
An
Economic
Impact
Analysis of
the New
Regional
Performing
Arts Centre
in
Fredericton

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EXECUTIVE SUMMARY

The present report gives the results of the economic impact of the new performing arts centre located in Fredericton, New Brunswick. It uses an input-output model to estimate the impact of the of the expenditures of patrons and clients¹ to the new facility while in the Fredericton region (excluding the cost of admission or for goods and services purchased, to avoid double counting when these are taken into account in the operations expenditures), construction expenditures of the proposed new building (including land purchase and demolition of the old building), as well as of the projected operations of the new facility for 2017-18.

Results are sometimes presented for all of New Brunswick's counties, although mostly only for York as impacts in other counties were less important, the province as a whole and for the rest of Canada. Variables analyzed are increased sales, contribution to the gross domestic product (GDP), employment (in full time equivalent positions) and government revenues.

The summary of the economic impact are presented in Tables 1 to 4. The total economic impact is significant, both inside and outside the province. Table 1 focuses on recurring impacts, resulting from operations expenditures and from patrons and clients expenditures. In Table 2, we present the summary of the impact of the construction of the facility, which will not be recurring.

In Table 1, in addition to the result of our analysis which focuses on the economic impact of expenditures linked to the presence of the new Fredericton performing arts centre, we present the HST revenues from operations. Revenues are not directly included in our analysis, as it would be double counting since those revenues translate into expenditures through salaries, purchases, etc. This is not the case for HST revenues which are simply transferred to the provincial and federal governments. Consequently, we add these to government revenues resulting from the various expenditure category.

Note that the federal government will receive more than 600 thousand dollars per year in recurring revenues. For the New Brunswick government, it is nearly 700 thousand dollars in recurring revenues that it will receive.

¹ In our analysis, we combine the impact of patrons and clients. These are distinct categories, where patrons purchase tickets and attend events as consumers while clients pertain to organizations and groups who rent the facility to stage their events.

Table 1: Total Economic Impact of the new Fredericton performing arts centre: Annual recurring impact: Patrons and Clients and Operations + HST from Box Office²

	NB	Outside NB	Total
Sales (\$)	\$10 343 072	\$5 244 255	\$15 567 327
Employment (FTE)	77.2	24.4	101.6
GDP (\$)	\$4 195 899	\$2 120 763	\$6 316 662
Gvt Revenues			
Federal (\$) from expenditures			\$408 845
Federal HST (\$) from operations			\$202 568
Federal (\$) Total			\$611 413
Provincial (\$) from expenditures			\$373 383
Provincial HST (\$) from operations			\$324 110
Provincial (\$) Total			\$697 493

Table 2: Total Economic Impact of the new Fredericton performing arts centre: Construction

	NB	Outside NB	Total
Sales (\$)	\$95 045 309	\$46 234 272	\$141 279 581
Employment (FTE)	511.2	203.5	714.7
GDP (\$)	\$40 237 955	\$18 104 627	\$58 342 582
Gvt Revenues			
Federal (\$)			\$4 904 426
NB Gvt (\$)			\$3 906 839

² HST from operations added in Table 1 as it is not part of the economic impact analysis which focuses exclusively on the impact of expenditures and consequently does not include revenues from operations as adding this would be double counting as these revenues are, in part, the source of expenditures we measure.

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INTRODUCTION

This study presents an economic impact of the new Fredericton performing arts centre. After having presented our methodology, we first present the impacts of the construction of the new proposed centre, including land purchase and the demolition of the old building. This is followed by the presentation of the impacts of the projected operations expenditure for the year 2017-18. This is followed by the presentation of the impact of the expenditures of patrons and clients. Finally, we present the total impact, adding the impacts of the three selected components.

The analysis includes direct, indirect and induced impacts. The direct impact is directly generated by the activity studied. As for indirect and induced impacts, they are combined in the present analysis, and presented as “indirect impacts”. These represent the impacts, once the initial – or direct – impact has been made. For example, the salary received by a construction worker is a direct impact, while the expenditure by that worker, at the local grocery store, for repairs to his truck or for a trip to Florida would be considered indirect and induced impacts.

