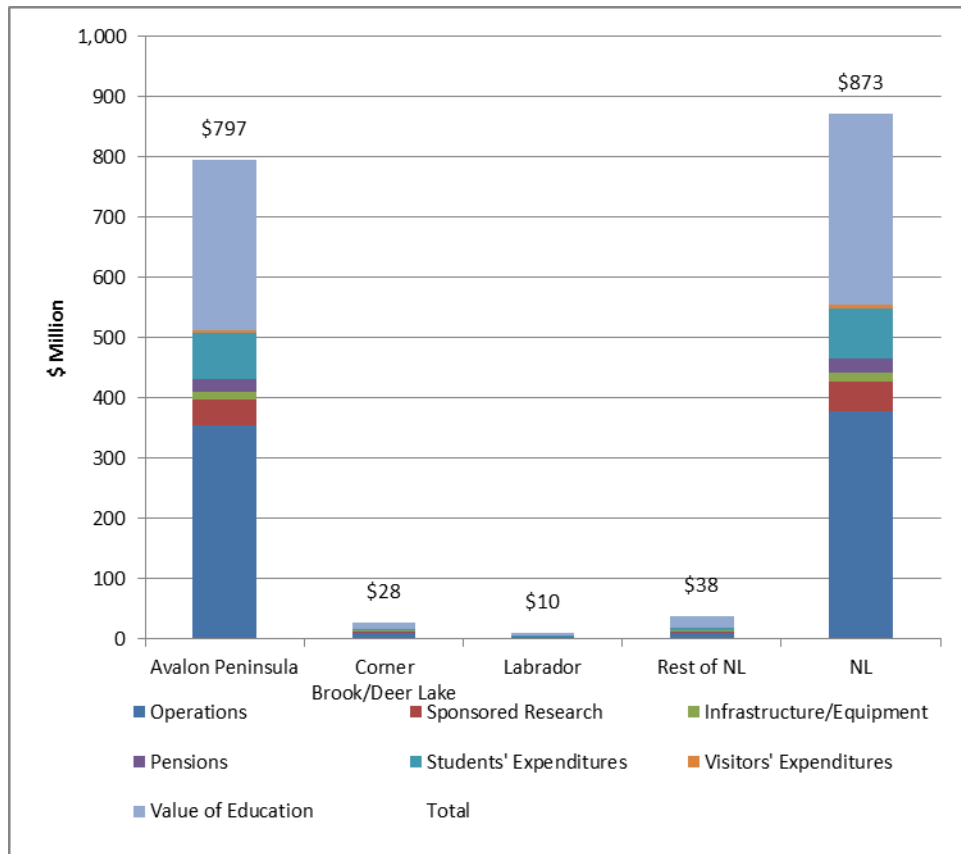


Figure 112: Share of GDP Impacts for the St. John's Campus of MUN by Region – All Functions

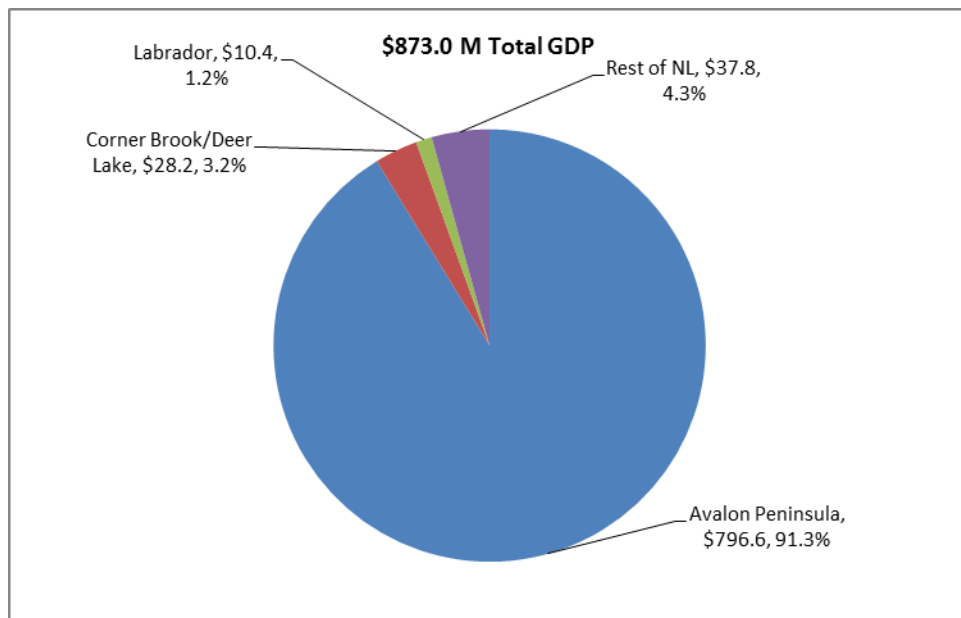


Figure 113: Share of GDP Impacts for the St. John's Campus of MUN by Function

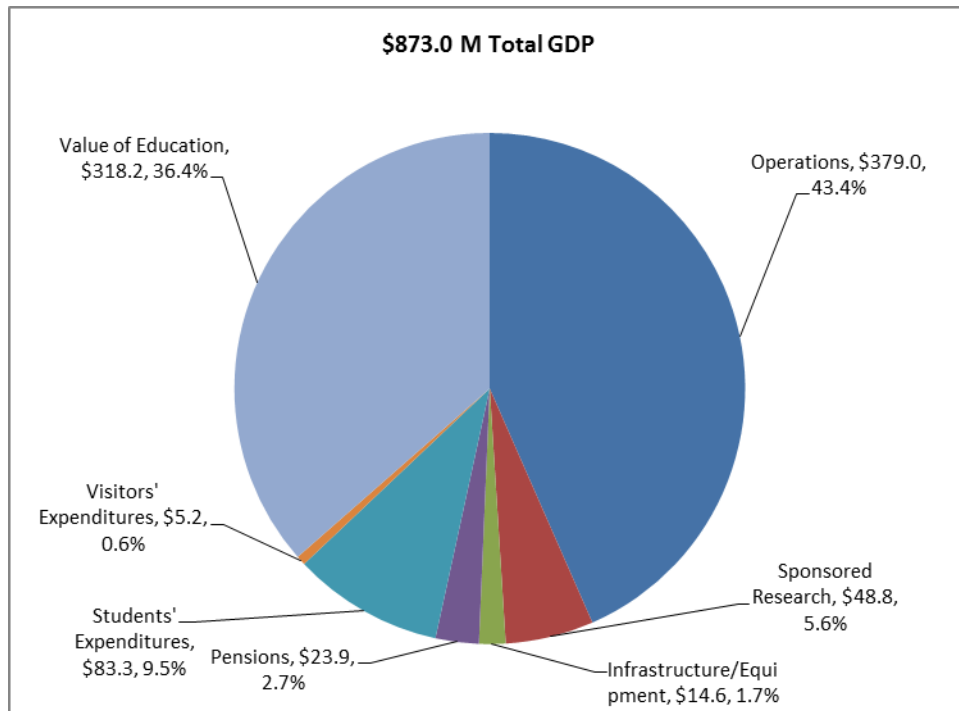


Figure 114: GDP Impacts for the Marine Institute of MUN by Region – All Functions

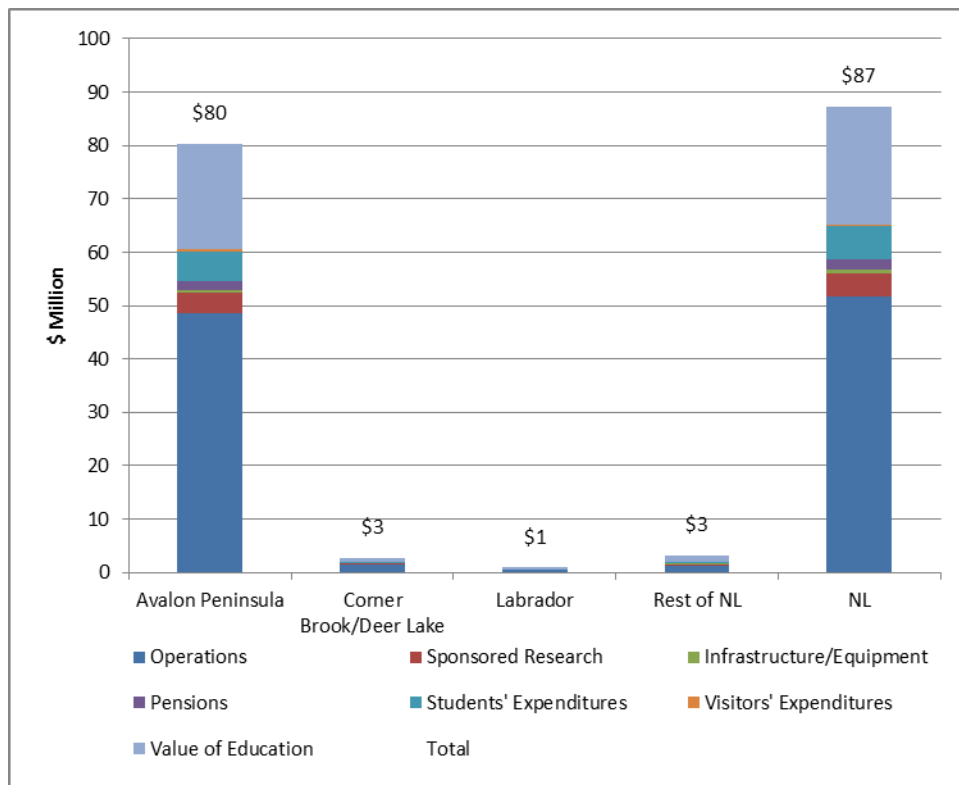


Figure 115: Share of GDP Impacts for the Marine Institute MUN by Region – All Functions

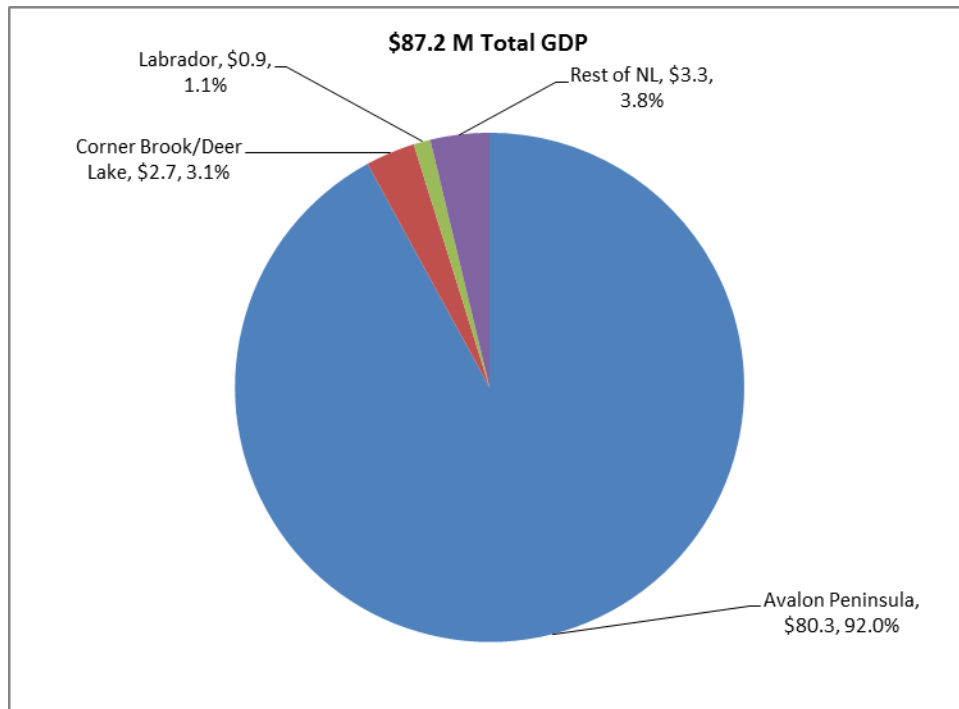


Figure 116: Share of GDP Impacts for the Marine Institute of MUN by Function

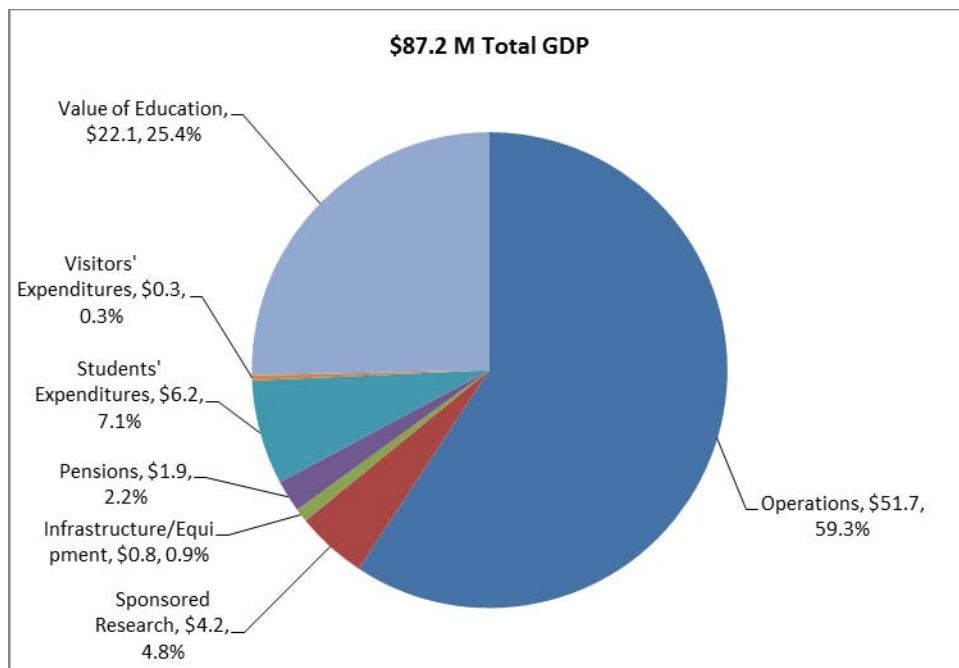


Figure 117: GDP Impacts for the Grenfell campus of MUN by Region – All Functions

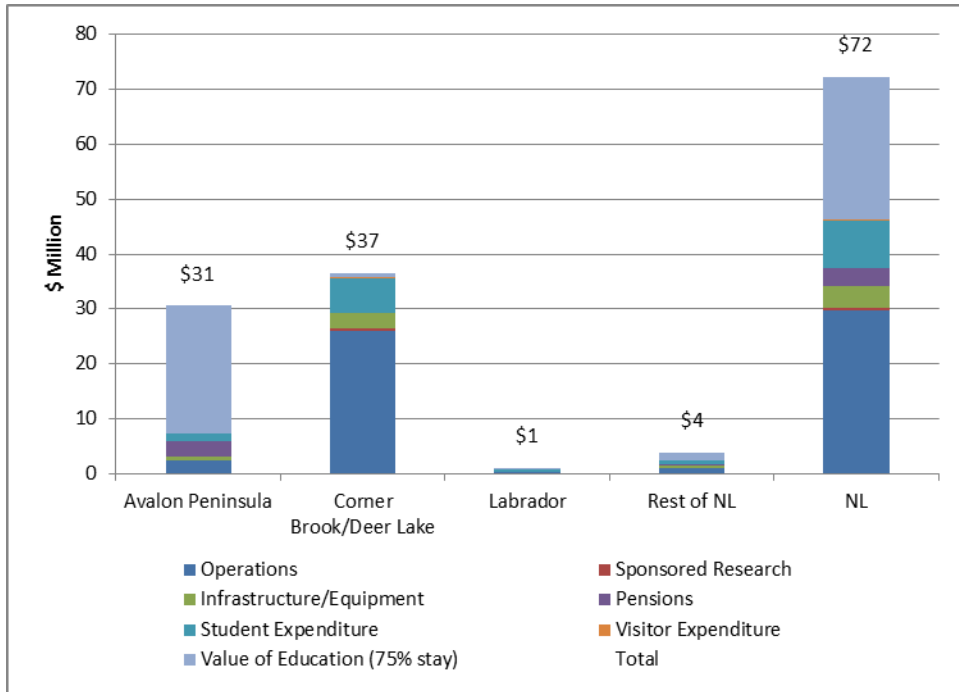


Figure 118: Share of GDP Impacts for the Grenfell campus of MUN by Region – All Functions

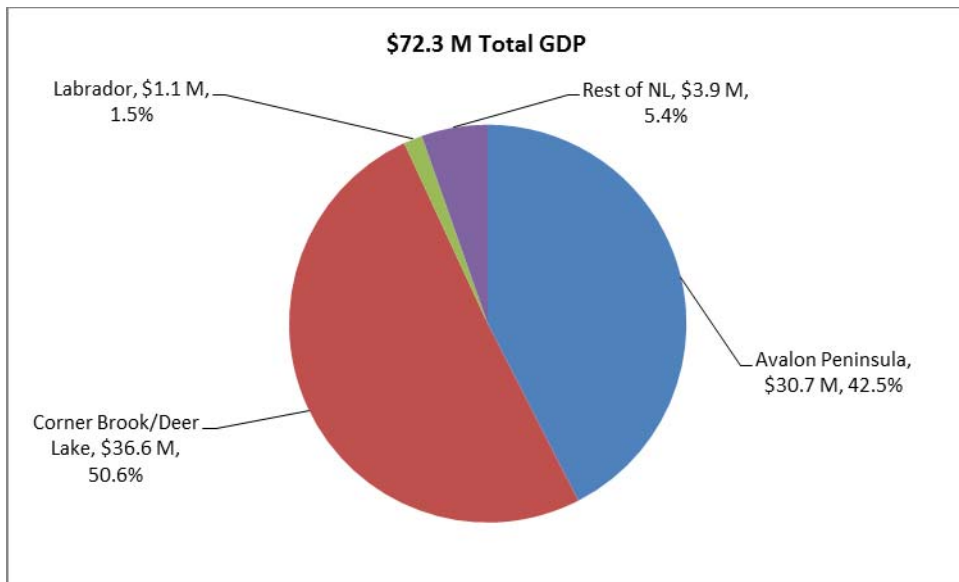
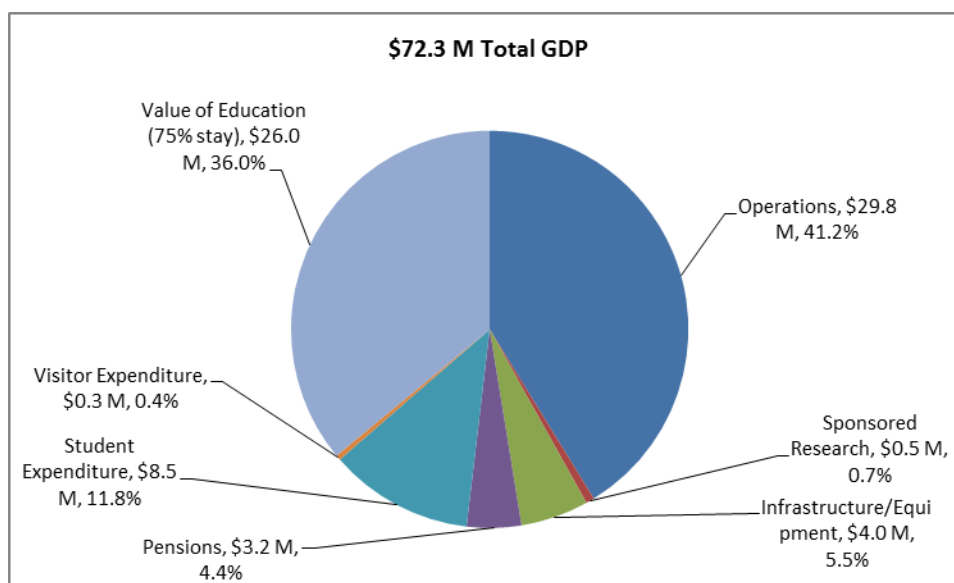




Figure 119: Share of GDP Impacts for the Grenfell campus of MUN by Function



## 11.4 Summary Outputs – Municipal Revenues

As shown in Table 87, Figure 120, and Figure 121, average municipal revenues that were linked to MUN at all of its campuses are \$24.0 million per year— 85.7% (\$20.3 million) at the St. John’s campus; 6.7% (\$1.6 million) at the Marine Institute; 7.6% (\$1.8 million) at the Grenfell campus, and none in Labrador.

Figure 122 and Figure 123 show that 92.9% (\$22.2 million) of these municipal revenues occurred on the Avalon Peninsula, 4.9% of the municipal revenues (\$1.1 million) were located in the Corner Brook/Deer Lake region; 0.7% of the municipal revenues (\$0.2 million) was attributable to Labrador, and 1.9% of the municipal revenues (\$0.4 million) were accounted for by the rest of NL.

The shares of municipal revenues by input category for all campuses are highlighted in Figure 124. Operating expenditures generated \$6.4 million per year, which represented 26.7% of the municipal revenues that were connected to MUN. The municipal revenues associated with having a higher educated workforce were \$12.7 million per year (52.9%), followed by employment that emanated from students’ expenditures and sponsored research — \$2.6 million (10.8%) and \$0.7 million (2.9%), respectively. Pensions accounted for \$1.0 million of the municipal revenues (4.2%), investment in infrastructure and equipment for \$0.4 million of the municipal revenues (1.7%), and visitors’ expenditures for 0.8% of the municipal revenues or \$0.2 million per year.