The study focuses on four variables. The first is sales generated. This can be interpreted as the purchase of a good or a service and represents the cost of paying for this good or service. The second category represents employment, measured in full time equivalent (FTE). For example, 4 persons each working 13 weeks, for a total of 52 weeks, represent a FTE. The third category is the contribution to the gross domestic product (GDP). GDP measures production, and is different from sales. For example, a carpenter who purchases \$40 of wood to produce a chair which he sells \$100 has contributed \$60 to the GDP, the difference between the cost of his inputs and the value of his output. Finally, the analysis estimates total government revenues for the federal government, the New Brunswick government and other provincial governments.

1. METHODOLOGY

The objective of the study is to quantify the total economic impact of the proposed new facility. As indicated in the previous section, the total economic impact includes direct, indirect and induced impacts. The latter are combined and presented as “indirect impacts”.

An analysis like this one can only be done using a proven economic model, in this case an input-output model. The principle behind the input-output model is essentially to “follow the money path.” For example, widgets used by a plant will be purchased from another plant, which in turn may offer its employees more work which in turn will increase their expenditures, leading them to pay more taxes, etc. The input-output model incorporates all these components. The model is also augmented by a number of econometric modules which are used to make the model more accurate. For the input-output analysis, data was supplied by the Fredericton Playhouse.

An important characteristic of the input-output model used is that it reflects the specificities of the New Brunswick economy, rather than applying national characteristics to the province’s economy. This means that we do not simply use multipliers for the sector based on national averages. We thus input in the model detailed expenditures and use the input-output model to estimate the impact based on the true characteristics of New Brunswick’s economy. Furthermore, results are available on a county basis.

We have had to make assumptions with respect to the expenditures of patrons and clients. We have made conservative estimates. We also estimated that the distribution of these patrons and clients (local, elsewhere in New Brunswick and outside New Brunswick) would remain the same. Note that the impact of the expenditures of local patrons and clients only include implicitly the expenditures directly linked to assisting at events at the

new facility, as expenditures for meals, for example, would take place whether a local patron attended the event or not.

Finally, we need to advise the reader that such an analysis aims to present a relatively accurate picture of the situation but one should always be reminded that the results should be interpreted with caution: they probably do not offer an “exact” measure of the impacts, but rather an “acceptable approximation”. We are very confident that the present study is no exception and that it does present a very good measure of the economic impact of the new Fredericton performing arts centre.