As shown in Figure 125 and Figure 126, average municipal revenues linked to MUN at its St. John’s campus were \$20.3 million per year. Approximately, 96.9% of the municipal revenues (\$19.5 million) occurred on the Avalon Peninsula, 1.2% of the municipal revenues (\$0.2 million) in the Corner Brook/Deer Lake region, 0.3% of the municipal revenues (\$0.1 million) were created in Labrador, and 1.6% of the municipal revenues (\$0.3 million) originated in the rest of Newfoundland and Labrador.

The shares of municipal revenues by input category for the St. John’s campus are highlighted in Figure 127. Operating expenditures generated \$5.2 million of municipal revenues per year, which represented

25.6% of the municipal revenues that was traced to the St. John's campus of MUN. The municipal revenues associated with having a higher educated workforce were associated with 54.2% of the municipal revenues (\$11.0 million), followed by municipal revenues that emanated from students' expenditures and sponsored research — \$2.2 million (10.8%) and \$0.7 million (3.4%), respectively. Pensions accounted for \$0.8 million (3.9%), investment in infrastructure and equipment for \$0.3 million (1.5%), and visitors' expenditures for 0.5% or \$0.1 million per year.

As shown in Figure 128 and Figure 129, average municipal revenues linked to MUN at its Marine Institute were \$1.6 million per year. This represented 100% of the municipal revenues being generated on the Avalon Peninsula from this source.

The shares of municipal revenues by input category for the Marine Institute are highlighted in Figure 130. Operating expenditures generated \$0.7 million in municipal revenues per year, which represented 37.5% of the municipal revenues that was linked to the Marine Institute of MUN. The municipal revenues associated with having a higher educated workforce accounted for 41.1% (\$0.8 million), followed from students' expenditures and sponsored research — \$0.2 million (10.7%) and \$0.1 million (5.4%), respectively. Pensions accounted for \$0.1 million (5.4%); neither investment in infrastructure and equipment nor visitors' expenditures contributed to municipal revenues.

As shown in Figure 131 and Figure 132, average municipal revenues were linked to MUN at its Grenfell campus was \$1.8 million per year. Slightly more than 61% (\$1.1 million per year) of these municipal revenues occurred on the Avalon Peninsula and 38.9% municipal revenues (\$0.7 million) were found in the Corner Brook/Deer Lake region. No municipal revenues were generated in Labrador or in the rest of the province.

The shares of municipal revenues by input for the Grenfell campus are highlighted in Figure 133. Operating expenditures generated \$0.5 million of the municipal revenues (27.8%) per year. The municipal revenues associated with having a higher educated workforce was associated with 50.0% (\$0.9 million), followed by students' expenditures and sponsored research — \$0.2 million per year or 11.1% and none, respectively. Pensions accounted for \$0.1 million of the municipal revenues (5.6%), investment in infrastructure and equipment for \$0.1 million of the municipal revenues (5.6%), and visitors' accounted for none of the municipal revenues.

**Table 87: Summary Output – Municipal Revenues (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Municipal Revenue Over 10 Years - All Campuses</b>					
Operations	\$5.60	\$0.60	\$0.10	\$0.10	\$6.40
Sponsored Research	\$0.60	\$0.00	\$0.00	\$0.00	\$0.70
Infrastructure/Equipment	\$0.30	\$0.10	\$0.00	\$0.00	\$0.40
Pensions	\$1.00	\$0.00	\$0.00	\$0.00	\$1.00
Students' Expenditures	\$2.30	\$0.20	\$0.00	\$0.10	\$2.60
Visitors' Expenditures	\$0.20	\$0.00	\$0.00	\$0.00	\$0.20
Value of Education	<b>\$12.19</b>	<b>\$0.16</b>	<b>\$0.07</b>	<b>\$0.25</b>	\$12.68

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Total</b>	<b>\$22.19</b>	<b>\$1.06</b>	<b>\$0.17</b>	<b>\$0.45</b>	<b>\$23.98</b>
<b>Annual Average Municipal Revenue Over 10 Years – St. John's campuses</b>					
Operations	\$4.90	\$0.10	\$0.00	\$0.10	\$5.20
Sponsored Research	\$0.60	\$0.00	\$0.00	\$0.00	\$0.70
Infrastructure/Equipment	\$0.30	\$0.00	\$0.00	\$0.00	\$0.30
Pensions	\$0.80	\$0.00	\$0.00	\$0.00	\$0.80
Students' Expenditures	\$2.20	\$0.00	\$0.00	\$0.00	\$2.20
Visitors' Expenditures	\$0.10	\$0.00	\$0.00	\$0.00	\$0.10
Value of Education	<b>\$10.60</b>	<b>\$0.14</b>	<b>\$0.06</b>	<b>\$0.22</b>	<b>\$11.02</b>
<b>Total</b>	<b>\$19.50</b>	<b>\$0.24</b>	<b>\$0.06</b>	<b>\$0.32</b>	<b>\$20.32</b>
<b>Annual Average Municipal Revenue Over 10 Years – Marine Institute campuses</b>					
Operations	\$0.70	\$0.00	\$0.00	\$0.00	\$0.70
Sponsored Research	\$0.10	\$0.00	\$0.00	\$0.00	\$0.10
Infrastructure/Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pensions	\$0.10	\$0.00	\$0.00	\$0.00	\$0.10
Students' Expenditures	\$0.20	\$0.00	\$0.00	\$0.00	\$0.20
Visitors' Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Value of Education	<b>\$0.74</b>	<b>\$0.01</b>	<b>\$0.00</b>	<b>\$0.02</b>	<b>\$0.77</b>
<b>Total</b>	<b>\$1.60</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1.60</b>
<b>Annual Average Municipal Revenue Over 10 Years - Grenfell campuses</b>					
Operations	\$0.00	\$0.40	\$0.00	\$0.00	\$0.50
Sponsored Research	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Infrastructure/Equipment	\$0.00	\$0.10	\$0.00	\$0.00	\$0.10
Pensions	\$0.10	\$0.00	\$0.00	\$0.00	\$0.10
Students' Expenditures	\$0.00	\$0.20	\$0.00	\$0.00	\$0.20
Visitors Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Value of Education	<b>\$0.86</b>	<b>\$0.01</b>	<b>\$0.01</b>	<b>\$0.02</b>	<b>\$0.89</b>
<b>Total</b>	<b>\$0.96</b>	<b>\$0.71</b>	<b>\$0.01</b>	<b>\$0.02</b>	<b>\$1.79</b>
<b>Annual Average Municipal Revenue Over 10 Years – Labrador Institute</b>					
Operations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Sponsored Research	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Infrastructure/Equipment	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Pensions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Students' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Visitors' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Value of Education	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Figure 120: Municipal Revenues Impacts for All Campuses of MUN by Campus – All Functions

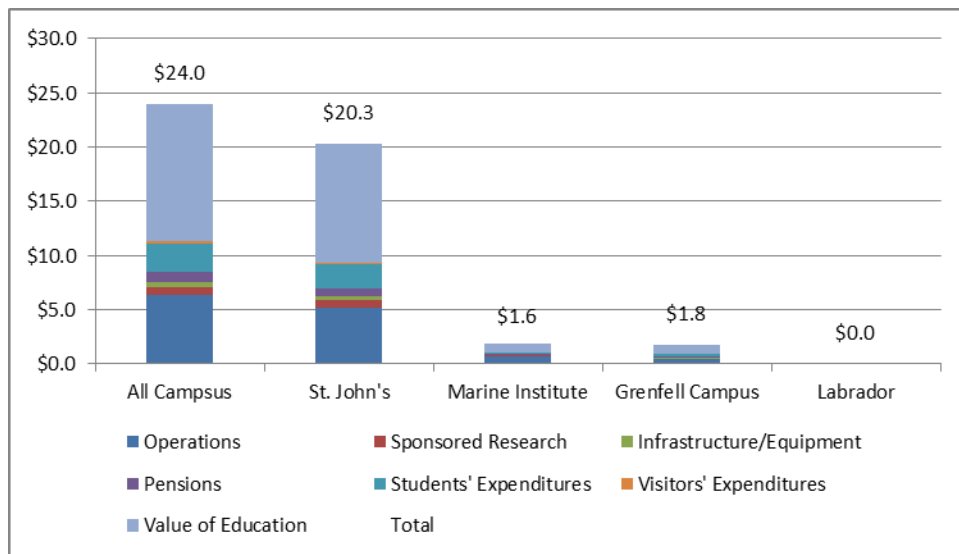


Figure 121: Share of Municipal Revenues Impacts for All Campuses of MUN by Campus – All Functions

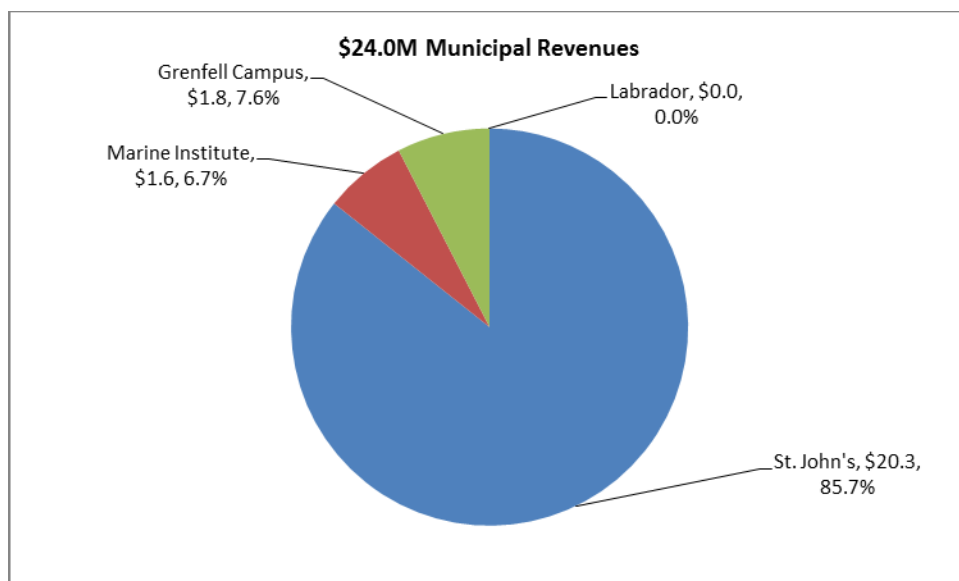


Figure 122: Municipal Revenues Impacts for All Campuses of MUN by Region – All Functions

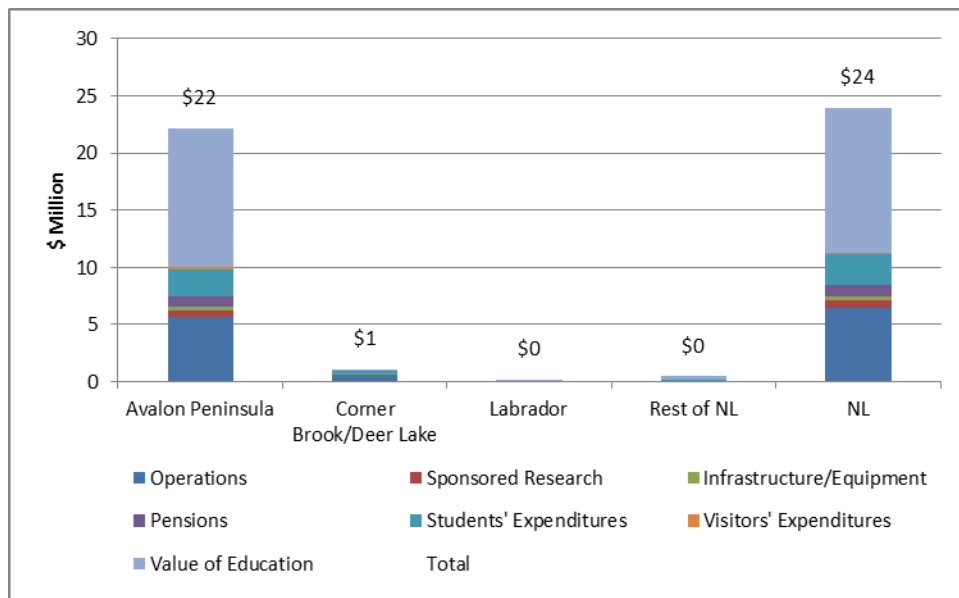


Figure 123: Share of Municipal Revenues Impacts for All Campuses of MUN by Region – All Functions

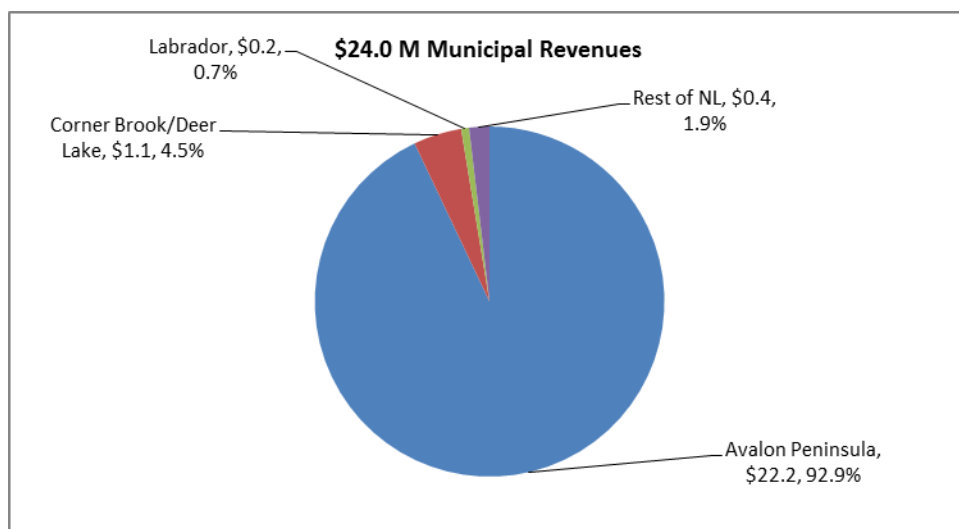


Figure 124: Share of Municipal Revenues Impacts for All Campuses of MUN by Function

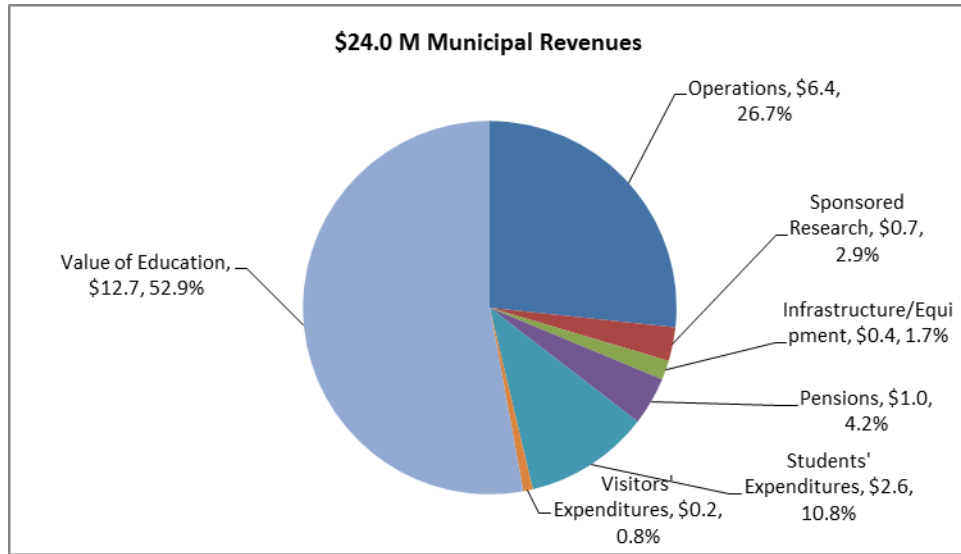


Figure 125: Municipal Revenues Impacts for the St. John's Campus of MUN by Region – All Functions

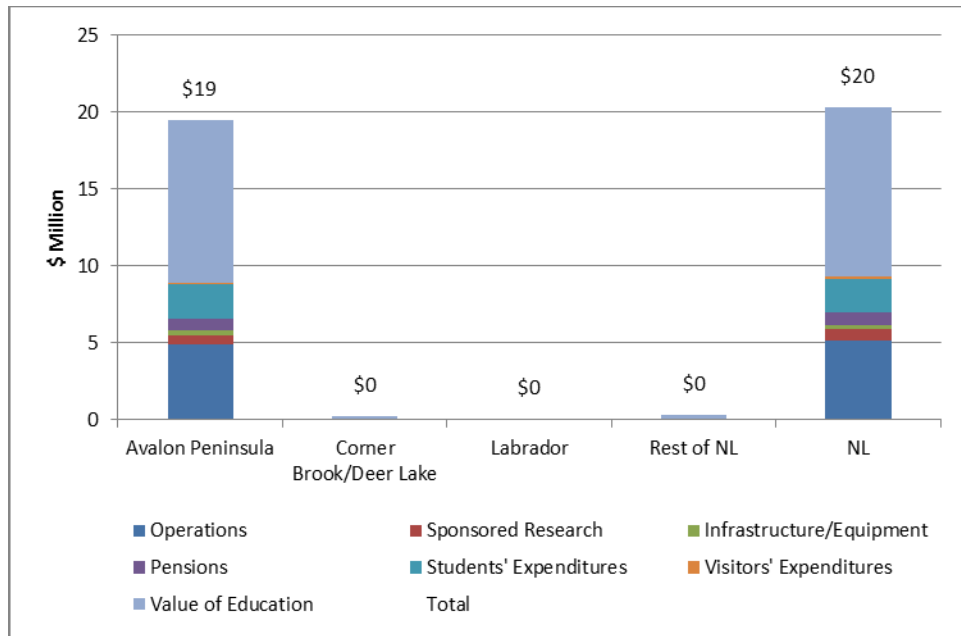


Figure 126: Share of Municipal Revenues Impacts for the St. John's Campus of MUN by Region – All Functions

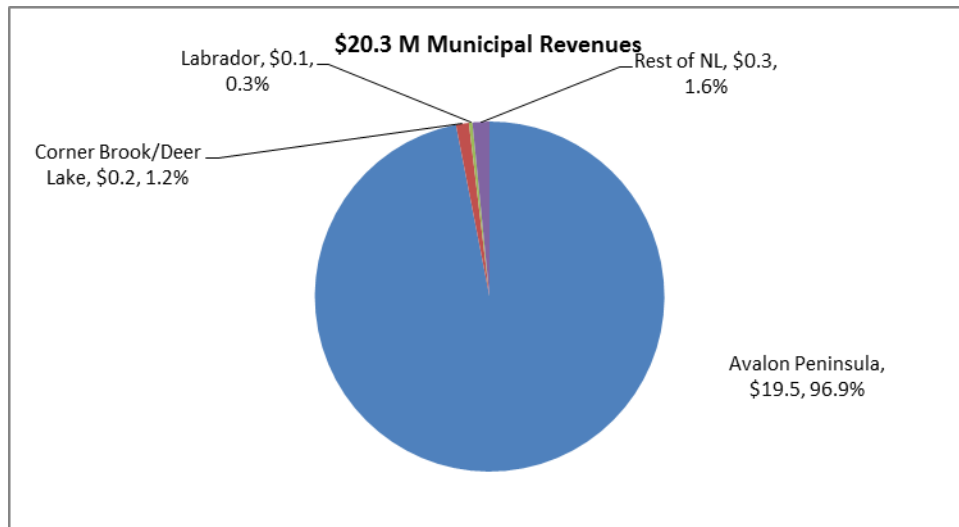


Figure 127: Share of Municipal Revenues Impacts for the St. John's Campus of MUN by Function

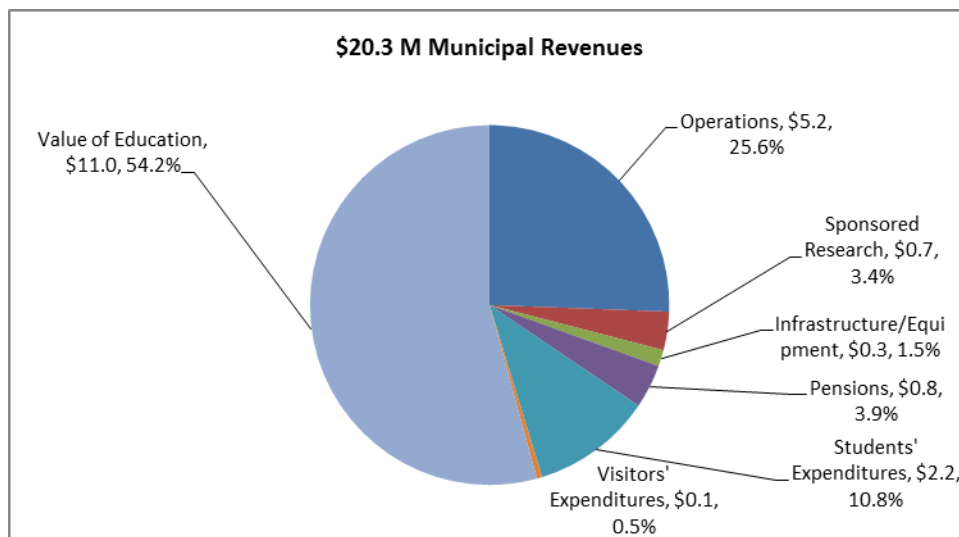


Figure 128: Municipal Revenues Impacts for the Marine Institute of MUN by Region – All Functions