2. CONSTRUCTION

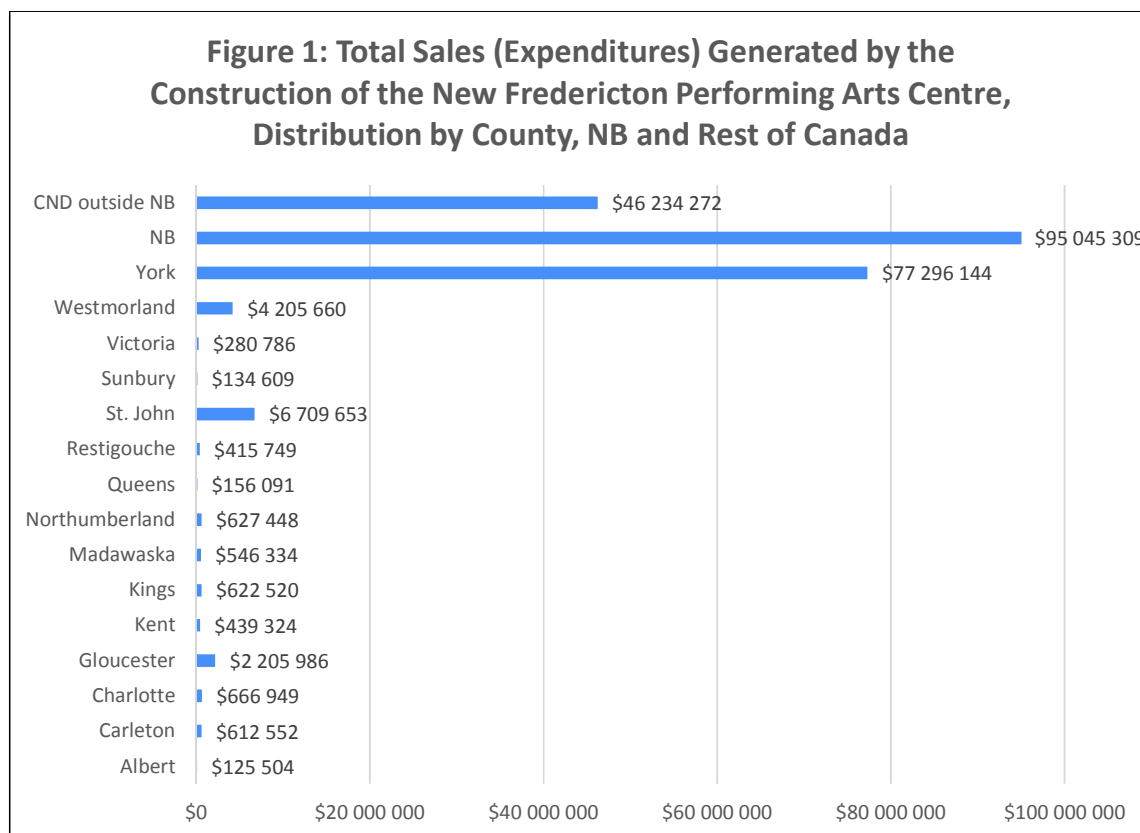
2.1. SALES (EXPENDITURES) GENERATED

Sales generated by the construction of the proposed new Fredericton performing arts centre will total more than 141 million dollars³ (Table 3). The direct sales will be 42.7 million dollars. Indirect sales will be worth 52.4 million dollars in New Brunswick and an additional 46.2 million dollars of sales in provinces other than New Brunswick.

	NB	CND Outside NB	Total
Direct	\$42 655 948	\$0	\$42 655 948
Indirect	\$52 389 361	\$46 234 272	\$98 623 633
Total	\$95 045 309	\$46 234 272	\$141 279 581

Focusing on where more precisely will take place the impact of the construction expenditures of on sales, we find (Figure 1) that a total of more than 77 million dollars will take place in York county. Nevertheless, other regions of the province benefit in additional sales. The total impact in other counties is nearly 18 million dollars.

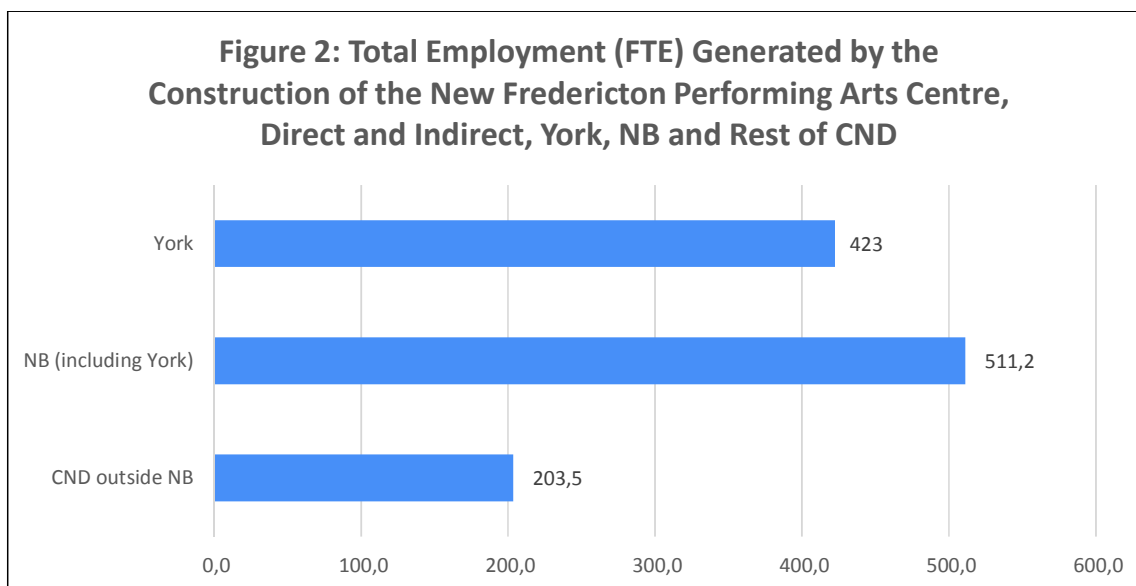
³ Please see appendix A for details of sales (expenditures) generated by the construction of the New Fredericton performing arts centre.



2.2. EMPLOYMENT

Table 4: Employment Generated (Full Time Equivalent) by the Construction of the new Fredericton performing arts centre, Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	311.5	0	311.5
Indirect	199.7	203.5	403.2
Total	511.2	203.5	714.7



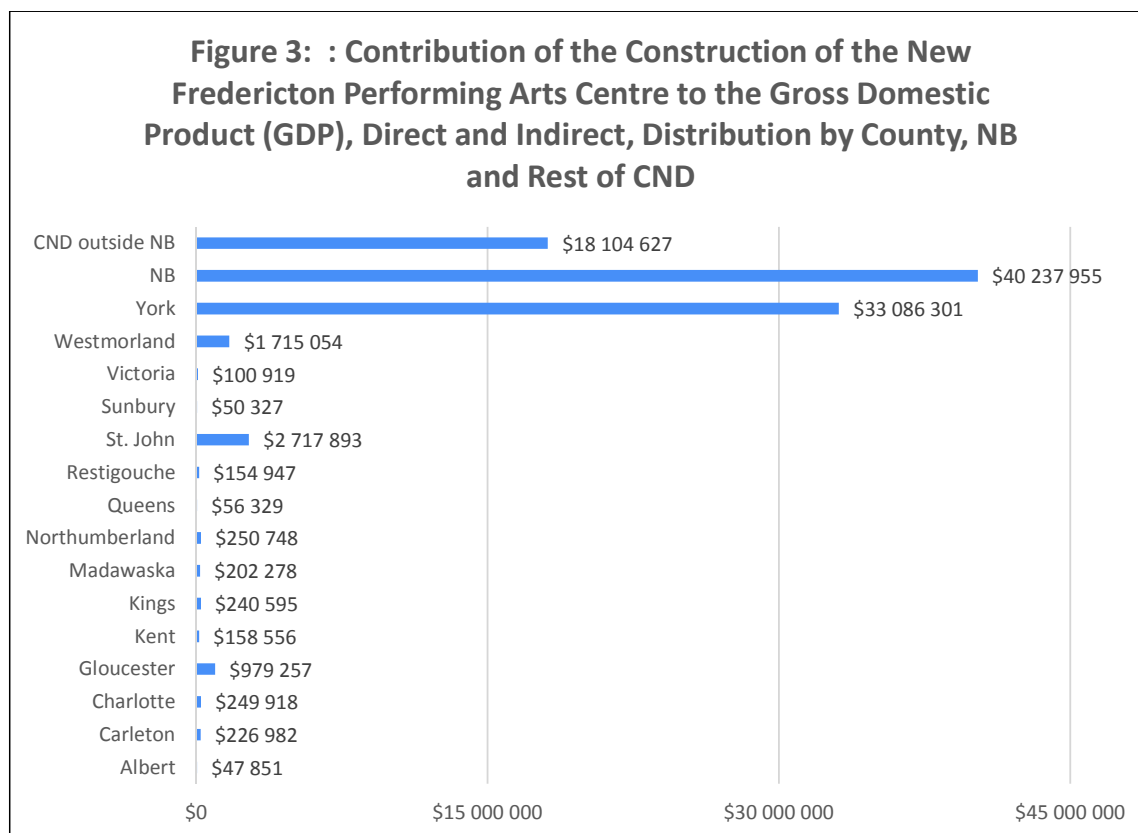
Turning our attention to employment creation (Table 4, Figure 2), it is estimated that the total impact of construction expenditures will be 714.7 full time equivalent (FTE)⁴. 423 FTE positions will be directly created in York county, and a further 88.2 FTE positions will be created in New Brunswick as a result of indirect impacts. 203.5 FTE positions will also be created indirectly in other provinces.

2.3. GROSS DOMESTIC PRODUCT

Table 5: Contribution of the Construction of the new Fredericton performing arts centre to the Gross Domestic Product (GDP), Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	\$22 793 001	\$0	\$22 793 001
Indirect	\$17 444 954	\$18 104 627	\$35 549 581
Total	\$40 237 955	\$18 104 627	\$58 342 582

⁴ Please see appendix B for details of employment creation from the construction of the New Fredericton performing arts centre.