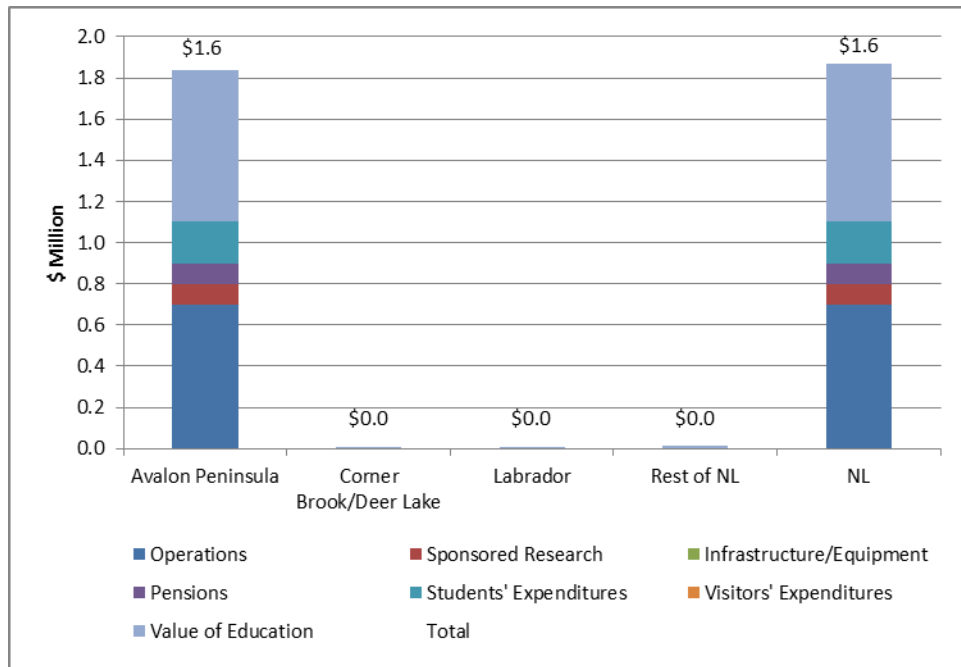


Figure 129: Share of Municipal Revenues Impacts for the Marine Institute of MUN by Region – All Functions





Figure 130: Share of Municipal Revenues Impacts for the Marine Institute of MUN by Function

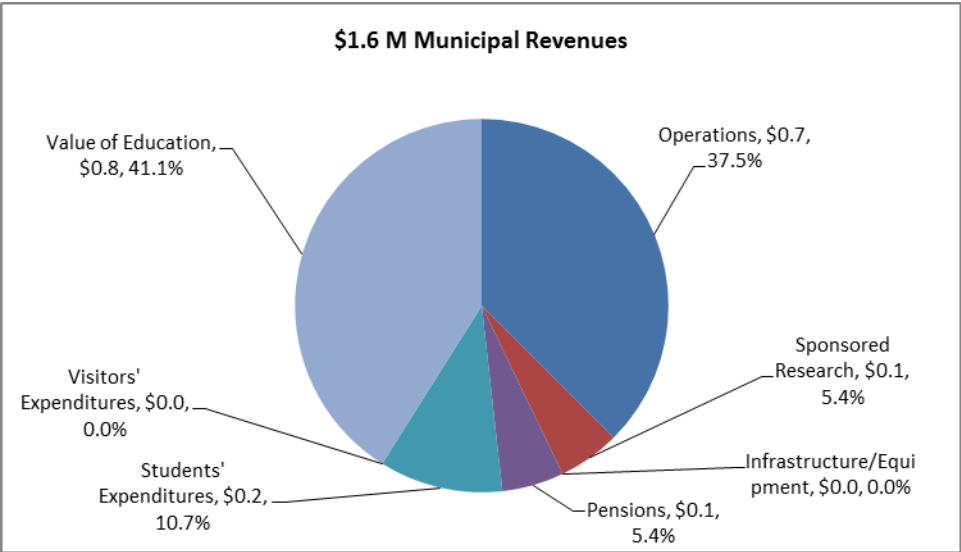


Figure 131: Municipal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions

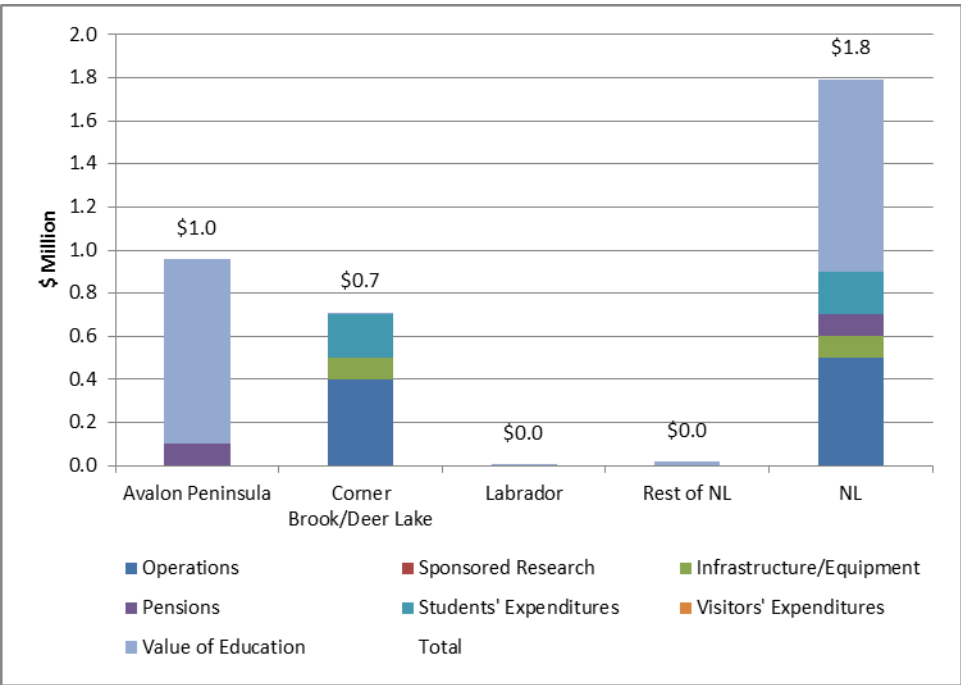


Figure 132: Share of Municipal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions

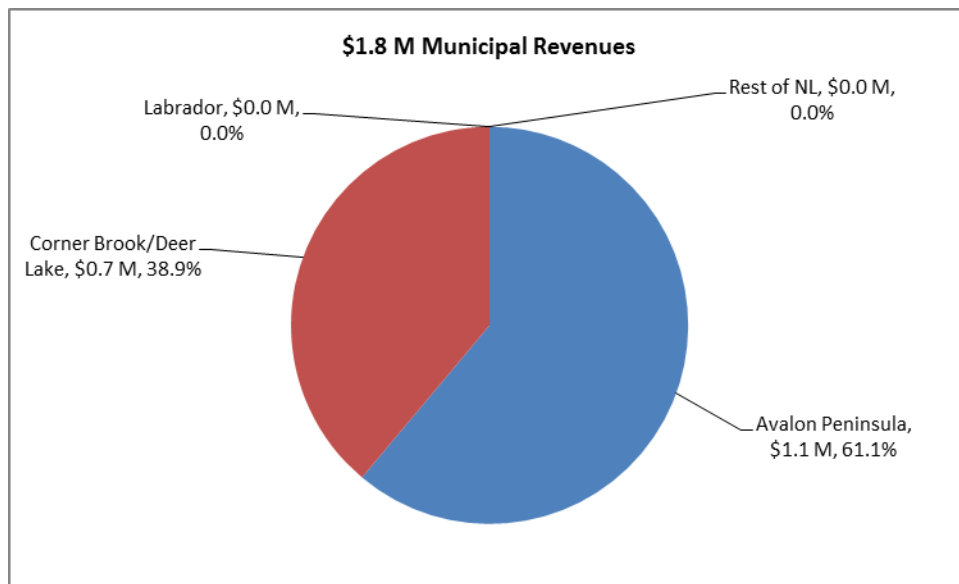
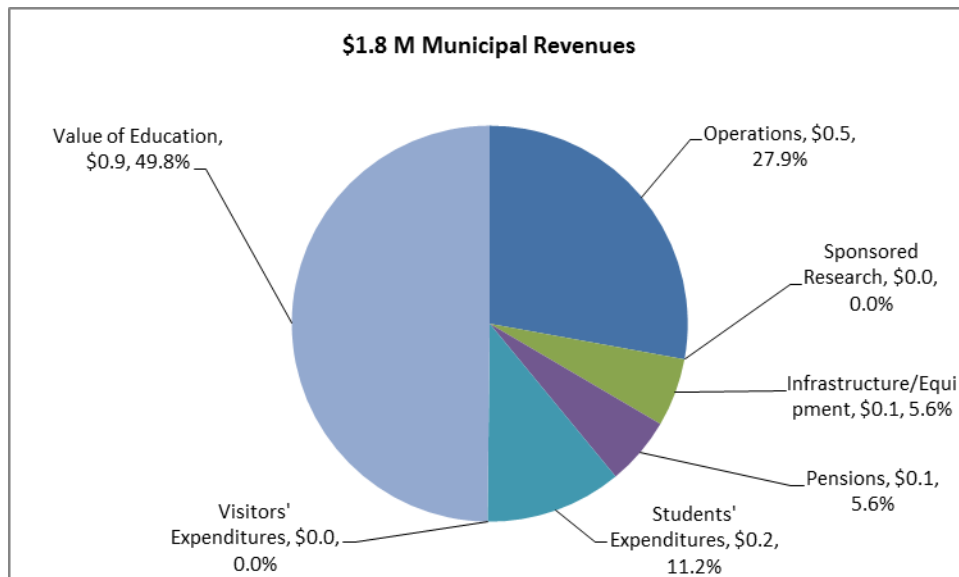


Figure 133: Share of Municipal Revenues Impacts for the Grenfell campus of MUN by Function



## 11.5 Summary Outputs – Provincial Revenues

Provincial revenues that were linked to MUN at all of its campuses were \$138.5 million per year— 85.1% (\$117.7 million per year) were associated with the St. John's campus; 7.1% of the provincial revenues (\$9.8 million) were connected to the Marine Institute, 7.7% of the provincial revenues (\$10.6 million) were attributable to the Grenfell campus, and 0.1% of the provincial revenues (\$0.1 million) were found in Labrador.

Figure 136 and Figure 137 show that 91.6% (\$126.9 million per year) of these provincial revenues were generated on the Avalon Peninsula; 5.0% of the provincial revenues (\$6.9 million) came from the Corner

Brook/Deer Lake region, 0.8% of the provincial revenues (\$1.1 million) were found in Labrador, and 2.7% of the provincial revenues (\$3.7 million) were attributable to the rest of Newfoundland.

The shares of provincial revenues by input category for all campuses are highlighted in Figure 138. Operating expenditures generated \$46.5 million, which represented 33.6% of the provincial revenues connected to MUN. The provincial revenues associated with having a higher educated workforce was \$64.4 million of the provincial revenues per year (46.5%), followed by students' expenditures and sponsored research — \$14.1 million (10.2%) and \$5.5 million in provincial revenues per year (4.0%), respectively. Pensions accounted for \$5.0 million of the provincial revenues (3.6%), investment in infrastructure and equipment for \$2.1 million (1.5%), and visitors' expenditures for 0.6% of the provincial revenues or \$0.9 million per year.

As shown in Figure 139 and Figure 140, average provincial revenues linked to MUN at its St. John's campus were \$117.7 million per year. Slightly more than 94.5% of the provincial revenues (\$111.2 million) occurred on the Avalon Peninsula, 2.1% of the provincial revenues (\$2.4 million) in the Corner Brook/Deer Lake region, 0.8% of the provincial revenues (\$0.9 million) came from Labrador, and 2.7% (\$3.1 million) of the provincial revenues associated with MUN were manifested in the rest of Newfoundland.

The shares of provincial revenues by input category for the St. John's campus are highlighted in Figure 141. Operations expenditures generated \$38.2 million per year, which represented 32.5% of the provincial revenues associated with the St. John's campus of MUN. Provincial revenues associated with having a higher educated workforce was \$56.0 million per year (47.6%), followed by students' expenditures and sponsored research — \$12.1 million (10.3%) and \$5.0 million (4.2%), respectively. Pensions accounted for \$4.1 million of the provincial revenues (3.5%), investment in infrastructure and equipment for \$1.6 million of the provincial revenues (1.4%), and visitors' expenditures for 0.6% of the provincial revenues or \$0.7 million per year.

As shown in Figure 142 and Figure 143, average provincial revenues linked to MUN at its Marine Institute amounted to \$10.6 million per year. Nearly 96.2% of the provincial revenues (\$10.6 million) occurred on the Avalon Peninsula; 1.6% of the provincial revenues (\$0.2 million) came from the Corner Brook/Deer Lake region; none of the provincial revenues were generated in Labrador; and 2.0% of the provincial revenues (\$0.2 million) originated in the rest of Newfoundland.

The shares of provincial revenues by input for the Marine Institute are highlighted in Figure 144. Operating expenditures generated \$5.1 million in provincial revenues per year, which represented 48.1%. The provincial revenues associated with having a higher educated workforce was \$3.9 (36.7%), followed by students' expenditures and sponsored research— \$0.8 million (7.6%) and \$0.4 million (3.8%), respectively. Pensions accounted for \$0.3 million of the provincial revenues (2.8%), investment in infrastructure and equipment for \$0.1 million of the provincial revenues (0.9%). There was no measureable association between visitors' expenditures and provincial revenues.

As shown in Figure 145 and Figure 146, average provincial revenues linked to MUN at its Grenfell campus totalled \$9.8 million per year. Nearly 53.4% (\$5.2 million per year) occurred on the Avalon

Peninsula; 43.9% (\$4.3 million) were in the Corner Brook/Deer Lake region; none of the provincial revenues took place in Labrador; and 2.3% of the provincial revenues (\$0.2 million) were generated in the rest of Newfoundland.

The shares of provincial revenues by input for the Grenfell campus are highlighted in Figure 147. Operations expenditures generated \$3.0 million in provincial revenues per year, which represented 30.5% of the provincial revenues that were traced to the St. John's campus of MUN. The provincial revenues associated with having a higher educated workforce were \$4.5 million (46.1%), followed by students' expenditures and sponsored research — \$1.2 million (12.2%) and \$0.1 million (1.0%), respectively. Pensions accounted for \$0.5 million of the provincial revenues (5.1%), investment in infrastructure and equipment for \$0.4 of the provincial revenues (4.1%), and visitors' expenditures for 1.0% of the provincial revenues or \$0.1 million.

**Table 88: Summary Output – Provincial Revenues (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Provincial Revenue Over 10 Years - All Campuses</b>					
Operations	\$41.30	\$3.70	\$0.40	\$1.10	\$46.50
Sponsored Research	\$4.90	\$0.30	\$0.10	\$0.20	\$5.50
Infrastructure/Equipment	\$1.50	\$0.40	\$0.00	\$0.20	\$2.10
Pensions	\$4.80	\$0.10	\$0.00	\$0.10	\$5.00
Students' Expenditures	\$12.50	\$1.20	\$0.10	\$0.30	\$14.10
Visitors' Expenditures	\$0.80	\$0.10	\$0.00	\$0.00	\$0.90
Value of Education	<b>\$61.06</b>	<b>\$1.09</b>	<b>\$0.49</b>	<b>\$1.78</b>	\$64.42
<b>Total</b>	<b>\$126.86</b>	<b>\$6.89</b>	<b>\$1.09</b>	<b>\$3.68</b>	<b>\$138.52</b>
<b>Annual Average Provincial Revenue Over 10 Years – St. John's campuses</b>					
Operations	\$36.10	\$0.90	\$0.30	\$0.90	\$38.20
Sponsored Research	\$4.50	\$0.20	\$0.10	\$0.20	\$5.00
Infrastructure/Equipment	\$1.40	\$0.10	\$0.00	\$0.10	\$1.60
Pensions	\$3.90	\$0.10	\$0.00	\$0.10	\$4.10
Students' Expenditures	\$11.50	\$0.20	\$0.10	\$0.30	\$12.10
Visitors' Expenditures	\$0.70	\$0.00	\$0.00	\$0.00	\$0.70
Value of Education	<b>\$53.07</b>	<b>\$0.94</b>	<b>\$0.42</b>	<b>\$1.55</b>	\$55.99
<b>Total</b>	<b>\$111.17</b>	<b>\$2.44</b>	<b>\$0.92</b>	<b>\$3.15</b>	<b>\$117.69</b>
<b>Annual Average Provincial Revenue Over 10 Years – Marine Institute campuses</b>					
Operations	\$4.90	\$0.10	\$0.00	\$0.10	\$5.10
Sponsored Research	\$0.40	\$0.00	\$0.00	\$0.00	\$0.40
Infrastructure/Equipment	\$0.10	\$0.00	\$0.00	\$0.00	\$0.10
Pensions	\$0.30	\$0.00	\$0.00	\$0.00	\$0.30
Students' Expenditures	\$0.80	\$0.00	\$0.00	\$0.00	\$0.80
Visitors' Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Value of Education	<b>\$3.69</b>	<b>\$0.07</b>	<b>\$0.03</b>	<b>\$0.11</b>	\$3.89
<b>Total</b>	<b>\$10.19</b>	<b>\$0.17</b>	<b>\$0.03</b>	<b>\$0.21</b>	<b>\$10.59</b>
<b>Annual Average Provincial Revenue Over 10 Years - Grenfell campuses</b>					

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Operations	\$0.20	\$2.70	\$0.00	\$0.10	\$3.00
Sponsored Research	\$0.00	\$0.00	\$0.00	\$0.00	\$0.10
Infrastructure/Equipment	\$0.10	\$0.30	\$0.00	\$0.00	\$0.40
Pensions	\$0.50	\$0.00	\$0.00	\$0.00	\$0.50
Students' Expenditures	\$0.10	\$1.10	\$0.00	\$0.00	\$1.20
Visitors' Expenditures	\$0.00	\$0.10	\$0.00	\$0.00	\$0.10
Value of Education	<b>\$4.30</b>	<b>\$0.08</b>	<b>\$0.03</b>	<b>\$0.13</b>	\$4.54
<b>Total</b>	<b>\$5.20</b>	<b>\$4.28</b>	<b>\$0.03</b>	<b>\$0.23</b>	<b>\$9.84</b>
<b>Annual Average Provincial Revenue Over 10 Years – Labrador Institute</b>					
Operations	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Sponsored Research	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Infrastructure/Equipment	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Pensions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Students' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Visitors' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Value of Education	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>

Figure 134: Provincial Revenues Impacts for All Campuses of MUN by Campus – All Functions

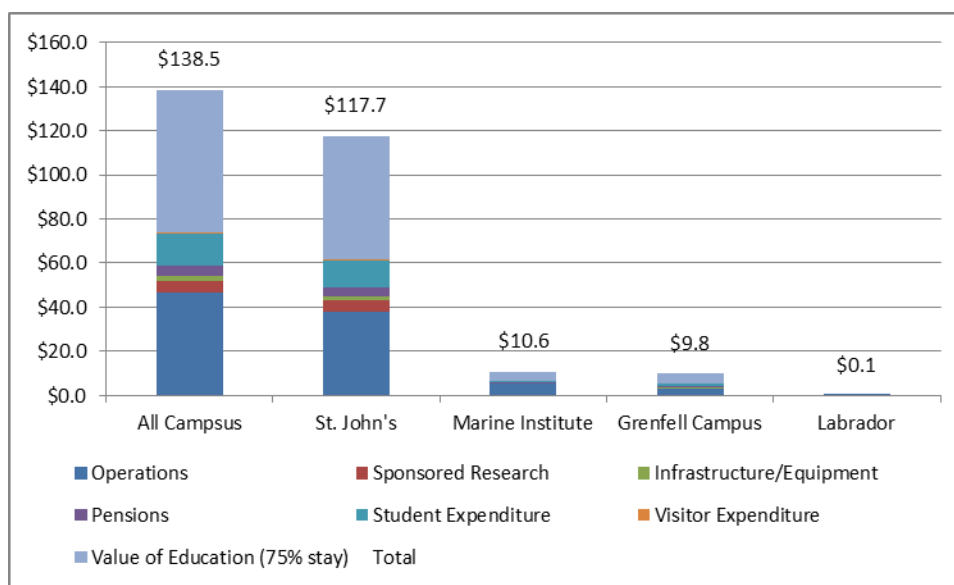


Figure 135: Share of Provincial Revenues Impacts for All Campuses of MUN by Campus – All Functions

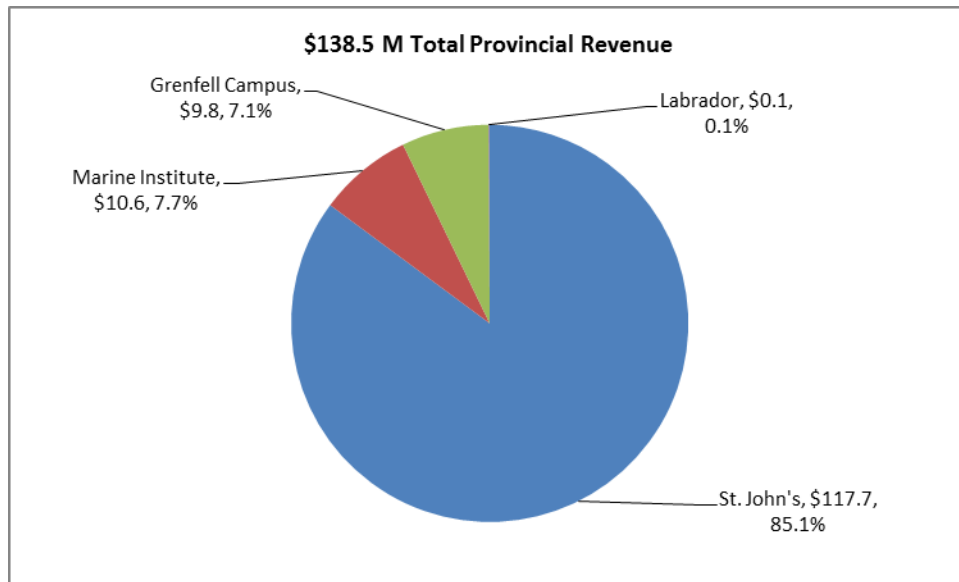


Figure 136: Provincial Revenues Impacts for All Campuses of MUN by Region – All Functions