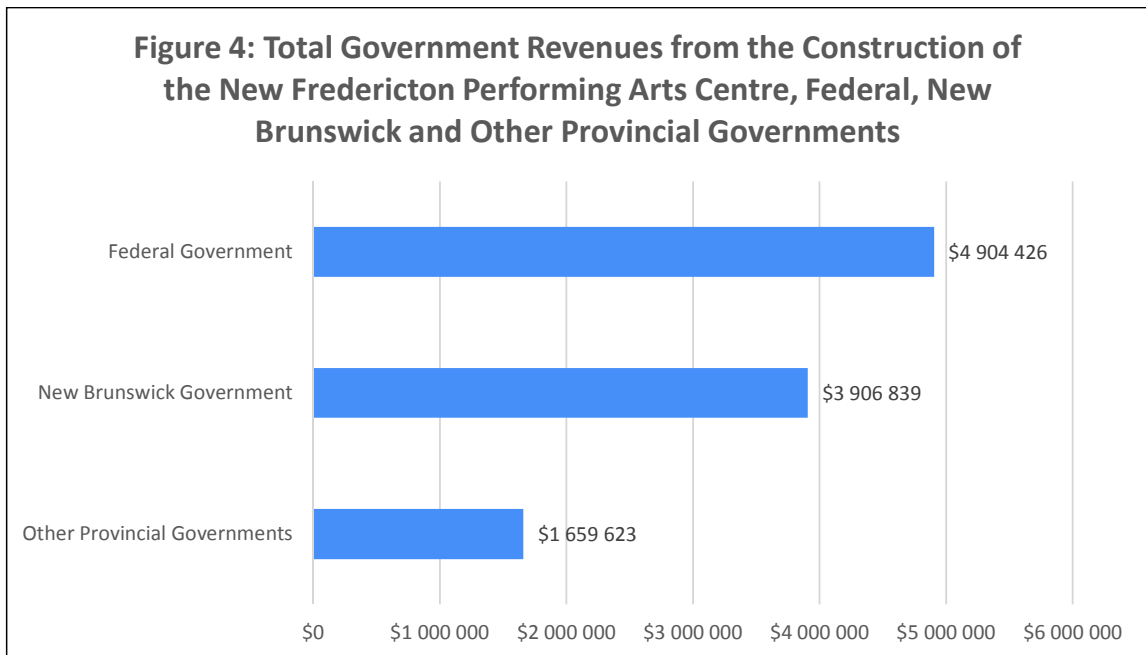


The expenditure linked to the new Fredericton performing arts centre will add more than 40.2 million dollars to New Brunswick’s GDP⁵ (Table 5). An additional 18.1 million dollars in GDP will be generated in other provinces, for a total of more than 58 million dollars. As will be the case for sales and employment, within New Brunswick, the impact will mostly be located in York region, but is not insignificant in other regions of the province (Figure 3).

⁵ Please see appendix C for details of contribution to GDP from the construction of the New Fredericton performing arts centre.

2.4. GOVERNMENT REVENUES

Total government revenues generated by the construction of the new Fredericton performing arts centre will be nearly 10.5 million dollars⁶ (Figure 4). The federal government will see revenues increased by 4.9 million dollars and the New Brunswick government by nearly 3.9 million dollars. Other provincial government, as a result of indirect impacts in provinces other than New Brunswick, will have revenues of nearly 1.6 million dollars.



⁶ Please see appendix D for details of government revenues generated the construction of New Fredericton performing arts centre.