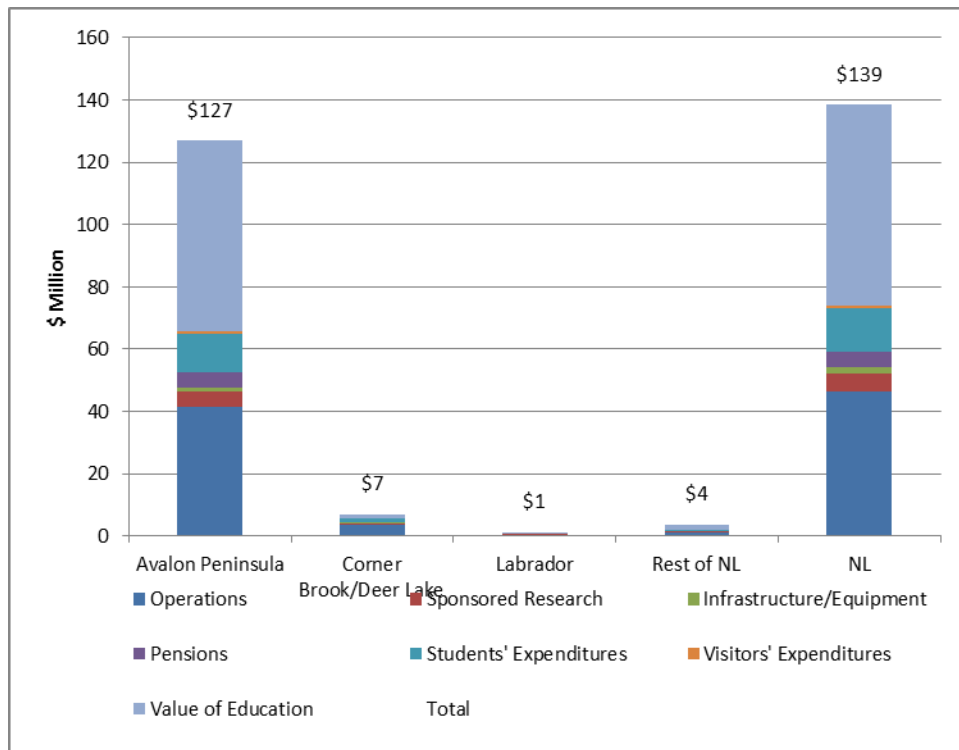


Figure 137: Share of Provincial Revenues Impacts for All Campuses of MUN by Region – All Functions

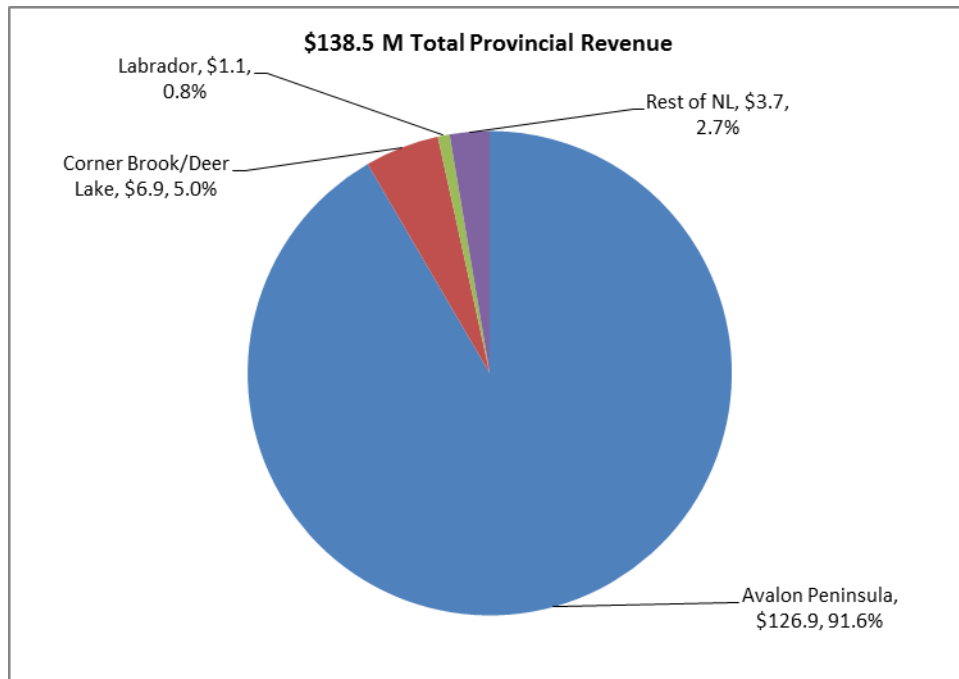


Figure 138: Share of Provincial Revenues Impacts for All Campuses of MUN by Function

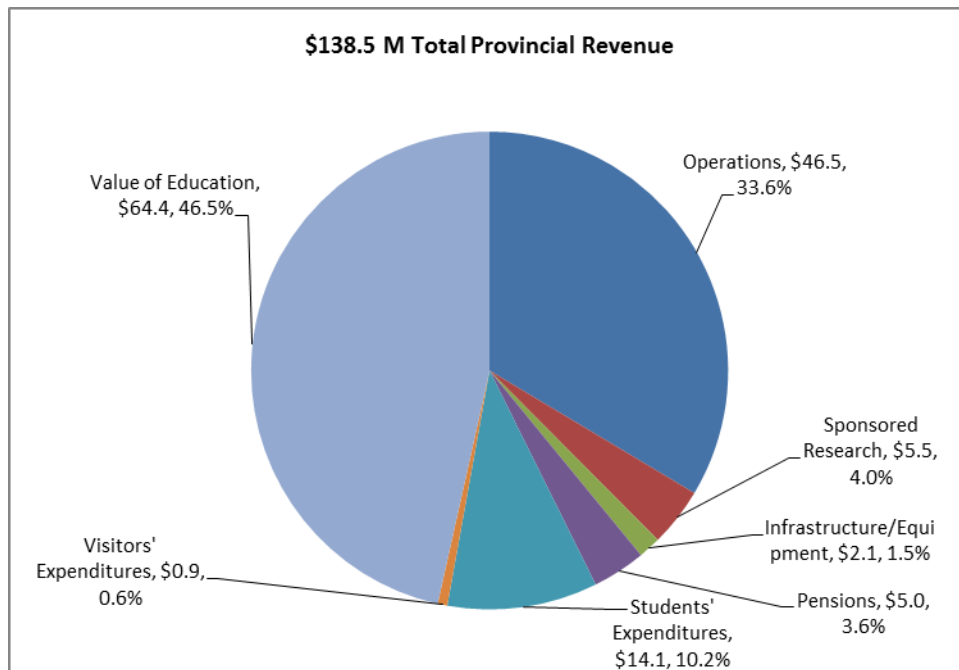


Figure 139: Provincial Revenues Impacts for the St. John's Campus of MUN by Region – All Functions

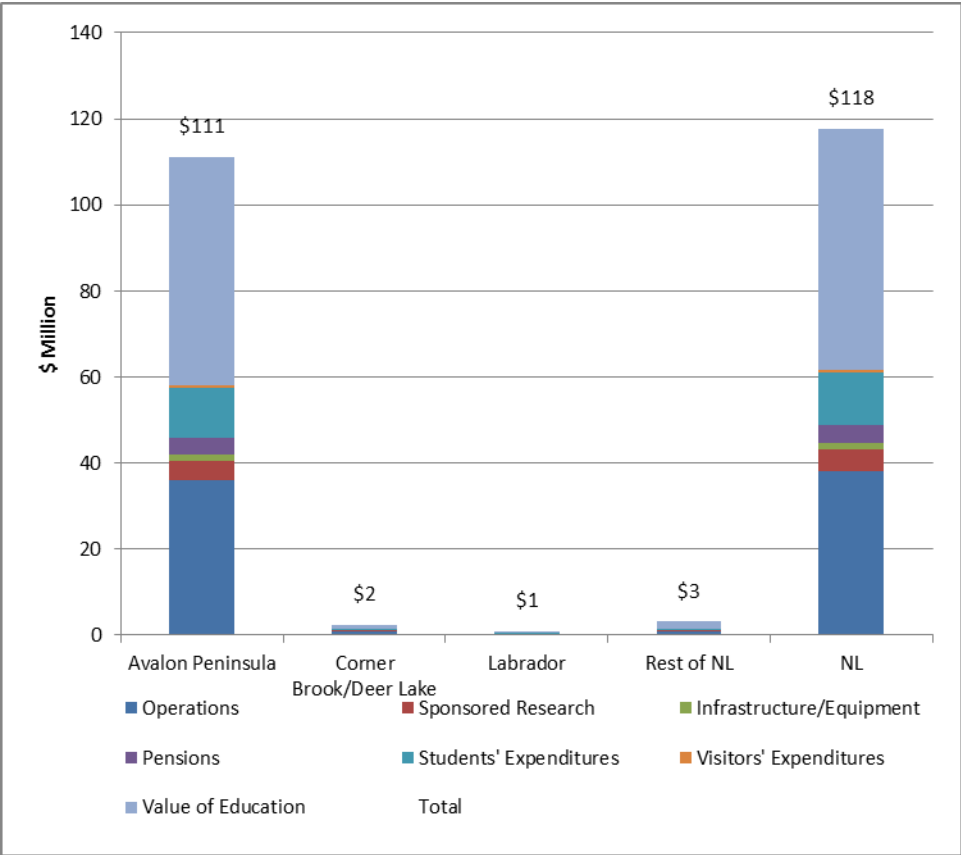




Figure 140: Share of Provincial Revenues Impacts for the St. John's Campus of MUN by Region – All Functions

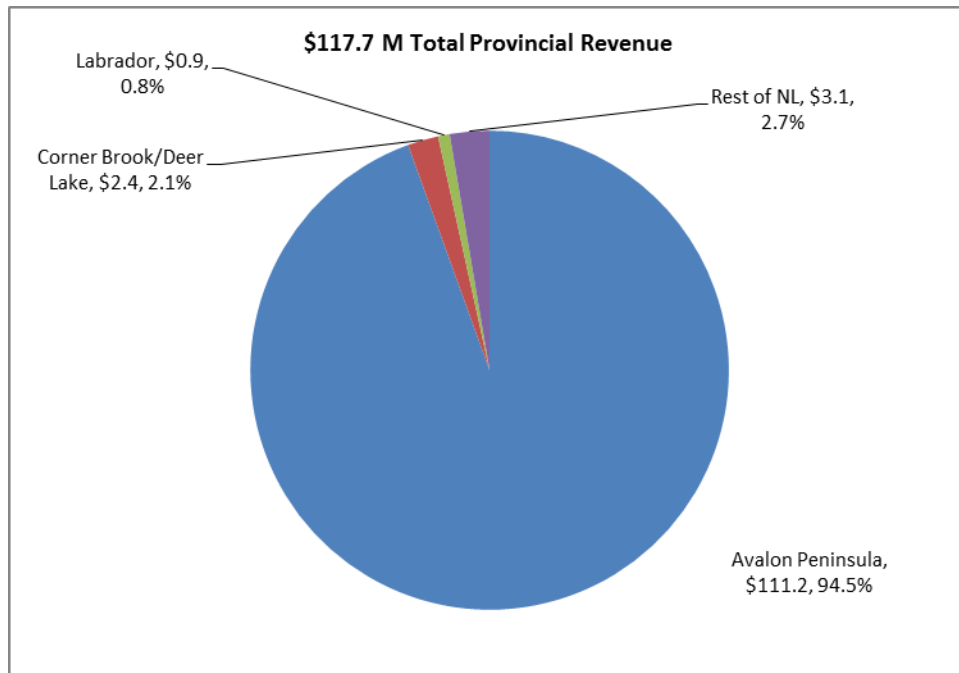


Figure 141: Share of Provincial Revenues Impacts for the St. John's Campus of MUN by Function

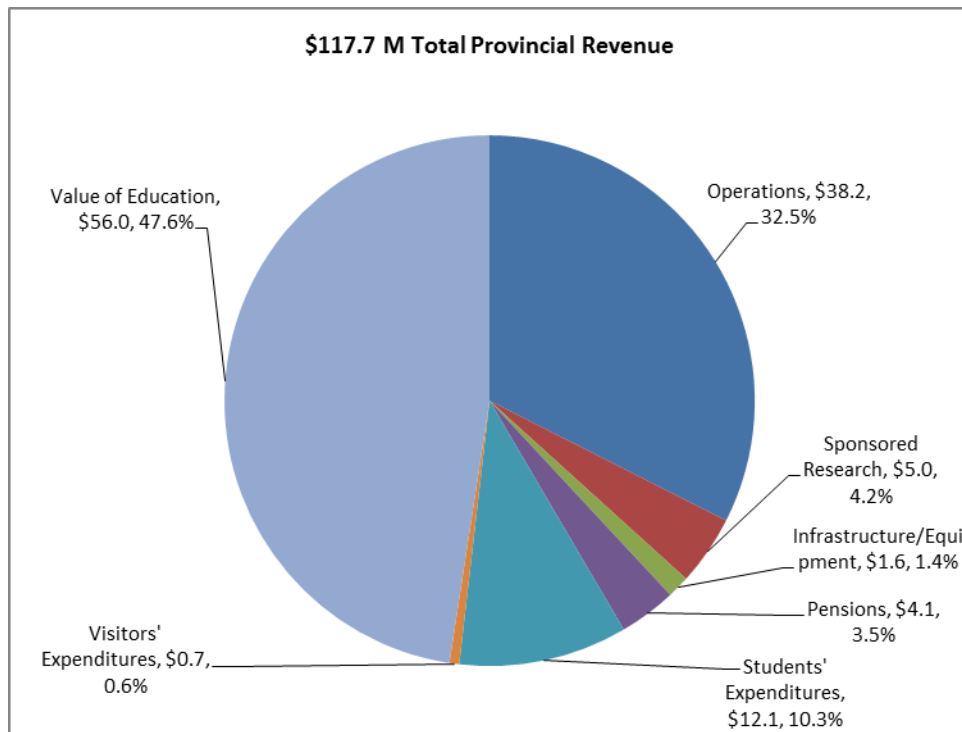


Figure 142: Provincial Revenues Impacts for the Marine Institute of MUN by Region – All Functions

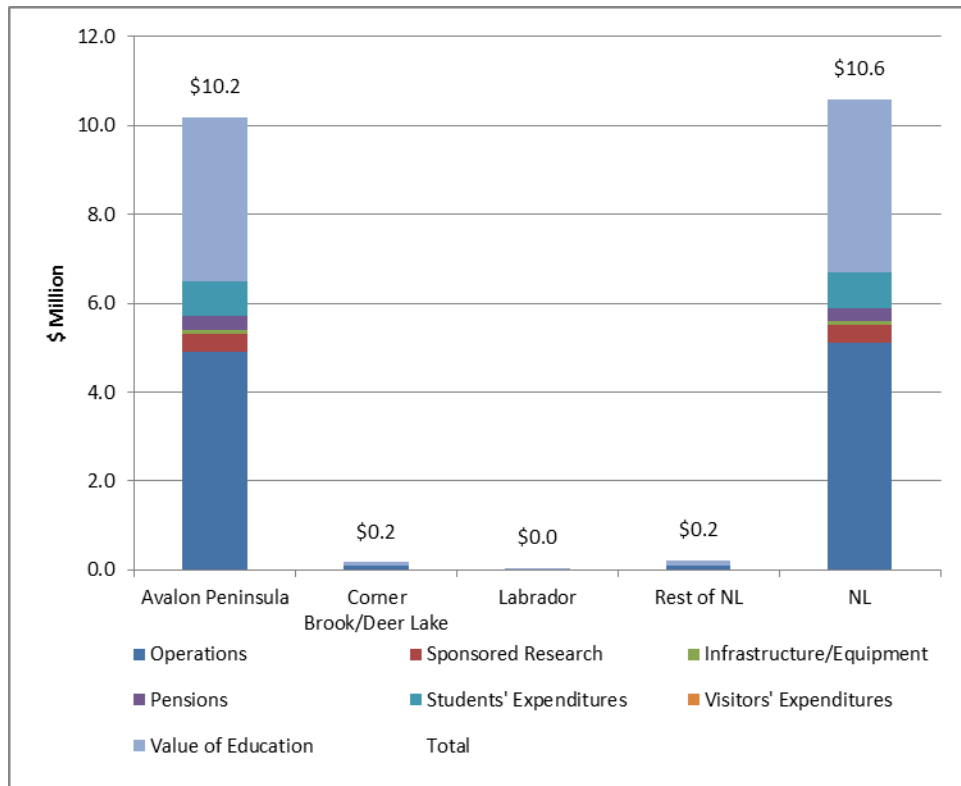


Figure 143: Share of Provincial Revenues Impacts for the Marine Institute of MUN by Region – All Functions

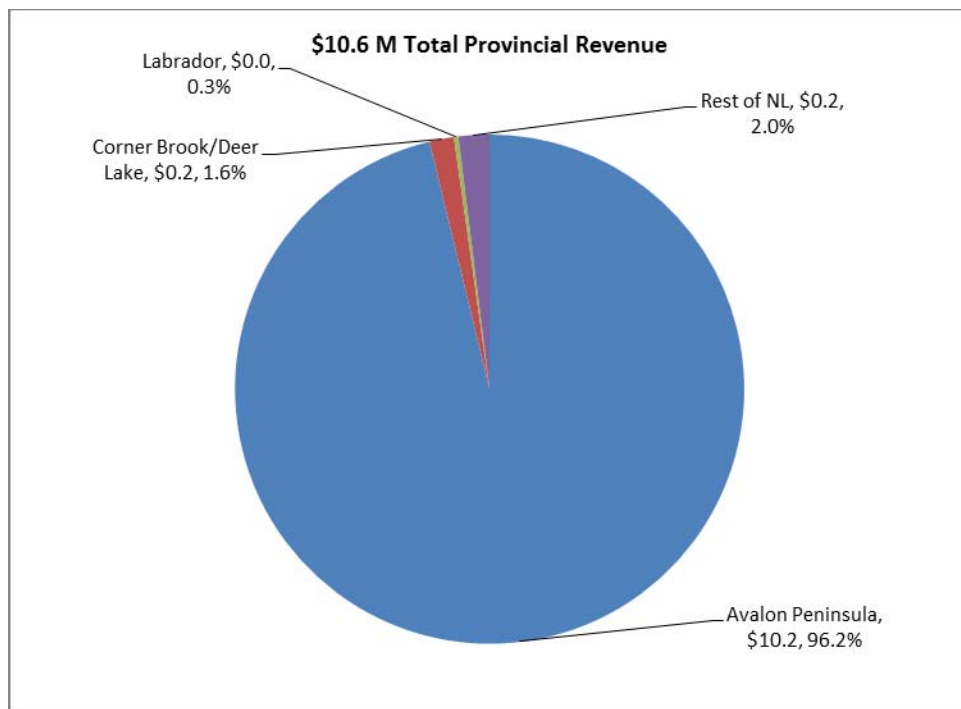


Figure 144: Share of Provincial Revenues Impacts for the Marine Institute of MUN by Function

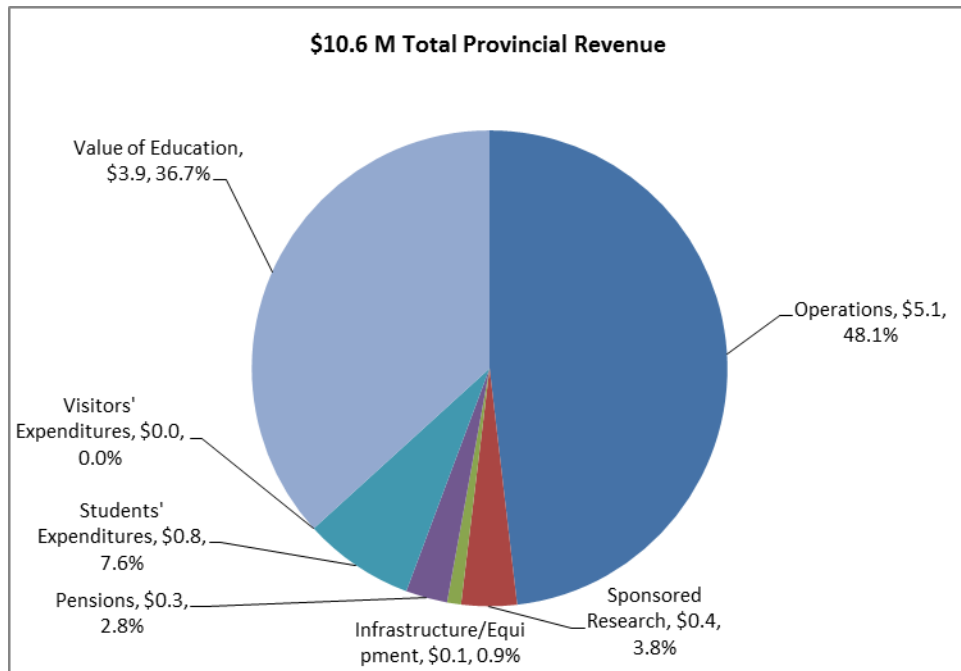


Figure 145: Provincial Revenues Impacts for the Grenfell campus of MUN by Region – All Functions