3. OPERATIONS (ANNUALLY RECURRING)

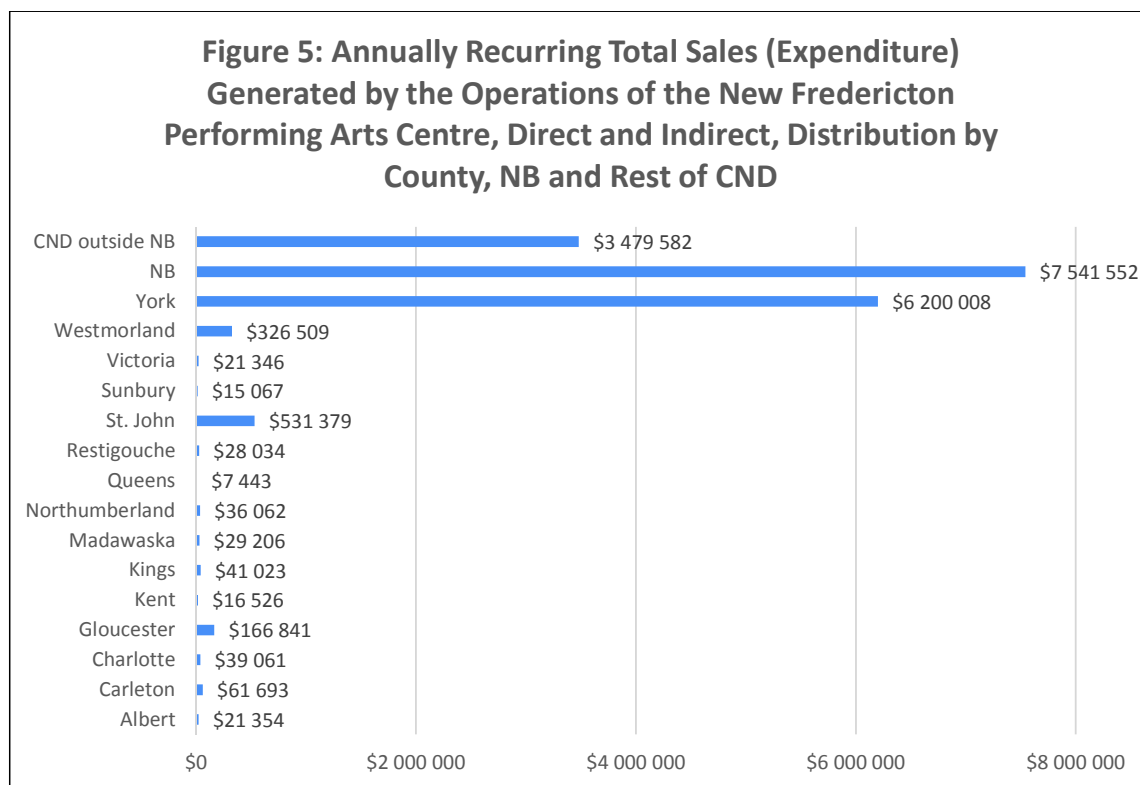
In section 3, we present the economic impact of operations expenditures projected for 2017-18 by the new Fredericton performing arts centre. These impacts are annually recurring, keeping in mind that the dollar amounts should increase to reflect inflation.

3.1. ANNUALLY RECURRING SALES (EXPENDITURE) GENERATED

	NB	CND Outside NB	Total
Direct	\$2 744 289	\$0	\$2 744 289
Indirect	\$4 797 263	\$3 479 582	\$8 276 845
Total	\$7 541 552	\$3 479 582	\$11 021 134

Operations expenditures will generate 7.5 million dollars in sales in New Brunswick and an additional 3.5 million in other provinces for a total of 11 million dollars⁷ (Table 6). As was the case previously, a high percentage of the impact takes place in York, with some impact in all regions of the province (Figure 5).

⁷ Please see appendix E for details of sales (expenditures) generated by the operations of the New Fredericton performing arts centre.