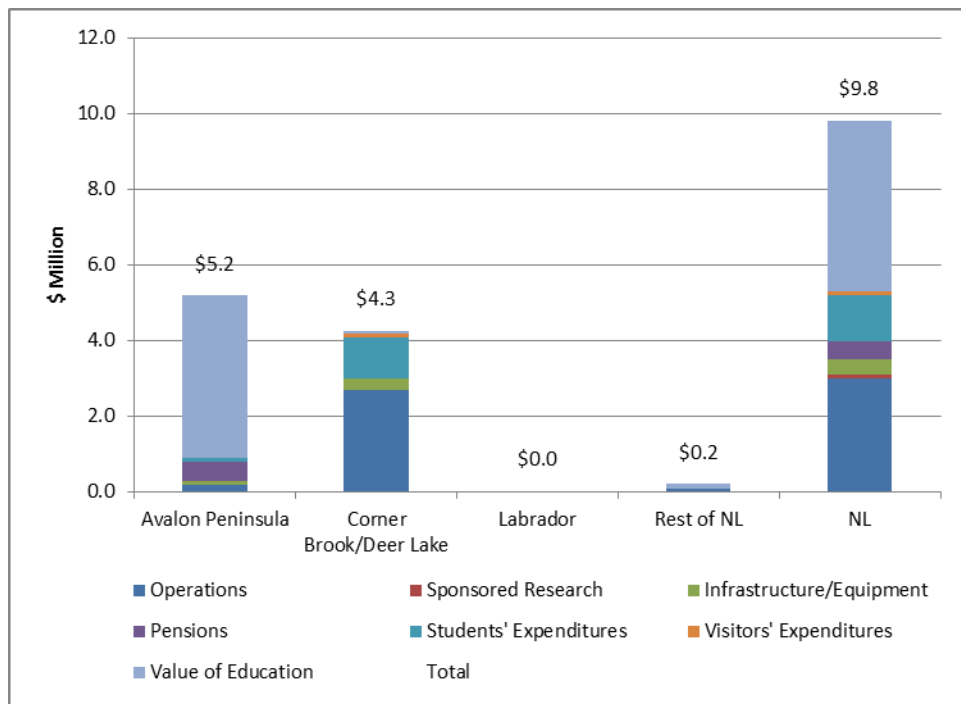


Figure 146: Share of Provincial Revenues Impacts for the Grenfell campus of MUN by Region – All Functions

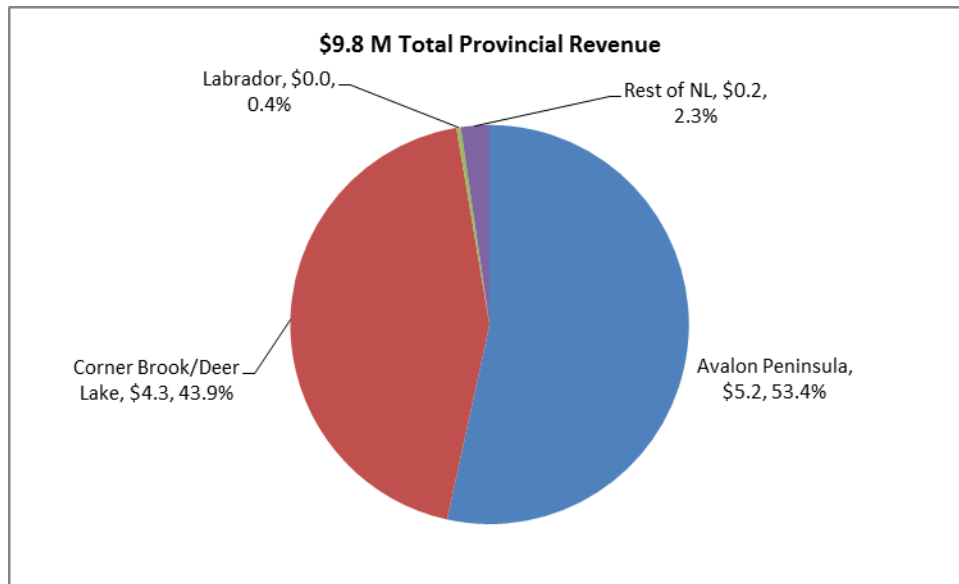
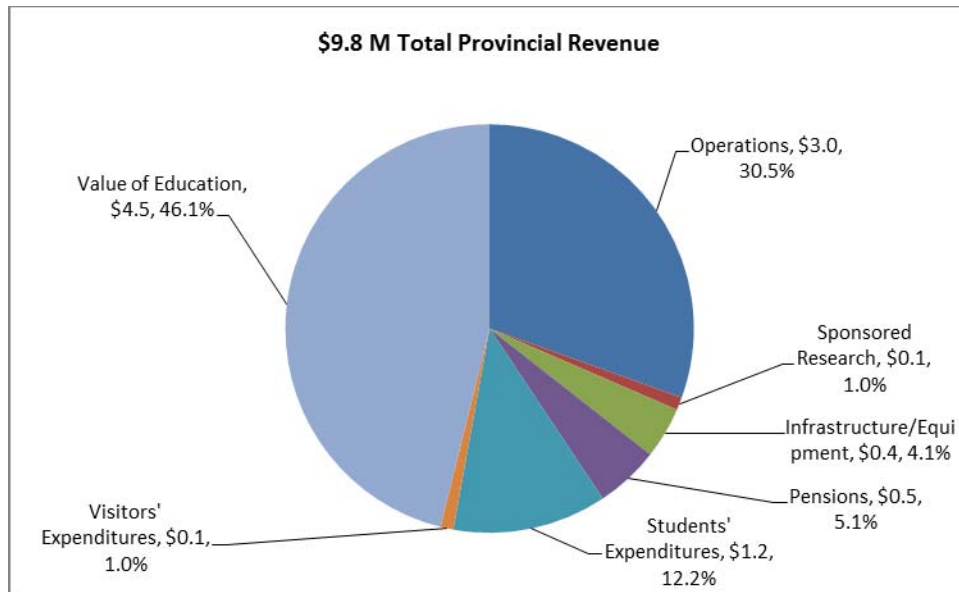


Figure 147: Share of Provincial Revenues Impacts for the Grenfell campus of MUN by Function – All Functions



## 11.6 Summary Outputs – Federal Revenues

As shown in Table 89, Figure 148, and Figure 149, the average federal revenues linked to MUN at all of its campuses were \$92.8 million per year— 85.0% of the federal revenues (\$78.5 million) were at the St. John's campus, 8.1% of the federal revenues (\$7.5 million) were associated with the Marine Institute, 8.1% of the federal revenues (\$7.5 million) were attributable to the Grenfell campus, and 0.1% of the federal revenues (\$0.1 million) originated in Labrador.

Figure 150 and Figure 151 show that 90.4% (\$83.9 million) of these federal revenues occurred on the Avalon Peninsula. 5.7% (\$5.3 million) in the Corner Brook/Deer Lake region, 0.8% of the federal

revenues (\$0.8 million) resulted in Labrador, and 3.1% of the federal revenues (\$2.8 million) were created in the rest of NL.

The shares of federal revenues by input category for all campuses are highlighted in Figure 152. Operating expenditures generated \$38.3 million per year, representing 41.3% of the federal revenues that was connected to MUN. Federal revenues associated with having a higher educated workforce was \$36.5 million (39.3%), followed by students' expenditures and sponsored research — \$9.0 million (9.7%) and \$4.3 million (4.6%), respectively. Pensions accounted for \$2.9 million of the federal revenues (3.1%), investment in infrastructure and equipment for \$1.4 million of the federal revenues (1.5%), and visitors' expenditures were responsible for 0.4% of the federal revenues or \$0.4 million per year.

As shown in Figure 153 and Figure 154, the average federal revenues linked to MUN at its St. John's campus were \$78.5 million per year. Approximately 93.5% of the federal revenues (\$73.4 million) occurred on the Avalon Peninsula, 2.7% of the federal revenues (\$2.1 million) were found in the Corner Brook/Deer Lake region, 0.8% of the federal revenues (\$0.6 million) came through Labrador, and 3.0% of the federal revenues (\$2.4 million) originated in the rest of Newfoundland.

The shares of federal revenues by input category for the St. John's campus are highlighted in Figure 155. Operating expenditures generated \$31.4 million per year, which represented 40.0% of the federal revenues associated with the St. John's campus. Revenues due to having a higher educated workforce was 40.4% (\$31.7 million), followed by federal revenues that emanated from students' expenditures and sponsored research — \$7.6 million (9.7%) and \$3.9 (5.0%), respectively. Pensions accounted for \$2.4 million of the federal revenues (3.1%), investment in infrastructure and equipment explained \$1.1 million of the federal revenues (1.4%), and visitors' expenditures were responsible for 0.5% of the federal revenues, or \$0.4 million.

As shown in Figure 156 and Figure 157, average federal revenues linked to MUN at its Marine Institute were \$7.5 million per year. Slightly more than 95.3% of the federal revenues (\$7.2 million per year) accrued on the Avalon Peninsula, 2.0% of the federal revenues (\$0.2 million) were produced in the Corner Brook/Deer Lake region, 0.3% of the federal revenues (\$0.0 million) were found in Labrador, and 2.4% of the federal revenues (\$0.2 million) were attributable to the rest of Newfoundland and Labrador.

The shares of federal revenues by input category for the Marine Institute are highlighted in Figure 158. Operating expenditures generated \$4.3 million per year, which represented 57.3% of the federal revenues that was traced to the Marine Institute campus of MUN. Federal revenues associated with having a higher educated workforce were worth \$2.2 million (29.4%), followed by students' expenditures and sponsored research — \$0.5 million (6.7%) and \$0.3 million (4.0%), respectively. Pensions accounted for \$0.2 million of the federal revenues (2.7%), and neither investment in infrastructure and equipment or visitors' expenditures accounted for any federal revenues.

As shown in Figure 159 and Figure 160, average federal revenues linked to MUN at its Grenfell campus was \$6.3 million per year. Nearly 47.7% (\$3.0 million) of these federal revenues occurred on the Avalon Peninsula; 48.8% of the federal revenues (\$3.1 million) originated in the Corner Brook/Deer Lake region,

0.4% of the federal revenues (\$0.0 million) were found in Labrador, and 3.1% of the federal revenues (\$0.2 million) were created in the rest of Newfoundland and Labrador.

The shares of federal revenues by input category for the Grenfell campus are highlighted in Figure 161. Operating expenditures generated \$2.5 million per year, which represented 39.9% of the federal revenues generated by the Grenfell campus. Revenues associated with having a higher educated workforce were \$2.6 million (41.0%), followed by students' expenditures and sponsored research — \$0.7 million (11.2%) and \$0.0 million (0.0%), respectively. Pensions accounted for \$0.3 million of the federal revenues (4.8%), while investment in infrastructure and equipment explained \$0.2 million of the federal revenues (3.2%). Visitors' expenditures were not traced to any federal revenues.

**Table 89: Summary Output – Federal Revenues (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Federal Revenues Over 10 Years - All Campuses</b>					
Operations	\$34.00	\$3.10	\$0.30	\$0.90	\$38.30
Sponsored Research	\$4.00	\$0.20	\$0.00	\$0.10	\$4.30
Infrastructure/Equipment	\$1.00	\$0.30	\$0.00	\$0.10	\$1.40
Pensions	\$2.70	\$0.10	\$0.00	\$0.10	\$2.90
Students' Expenditures	\$7.80	\$0.80	\$0.10	\$0.30	\$9.00
Visitors' Expenditures	\$0.40	\$0.00	\$0.00	\$0.00	\$0.40
Value of Education	<b>\$33.95</b>	<b>\$0.83</b>	<b>\$0.38</b>	<b>\$1.34</b>	\$36.50
<b>Total</b>	<b>\$83.85</b>	<b>\$5.33</b>	<b>\$0.78</b>	<b>\$2.84</b>	<b>\$92.80</b>
<b>Annual Average Federal Revenues Over 10 Years – St. John's campuses</b>					
Operations	\$29.70	\$0.80	\$0.20	\$0.70	\$31.40
Sponsored Research	\$3.60	\$0.20	\$0.00	\$0.10	\$3.90
Infrastructure/Equipment	\$0.90	\$0.10	\$0.00	\$0.10	\$1.10
Pensions	\$2.20	\$0.10	\$0.00	\$0.10	\$2.40
Students' Expenditures	\$7.10	\$0.20	\$0.10	\$0.20	\$7.60
Visitors' Expenditures	\$0.40	\$0.00	\$0.00	\$0.00	\$0.40
Value of Education	<b>\$29.51</b>	<b>\$0.72</b>	<b>\$0.33</b>	<b>\$1.16</b>	\$31.72
<b>Total</b>	<b>\$73.41</b>	<b>\$2.12</b>	<b>\$0.63</b>	<b>\$2.36</b>	<b>\$78.52</b>
<b>Annual Average Federal Revenues Over 10 Years – Marine Institute campuses</b>					
Operations	\$4.10	\$0.10	\$0.00	\$0.10	\$4.30
Sponsored Research	\$0.30	\$0.00	\$0.00	\$0.00	\$0.30
Infrastructure/Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pensions	\$0.20	\$0.00	\$0.00	\$0.00	\$0.20
Students' Expenditures	\$0.50	\$0.00	\$0.00	\$0.00	\$0.50
Visitors' Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Value of Education	<b>\$2.05</b>	<b>\$0.05</b>	<b>\$0.02</b>	<b>\$0.08</b>	\$2.21
<b>Total</b>	<b>\$7.15</b>	<b>\$0.15</b>	<b>\$0.02</b>	<b>\$0.18</b>	<b>\$7.51</b>
<b>Annual Average Federal Revenues Over 10 Years - Grenfell campuses</b>					
Operations	\$0.20	\$2.20	\$0.00	\$0.10	\$2.50
Sponsored Research	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Infrastructure/Equipment	\$0.00	\$0.20	\$0.00	\$0.00	\$0.20
Pensions	\$0.30	\$0.00	\$0.00	\$0.00	\$0.30
Students' Expenditures	\$0.10	\$0.60	\$0.00	\$0.00	\$0.70
Visitors' Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Value of Education	\$2.39	\$0.06	\$0.03	\$0.09	\$2.57
<b>Total</b>	<b>\$2.99</b>	<b>\$3.06</b>	<b>\$0.03</b>	<b>\$0.19</b>	<b>\$6.27</b>
<b>Annual Average Federal Revenues Over 10 Years – Labrador Institute</b>					
Operations	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Sponsored Research	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Infrastructure/Equipment	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Pensions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Students' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Visitors' Expenditures	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Value of Education	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.1</b>

Figure 148: Federal Revenues Impacts for All Campuses of MUN by Campus – All Functions

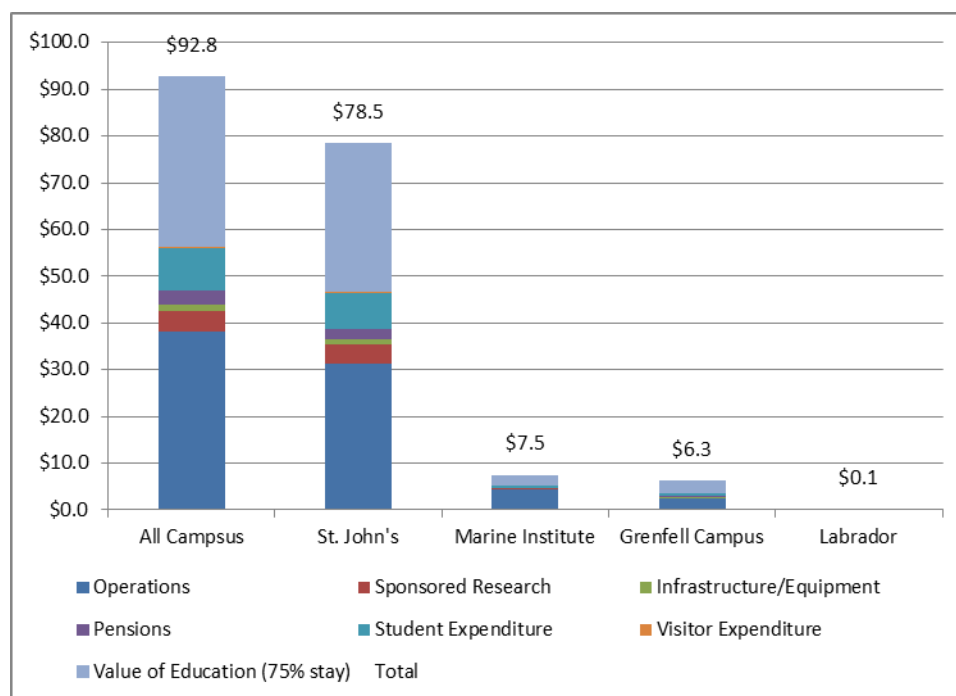


Figure 149: Share of Federal Revenues Impacts for All Campuses of MUN by Campus – All Functions

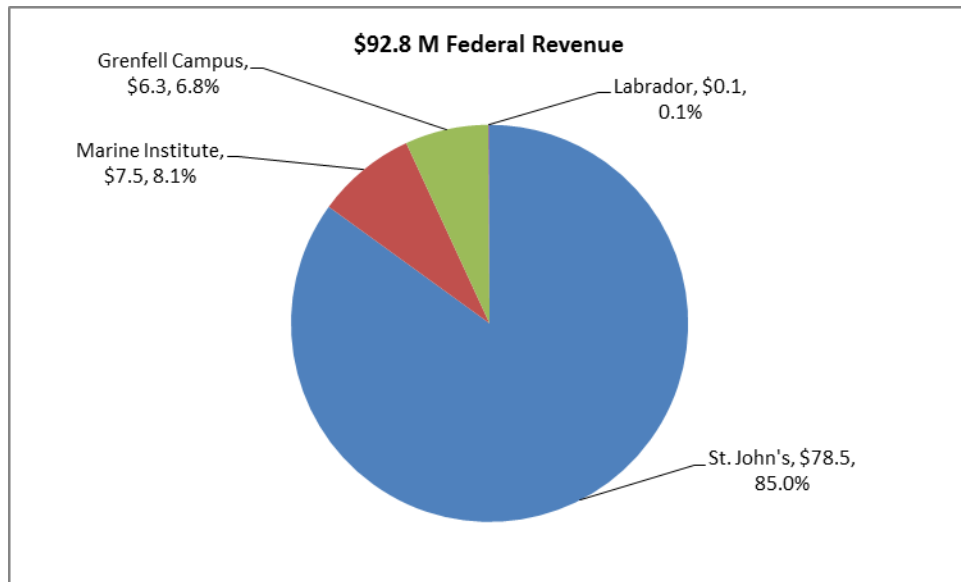


Figure 150: Federal Revenues Impacts for All Campuses of MUN by Region – All Functions

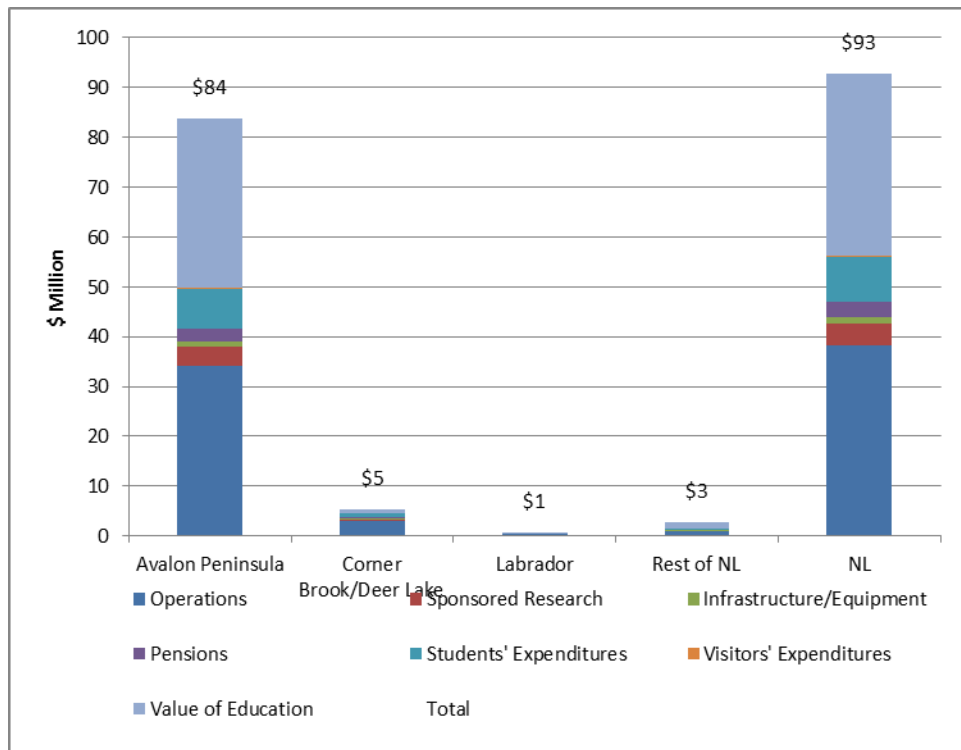




Figure 151: Share of Federal Revenues Impacts for All Campuses of MUN by Region – All Functions

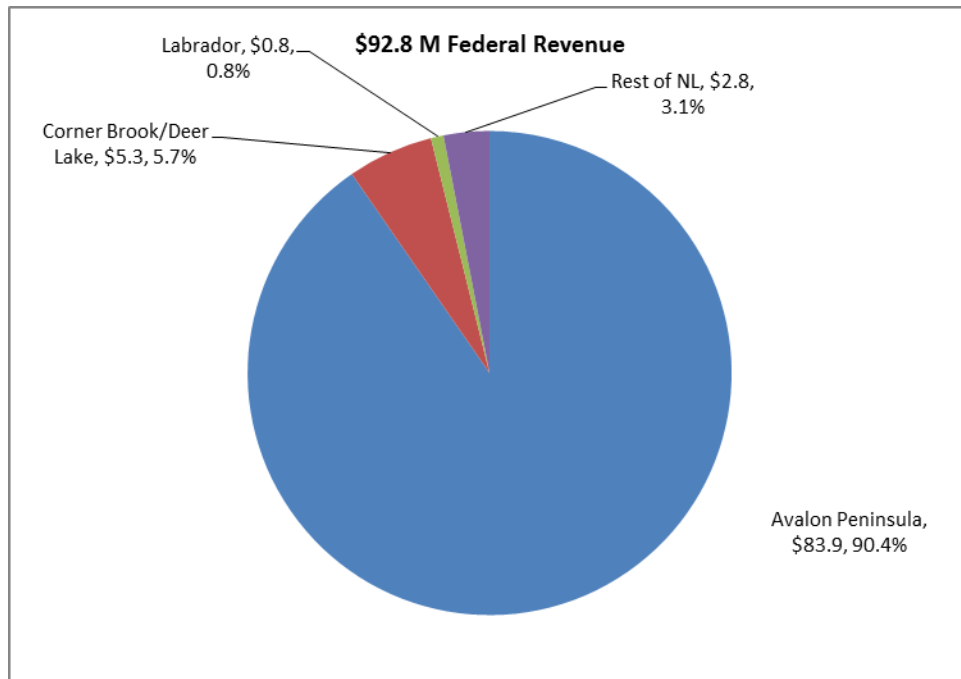


Figure 152: Share of Federal Revenues Impacts for All Campuses of MUN by Function

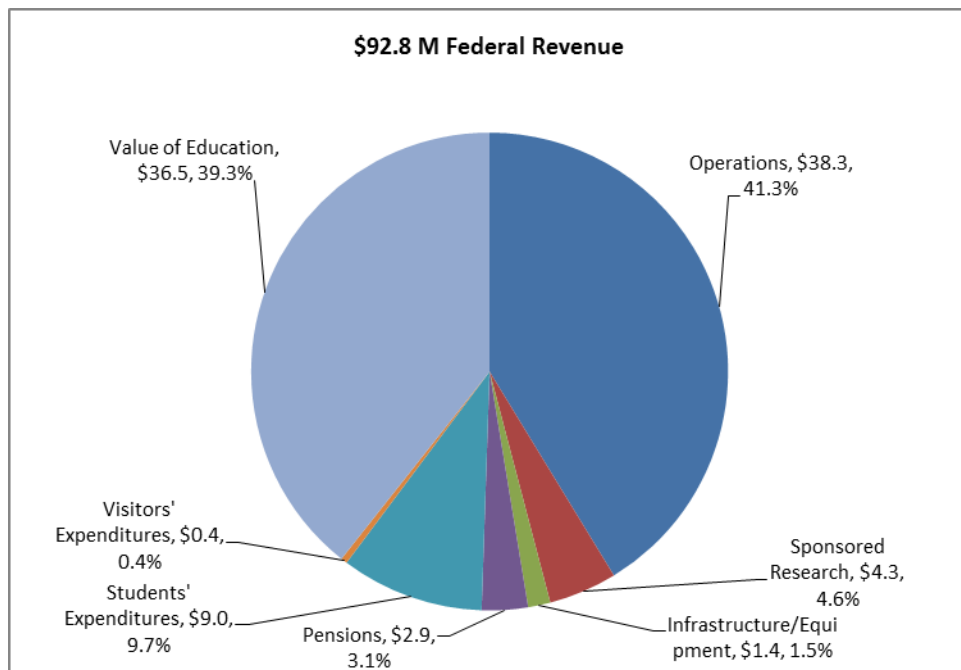


Figure 153: Federal Revenues Impacts for the St. John's Campus of MUN by Region – All Functions

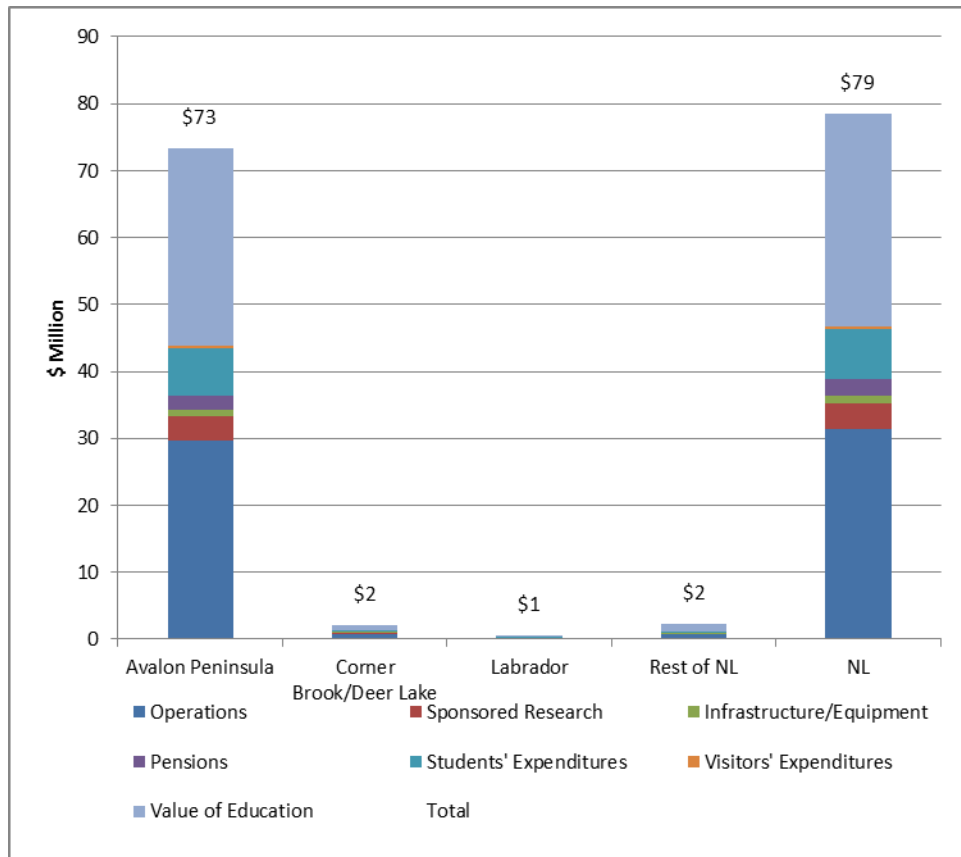


Figure 154: Share of Federal Revenues Impacts for the St. John's Campus of MUN by Region – All Functions

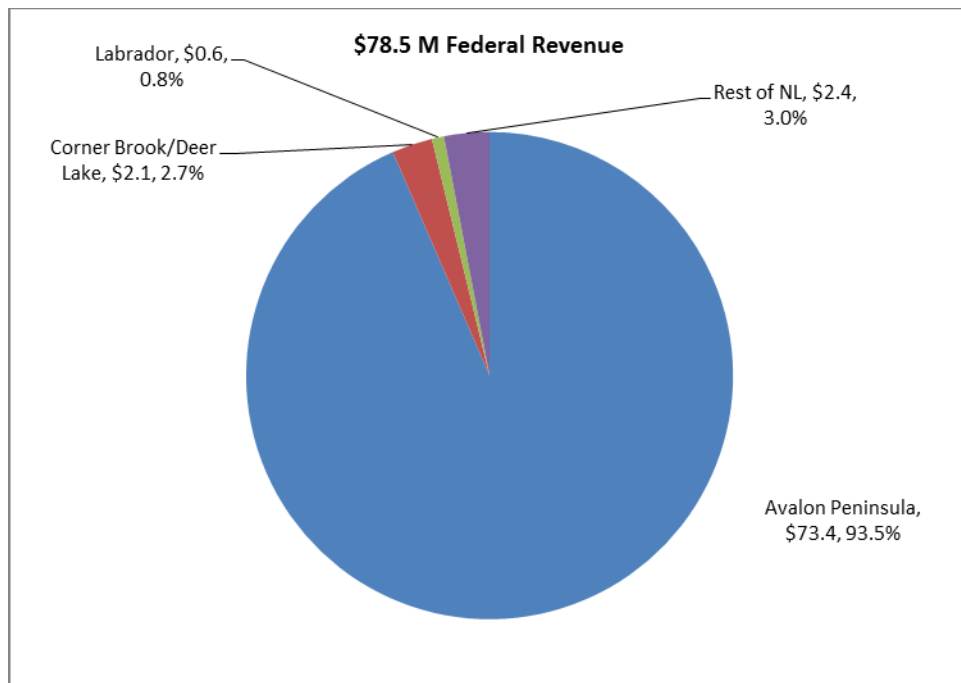


Figure 155: Share of Federal Revenues Impacts for the St. John's Campus of MUN by Function

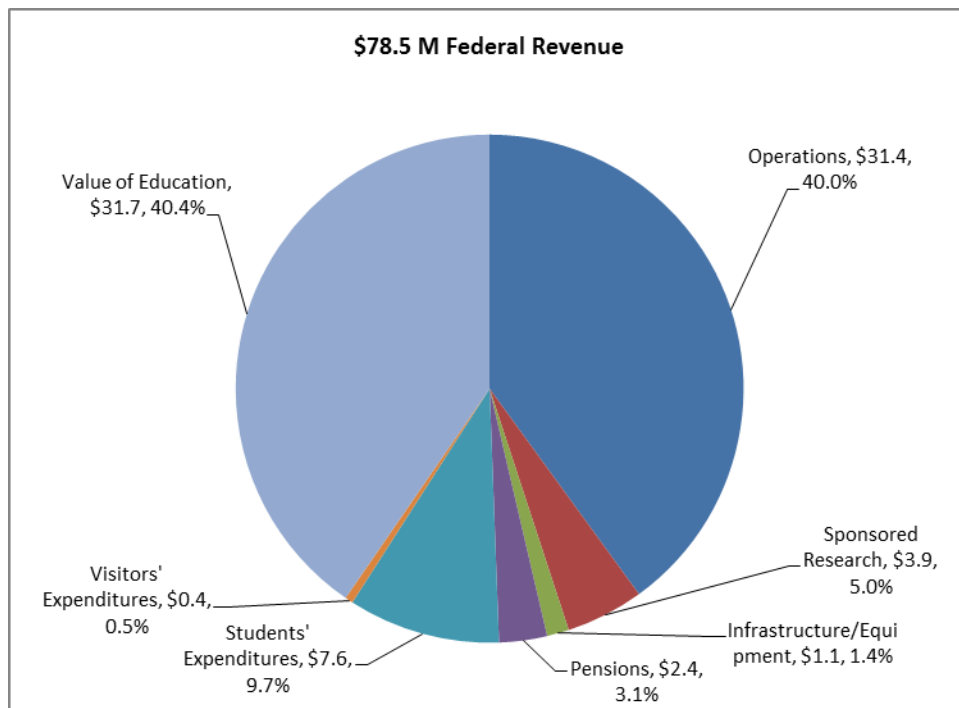


Figure 156: Federal Revenues Impacts for the Marine Institute of MUN by Region – All Functions

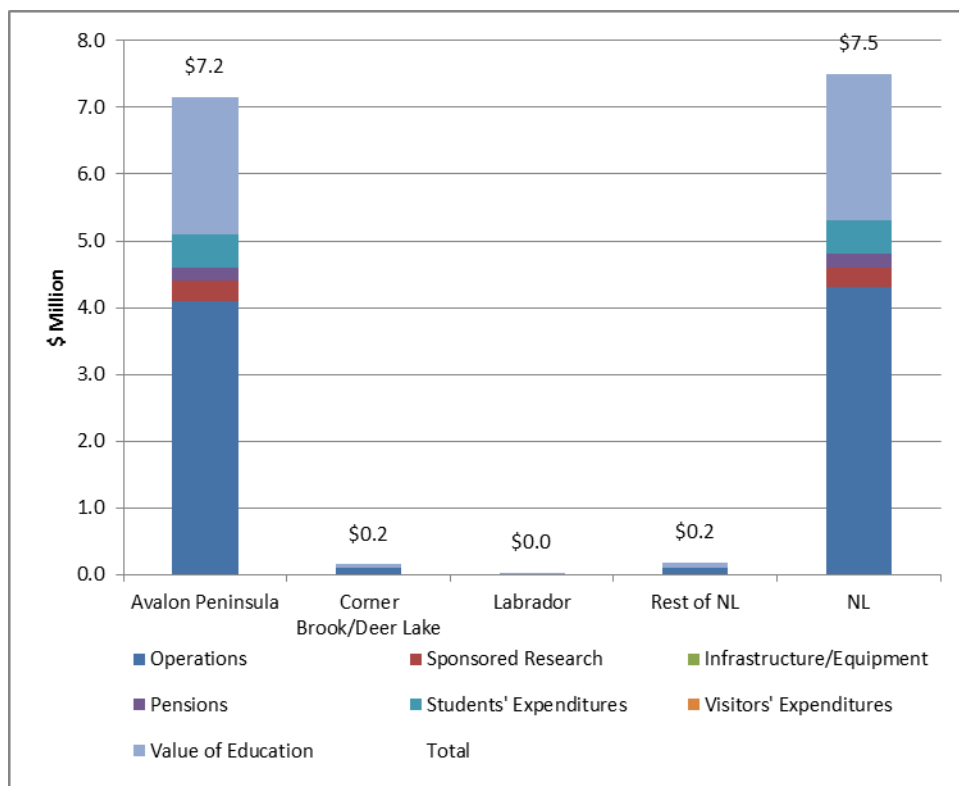


Figure 157: Share of Federal Revenues Impacts for the Marine Institute of MUN by Region – All Functions

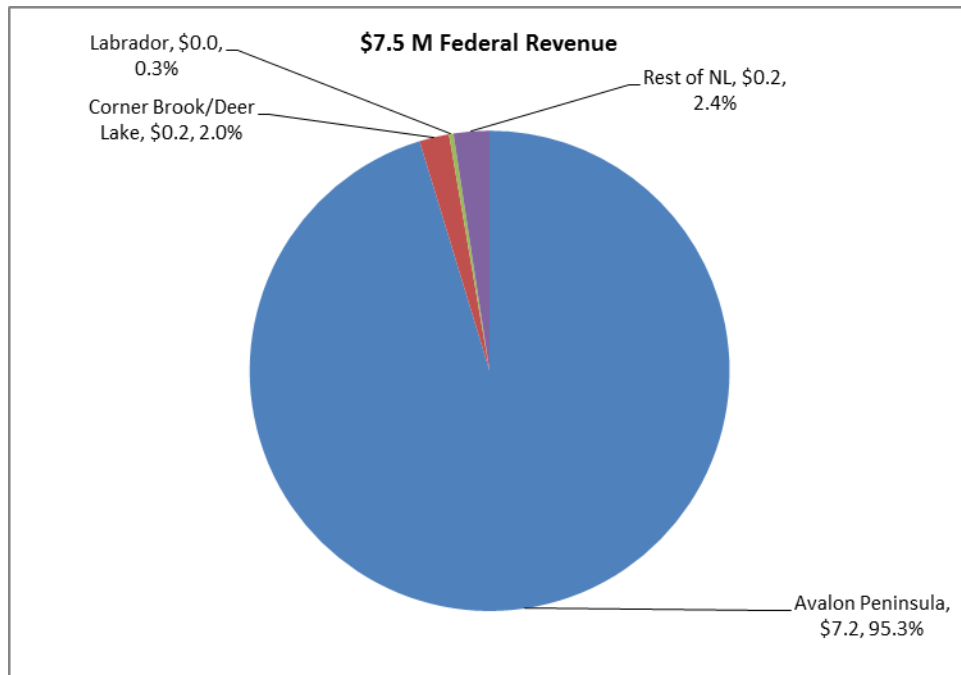


Figure 158: Share of Federal Revenues Impacts for the Marine Institute of MUN by Function

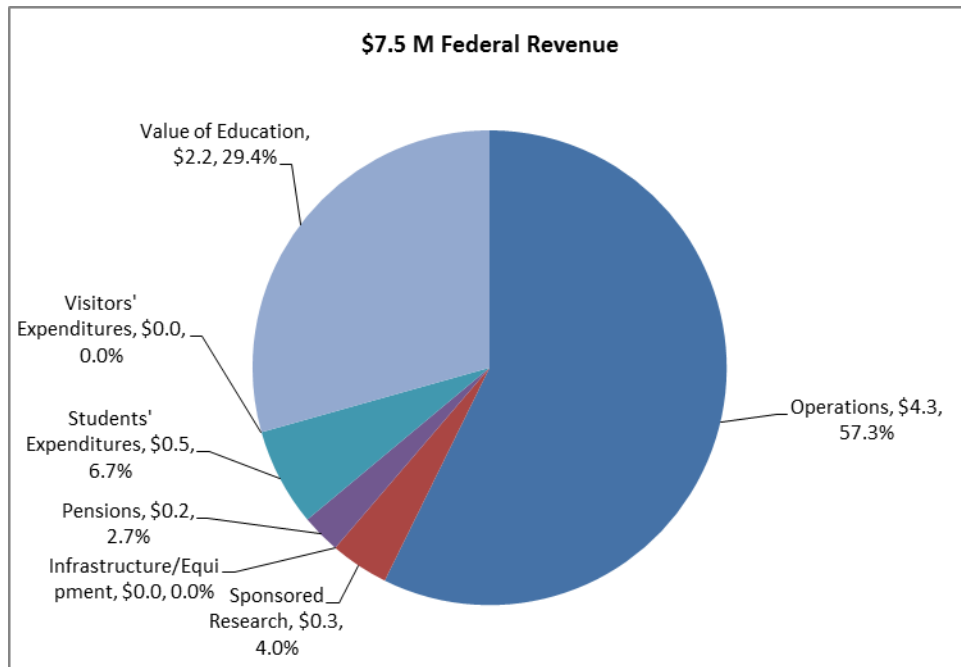


Figure 159: Federal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions

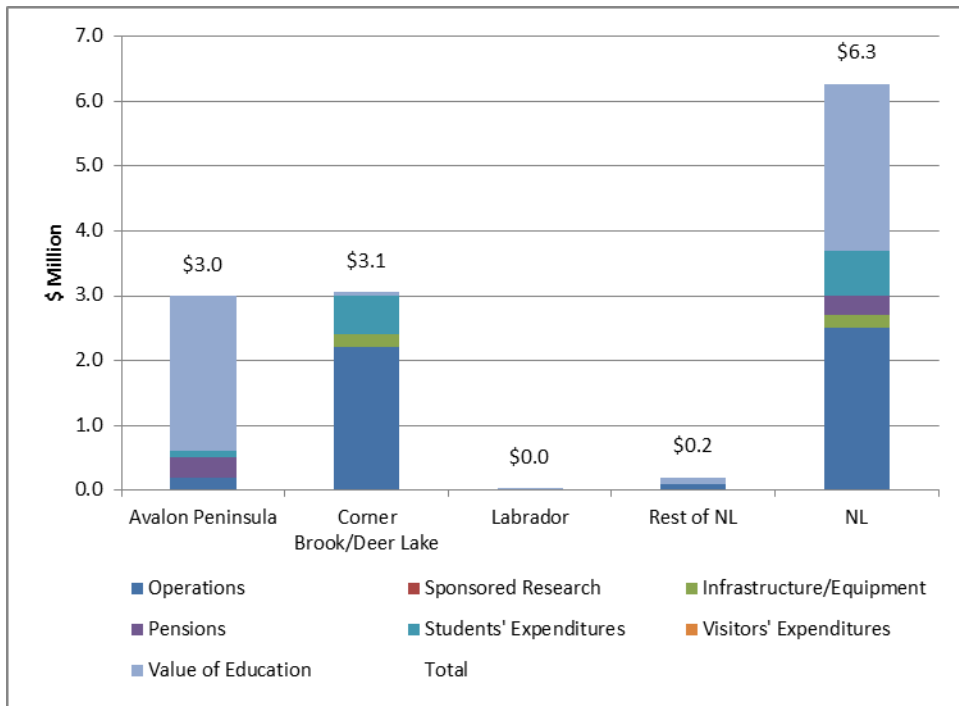


Figure 160: Share of Federal Revenues Impacts for the Grenfell campus of MUN by Region – All Functions

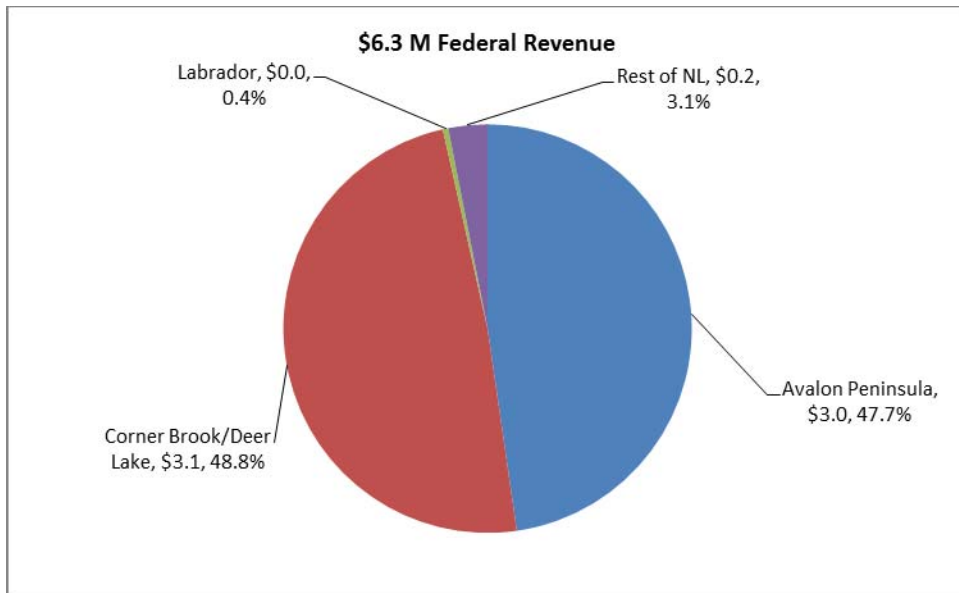
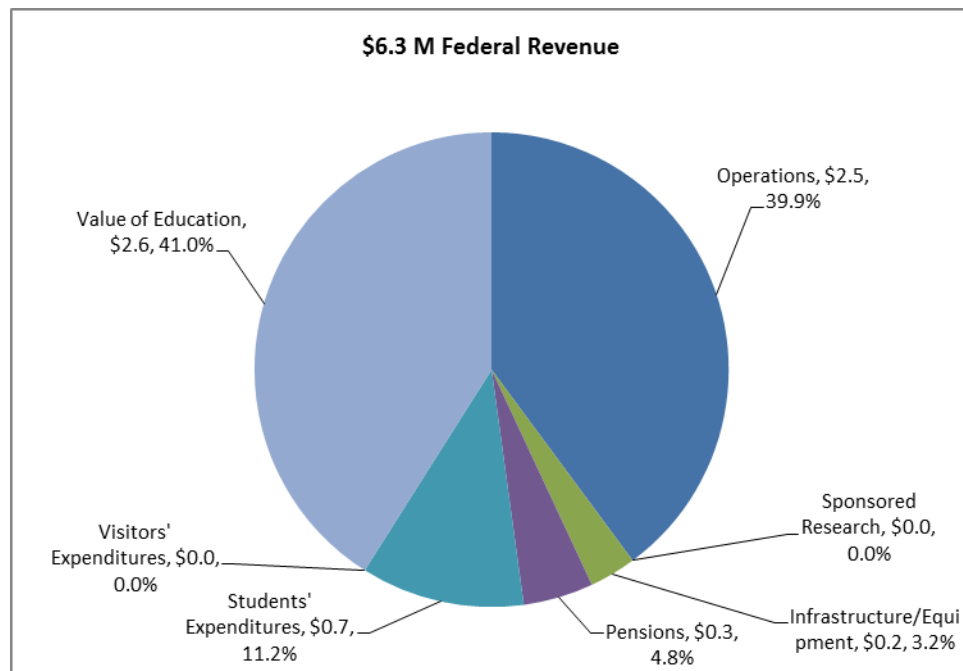


Figure 161: Share of Federal Revenues Impacts for the Grenfell campus of MUN by Function – All Functions



## 11.7 Summary Outputs – Inter-Firm Sales

As shown in Table 90, Figure 162 and Figure 163, the average inter-firm sales were associated with MUN at all of its campuses is \$2,045.9 million per year— 84.4% (\$1,725.5) at the St. John's campus; 6.9% (\$142.1 million) at the Marine Institute; 8.6% (\$176.2 million) at the Grenfell campus, and 0.1% (\$1.8 million) in Labrador.

Figure 164 and Figure 165 show that 86.1% (\$1,762.2 million per year) of these inter-firm sales occurred on the Avalon Peninsula, 7.3% (\$148.6 million) in the Corner Brook/Deer Lake region, 1.4% (\$29.5 million) in Labrador, and 5.2% (\$105.6 million) in the rest of Newfoundland.

The shares of inter-firm sales by input category for all campuses are highlighted in Figure 166.

Operating expenditures generated \$969.9 million per year, which represented 47.4% of the inter-firm sales that were connected to MUN. Inter-firm sales associated with having a higher educated workforce were associated with 30.4% of the inter-firm sales (\$622.2 million), followed by of the inter-firm sales that emanated from students' expenditures and sponsored research — \$192.9 million of the inter-firm sales (9.4%) and \$136.9 million of the inter-firm sales (6.7%), respectively. Pensions accounted for \$49.4 million of the inter-firm sales (2.4%), investment in infrastructure and equipment for \$61.8 of the inter-firm sales (3.0%), and visitors' expenditures for 0.6% of the inter-firm sales or \$12.8 million per year.

As shown in Figure 167 and Figure 168, average inter-firm sales linked to MUN at its St. John's campus were \$1,725.5 million per year. Nearly 89.7% of the inter-firm sales (\$1,548.4 million) occurred on the Avalon Peninsula, 3.8% sales (\$64.9 million) took place in the Corner Brook/Deer Lake region, 1.4% of the inter-firm sales (\$23.4 million) resulted in Labrador, and 5.1% (\$88.8 million) were attributable to the rest of Newfoundland.

The shares of inter-firm sales by input category for the St. John's campus are highlighted in Figure 169. Operating expenditures generated \$796.9 million per year, which represented 46.2% of the inter-firm sales traced to the St. John's campus of MUN. Inter-firm sales associated with having a higher educated workforce generated 31.3% of the inter-firm sales (\$540.7 million), followed by students' expenditures and sponsored research — \$163.9 million (9.9%) and \$125.2 million (7.3%), respectively. Pensions accounted for \$40.6 million of the inter-firm sales (2.4%), investment in infrastructure and equipment explained \$47.2 million of the inter-firm sales (2.7%), and visitors' expenditures were attributable for 0.6% of the inter-firm sales or \$11.0 million in inter-firm sales per year.

As shown in Figure 170 and Figure 171, average inter-firm sales linked to MUN at its Marine Institute were \$176.2 million per year. Approximately 91.1% of the inter-firm sales (\$160.4 million) occurred on the Avalon Peninsula, 3.4% of the inter-firm sales (\$6.0 million) were in the Corner Brook/Deer Lake region, 1.2% of the inter-firm sales (\$2.0 million) were found in Labrador, and 4.4% of the inter-firm sales (\$7.7 million) were attributable to the rest of Newfoundland and Labrador.

The shares of inter-firm sales by input category for the Marine Institute are highlighted in Figure 172. Operating expenditures generated \$108.7 million per year, representing 61.7% of inter-firm sales connected to the Marine Institute of MUN. The inter-firm sales associated with having a higher educated workforce were \$37.6 million (21.3%), followed by students' expenditures and sponsored research — \$12.1 (6.9%) and \$10.5 million (6.0%), respectively. Pensions accounted for \$3.2 million of the inter-firm sales (1.8%), investment in infrastructure and equipment explained \$3.5 million of the inter-firm sales (2.1%), and visitors' expenditures were responsible for 0.3% of the inter-firm sales (\$0.6 million) per year.

As shown in Figure 173 and Figure 174, average inter-firm sales linked to MUN at its Grenfell campus were \$142 million per year. Approximately 37.3% of the inter-firm sales (\$53.0 million) occurred on the Avalon Peninsula, 54.5% of the inter-firm sales (\$77.5 million) were in the Corner Brook/Deer Lake region, 1.7% of the inter-firm sales (\$2.4 million) were found in Labrador, and 6.5% of the inter-firm sales (\$9.3 million) were attributable to the rest of Newfoundland and Labrador.

The shares of inter-firm sales by input category for the Grenfell campus are highlighted in Figure 175. Operations expenditures generated \$62.5 million (44.0%) of the inter-firm sales linked to the Grenfell campus of MUN. Inter-firm sales associated with having a higher educated workforce were \$43.8 million (30.8%), which were followed students' expenditures and sponsored research — \$17.0 million (12.0%) and \$1.2 million (0.8%), respectively. Pensions accounted for \$5.5 million of the inter-firm sales (3.9%), investment in infrastructure and equipment explained \$11.2 million of the inter-firm sales (7.9%), and visitors' expenditures were accountable for 0.6% of the inter-firm sales or \$0.9 million.

**Table 90: Summary Output – Inter-Firm Sales (\$M)**

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
<b>Annual Average Inter-Firm Sales Over 10 Years - All Campuses</b>					
Operations	\$849.50	\$81.10	\$9.90	\$29.40	\$969.90
Sponsored Research	\$122.70	\$7.80	\$1.60	\$4.80	\$136.90

	Avalon Peninsula	Corner Brook/Deer Lake	Labrador	Rest of NL	NL
Infrastructure/Equipment	\$45.30	\$9.70	\$1.00	\$5.80	\$61.80
Pensions	\$42.20	\$2.30	\$1.00	\$3.90	\$49.40
Students' Expenditures	\$159.80	\$18.10	\$3.60	\$11.40	\$192.90
Visitors' Expenditures	\$10.70	\$1.10	\$0.20	\$0.80	\$12.80
Value of Education	\$532.00	\$28.47	\$12.22	\$49.47	\$622.17
<b>Total</b>	<b>\$1,762.20</b>	<b>\$148.57</b>	<b>\$29.52</b>	<b>\$105.57</b>	<b>\$2,045.87</b>
<b>Annual Average Inter-Firm Sales Over 10 Years – St. John's campuses</b>					
Operations	\$742.20	\$23.80	\$6.80	\$24.10	\$796.90
Sponsored Research	\$113.00	\$6.30	\$1.50	\$4.40	\$125.20
Infrastructure/Equipment	\$40.60	\$1.80	\$0.80	\$4.00	\$47.20
Pensions	\$34.70	\$1.90	\$0.80	\$3.20	\$40.60
Students' Expenditures	\$145.60	\$6.10	\$2.80	\$9.40	\$163.90
Visitors' Expenditures	\$9.90	\$0.30	\$0.10	\$0.70	\$11.00
Value of Education	\$462.36	\$24.75	\$10.62	\$43.00	\$540.73
<b>Total</b>	<b>\$1,548.36</b>	<b>\$64.95</b>	<b>\$23.42</b>	<b>\$88.80</b>	<b>\$1,725.53</b>
<b>Annual Average Inter-Firm Sales Over 10 Years – Marine Institute campuses</b>					
Operations	\$101.50	\$3.20	\$0.90	\$3.10	\$108.70
Sponsored Research	\$9.50	\$0.50	\$0.10	\$0.40	\$10.50
Infrastructure/Equipment	\$3.20	\$0.10	\$0.00	\$0.20	\$3.50
Pensions	\$2.70	\$0.10	\$0.10	\$0.30	\$3.20
Students' Expenditures	\$10.80	\$0.40	\$0.20	\$0.70	\$12.10
Visitors' Expenditures	\$0.60	\$0.00	\$0.00	\$0.00	\$0.60
Value of Education	\$32.14	\$1.72	\$0.74	\$2.99	\$37.59
<b>Total</b>	<b>\$160.44</b>	<b>\$6.02</b>	<b>\$2.04</b>	<b>\$7.69</b>	<b>\$176.19</b>
<b>Annual Average Inter-Firm Sales Over 10 Years - Grenfell campuses</b>					
Operations	\$5.60	\$54.10	\$0.60	\$2.20	\$62.50
Sponsored Research	\$0.20	\$1.00	\$0.00	\$0.00	\$1.20
Infrastructure/Equipment	\$1.50	\$7.80	\$0.20	\$1.70	\$11.20
Pensions	\$4.70	\$0.30	\$0.10	\$0.40	\$5.50
Students' Expenditures	\$3.40	\$11.60	\$0.60	\$1.40	\$17.00
Visitors' Expenditures	\$0.10	\$0.70	\$0.00	\$0.10	\$0.90
Value of Education	\$37.49	\$2.01	\$0.86	\$3.49	\$43.84
<b>Total</b>	<b>\$52.99</b>	<b>\$77.51</b>	<b>\$2.36</b>	<b>\$9.29</b>	<b>\$142.14</b>
<b>Annual Average Inter-Firm Sales Over 10 Years – Labrador Institute</b>					
Operations	\$0.20	\$0.00	\$1.50	\$0.10	\$1.80
Sponsored Research	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Infrastructure/Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pensions	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Students' Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Visitors' Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Value of Education	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	\$0.00
<b>Total</b>	<b>\$0.20</b>	<b>\$0.00</b>	<b>\$1.50</b>	<b>\$0.10</b>	<b>\$1.80</b>



Figure 162: Inter-Firm Sales Impacts for All Campuses of MUN by Campus – All Functions

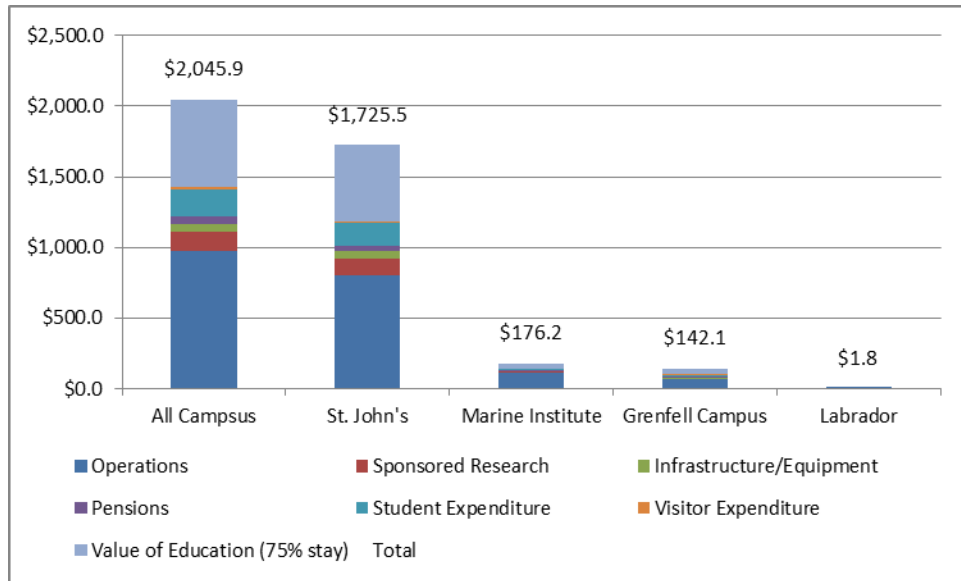


Figure 163: Share of Inter-Firm Sales Impacts for All Campuses of MUN by Campus – All Functions

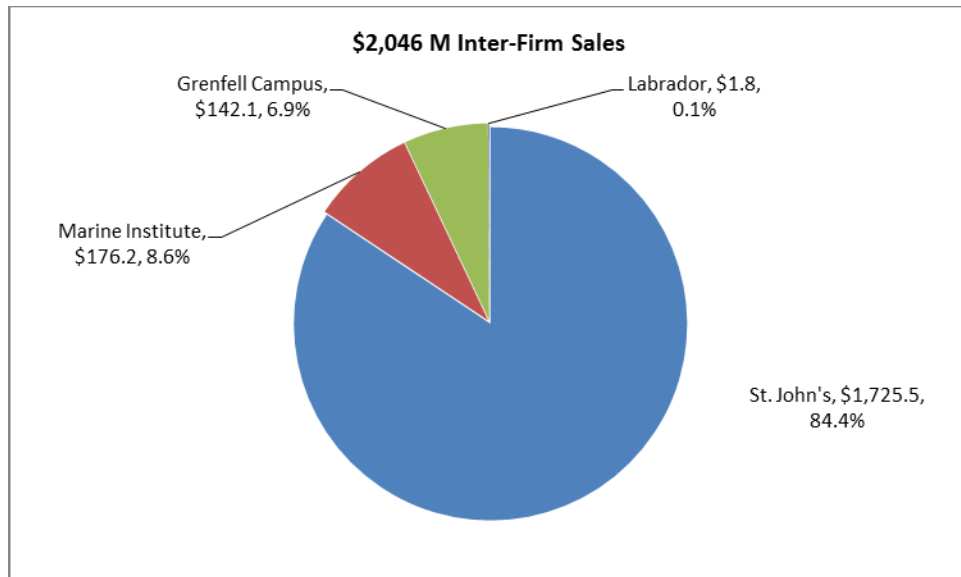


Figure 164: Inter-Firm Sales Impacts for All Campuses of MUN by Region – All Functions

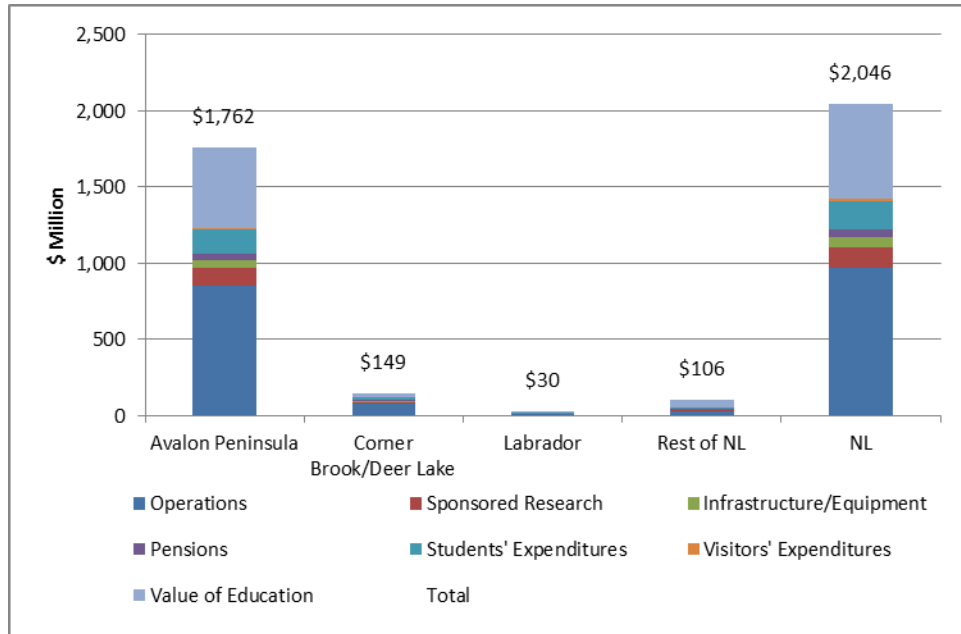


Figure 165: Share of Inter-Firm Sales Impacts for All Campus of MUN by Region – All Functions

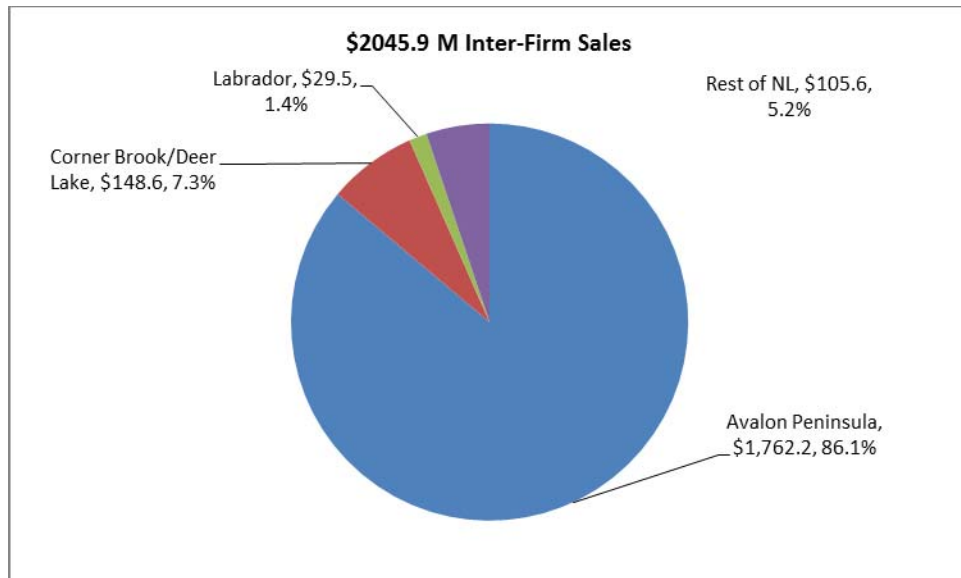


Figure 166: Share of Inter-Firm Sales Impacts for All Campus of MUN by Function

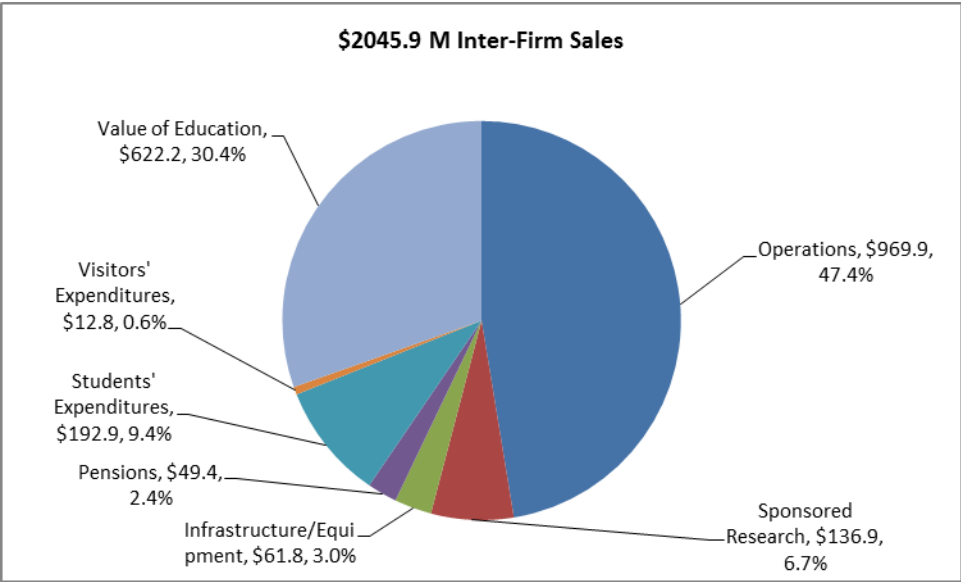


Figure 167: Inter-Firm Sales Impacts for the St. John's Campus of MUN by Region – All Functions

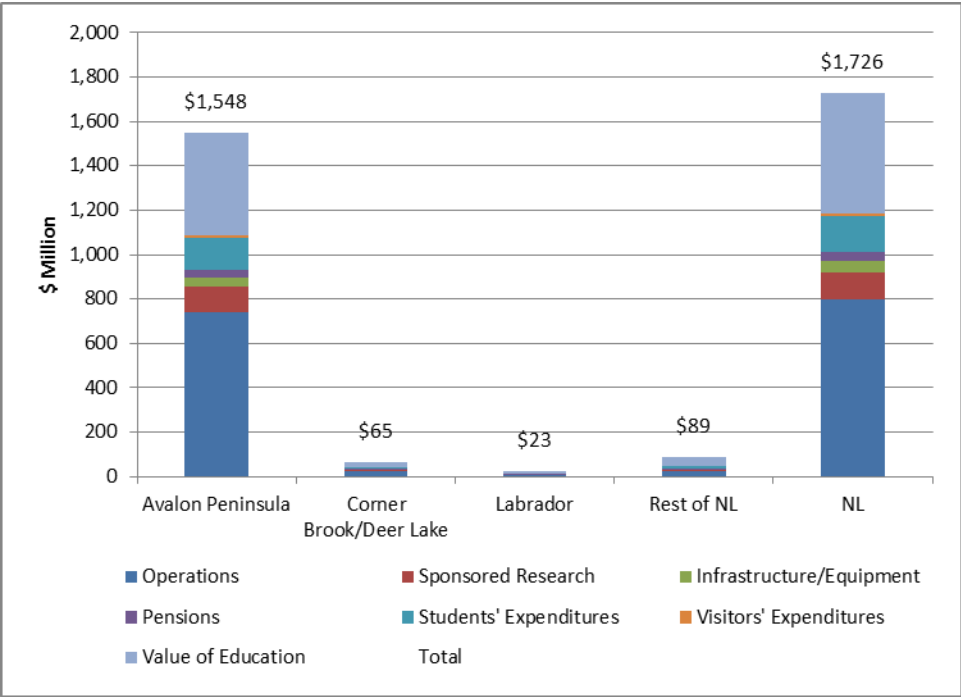


Figure 168: Share of Inter-Firm Sales Impacts for the St. John's Campus of MUN by Region – All Functions

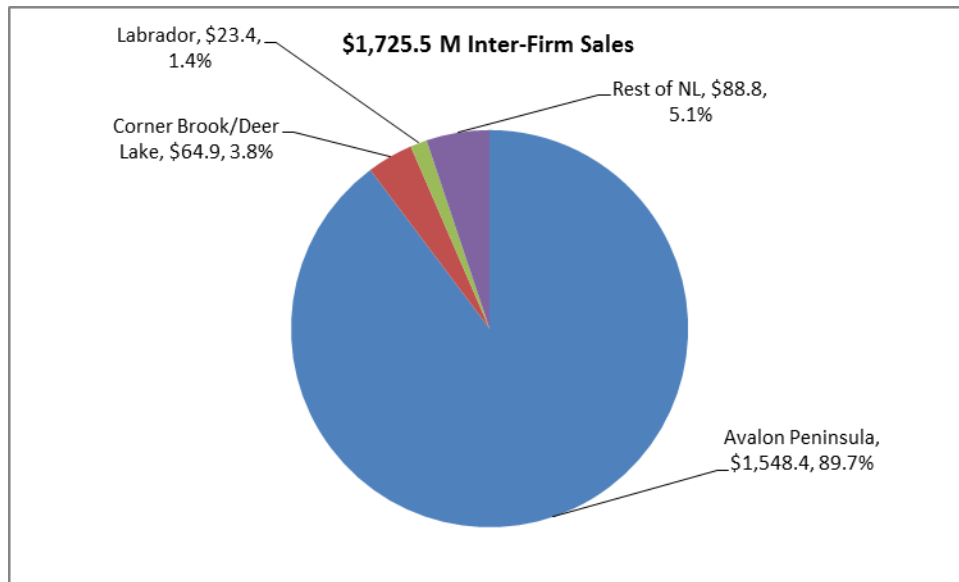


Figure 169: Share of Inter-Firm Sales Impacts for the St. John's Campus of MUN by Function

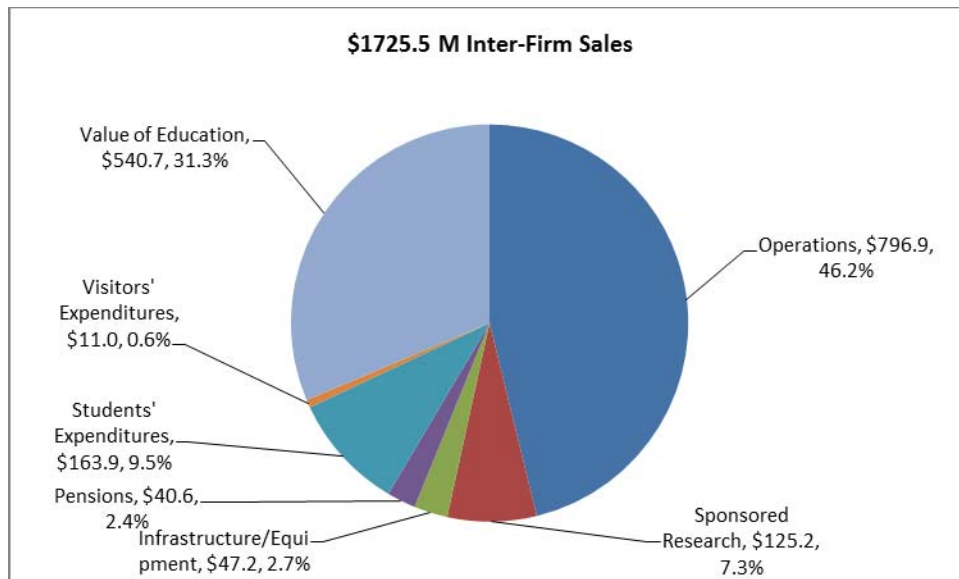


Figure 170: Inter-Firm Sales Impacts for the Marine Institute of MUN by Region – All Functions

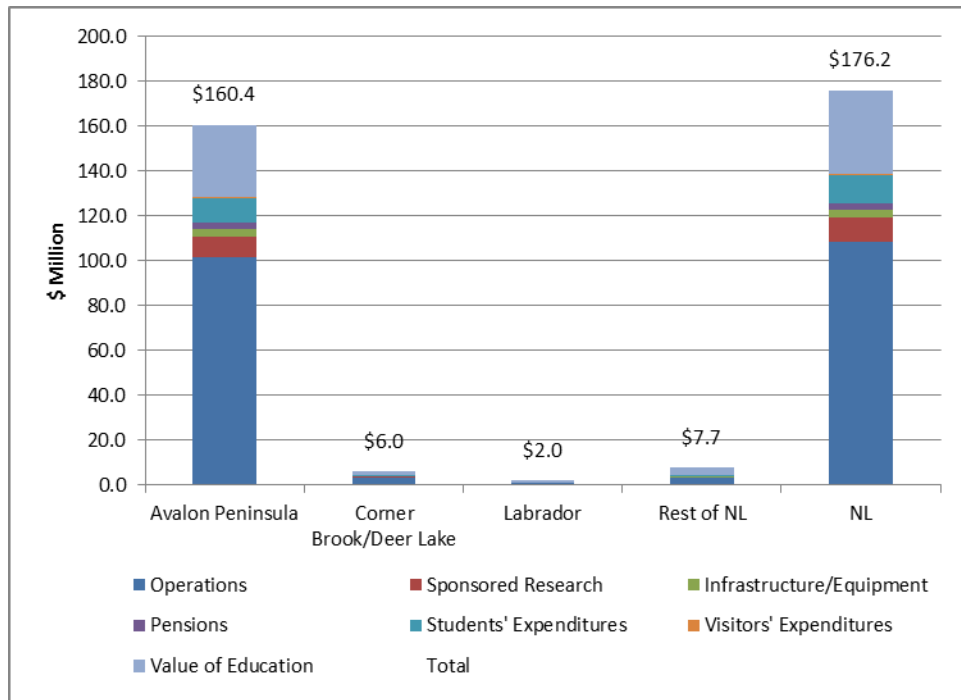


Figure 171: Share of Inter-Firm Sales Impacts for the Marine Institute of MUN by Region – All Functions

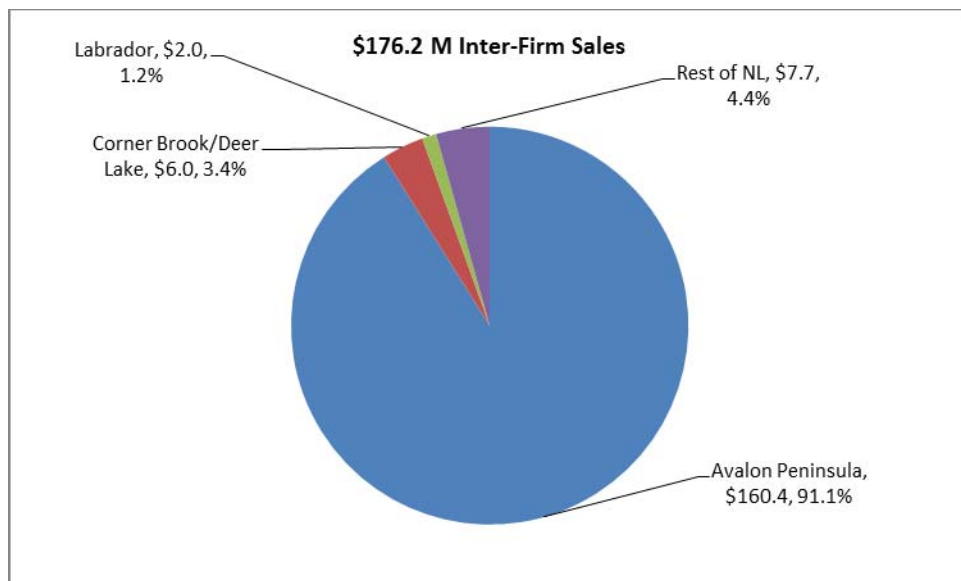


Figure 172: Share of Inter-Firm Sales Impacts for the Marine Institute of MUN by Function

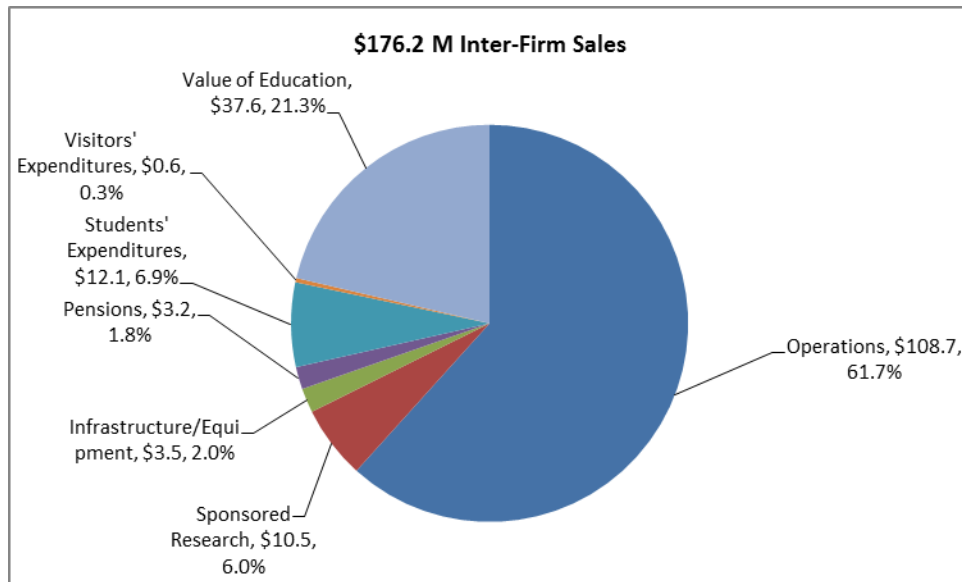


Figure 173: Inter-Firm Sales Impacts for the Grenfell campus of MUN by Region – All Functions

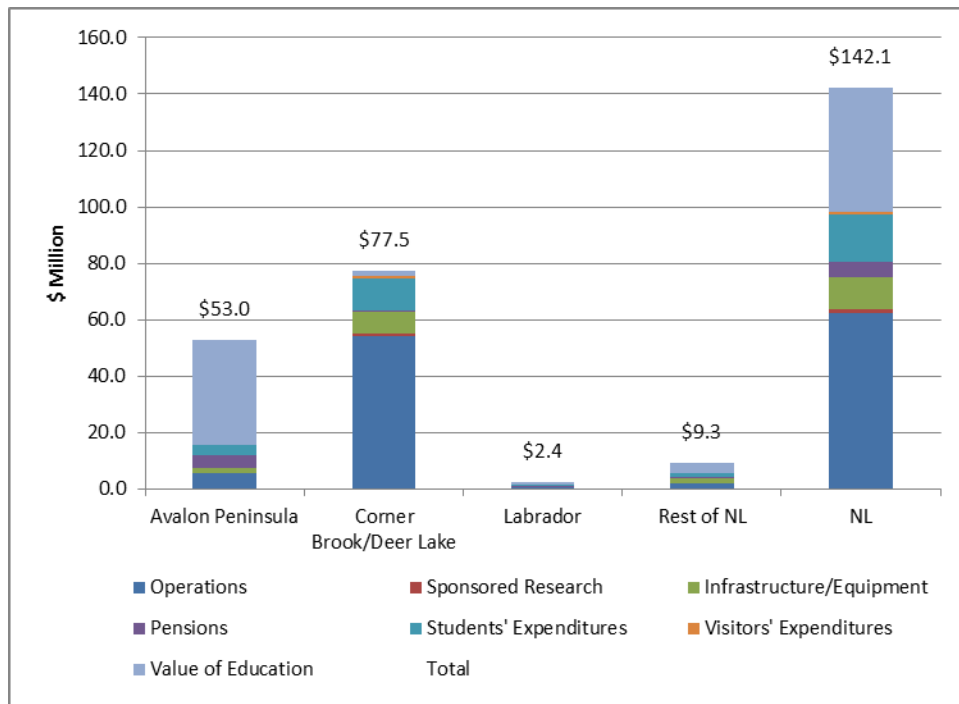


Figure 174: Share of Inter-Firm Sales Impacts for the Grenfell campus of MUN by Region – All Functions

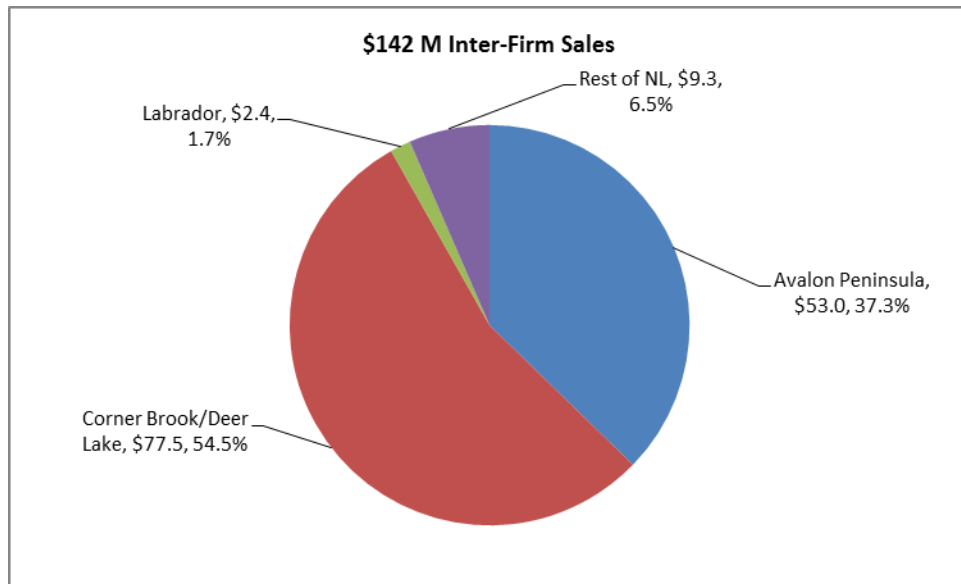
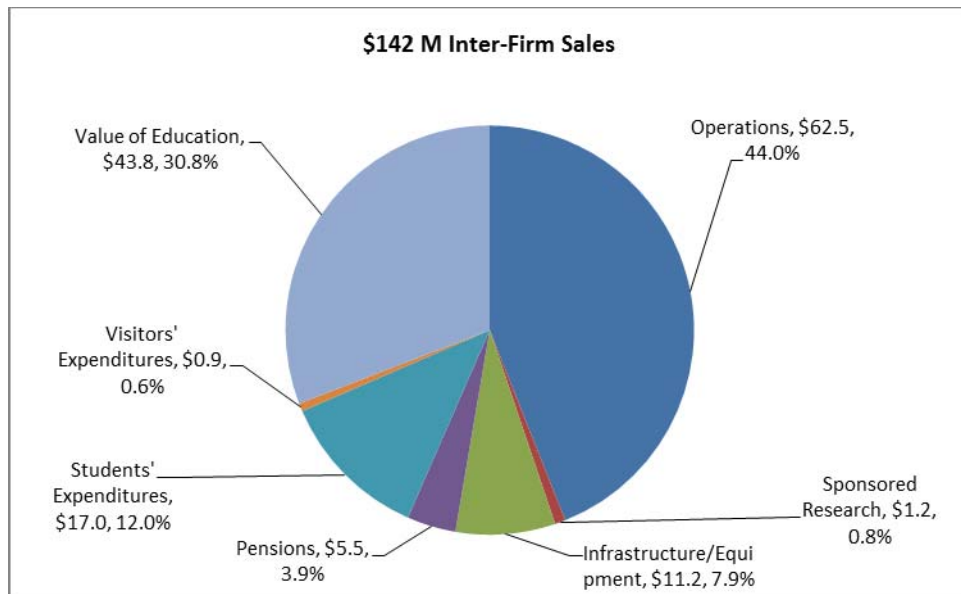


Figure 175: Share of Inter-Firm Sales Impacts for the Grenfell campus of MUN by Function – All Functions



## 12.0 Conclusion

The input-output analysis presented above was performed by the Collaborative Applied Research in Economics (CARE) initiative and was commissioned by the Office of Public Engagement, Memorial University. This analysis demonstrates that Memorial University has had, and continues to have, a significant and substantial economic impact on the province of Newfoundland and Labrador. While the success of the university is tied to the success of the province, the opposite is also true. Specifically, the current prosperity being experienced by the province of Newfoundland and Labrador has been enhanced, facilitated, and enabled by the activities of Memorial University.

From a high level perspective, the economic impacts estimated for Memorial University are:

- On an average annual basis for the past ten years, Memorial University expenditures, research and education efforts have generated 11,160 full-time-equivalent jobs per year in Newfoundland and Labrador. This represented 5.6% of the 198.9 thousand full-time jobs reported in province in 2013;
- Over this same time period, Memorial University's activities can be linked to \$566 million in salaries and benefits per year that were paid to Newfoundland and Labrador workers. This was equivalent to 4.2% of the \$13,458 million in total labour income reported for the province in 2013;
- On an average annual basis, the activities of Memorial University account for \$1,033 million in provincial GDP. This represented 3.1% of the \$33.8 billion in provincial GDP reported for 2012;
- Another important source of local economic impact created by Memorial University is its impact on local government revenues. The activities of Memorial University accounted for \$24.0 million per year in municipal revenues, of which approximately \$22.2 million accrues to local governments on the Avalon Peninsula and primarily to the City of St. John's. This is equivalent to approximately 11.4% of the City's taxation and own-source revenue that was approved in the 2013 Budget for the City of St. John's;
- Memorial University's activities, directly or indirectly, accounted for \$139 million in provincial government revenue. This corresponded to 3.0% of the revenues, net of offshore royalties, reported for the provincial government in its 2014 budget;
- The university was linked to \$93 million in federal government revenues annually; and
- Memorial University's activities were associated with generating \$2.0 billion in inter-firm sales within the province on an annual basis.