3.2. ANNUALLY RECURRING EMPLOYMENT

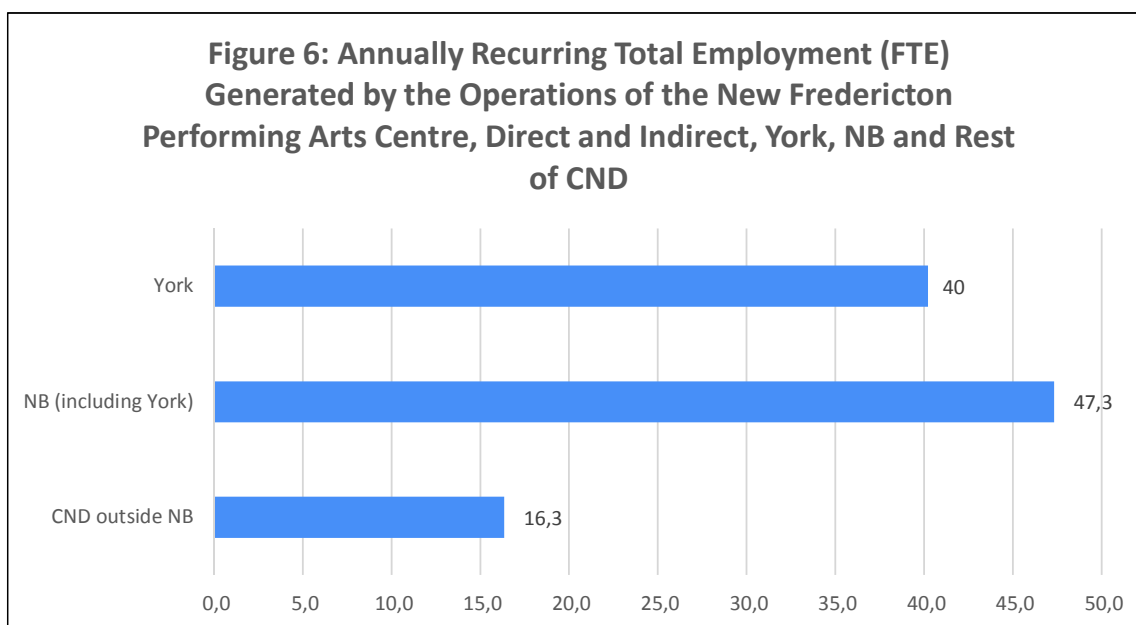
Employment linked to projected operations expenditures will total the equivalent of 47.3 FTE positions in New Brunswick and an additional 16.3 FTE positions in other provinces for a total of 63.7 FTE positions⁸ (Table 7). The majority of employment creation would take place in York (Figure 6).

⁸ Please see appendix F for details of employment creation from the operations of the New Fredericton performing arts centre.

Table 7: Annually Recurring Employment Generated (Full Time Equivalent) by the Operations of the new Fredericton performing arts centre, Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	28.0	0	28.0
Indirect	19.3	16.3	35.7
Total	47.3	16.3	63.7

Figure 6: Annually Recurring Total Employment (FTE) Generated by the Operations of the New Fredericton Performing Arts Centre, Direct and Indirect, York, NB and Rest of CND



3.3. GROSS DOMESTIC PRODUCT

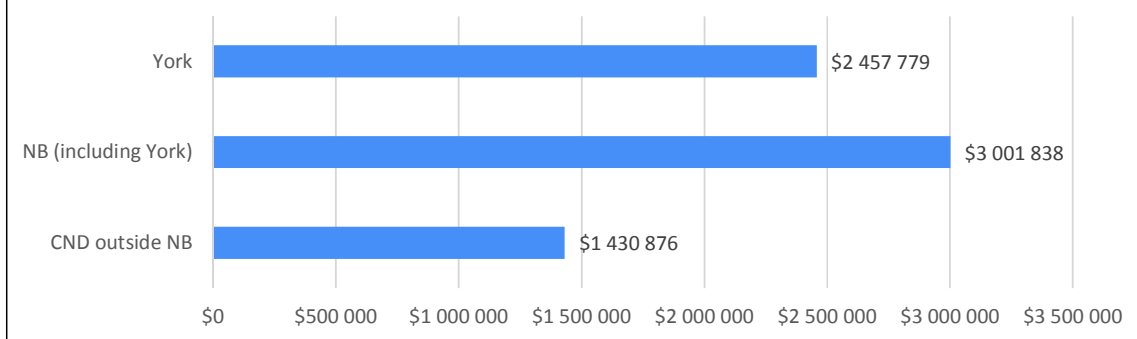
Projected operations expenditures of the new facility will contribute 3 million dollars to the province’s GDP and an additional 1.4 million dollars to the GDP of other provinces⁹ (Table 8). Again, most of the impact within New Brunswick will take place in York (Figure 7).

⁹ Please see appendix G for details of contribution to GDP from the operations of the New Fredericton performing arts centre.

Table 8: Annually Recurring Contribution of the Operations of the new Fredericton performing arts centre to the Gross Domestic Product (GDP), Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	\$1 421 030	\$0	\$1 421 030
Indirect	\$1 580 808	\$1 430 876	\$3 011 684
Total	\$3 001 838	\$1 430 876	\$4 432 714

Figure 7: : Annually Recurring Contribution of the Operations of the New Fredericton Performing Arts Centre to the Gross Domestic Product (GDP), Direct and Indirect, York, NB and Rest of CND

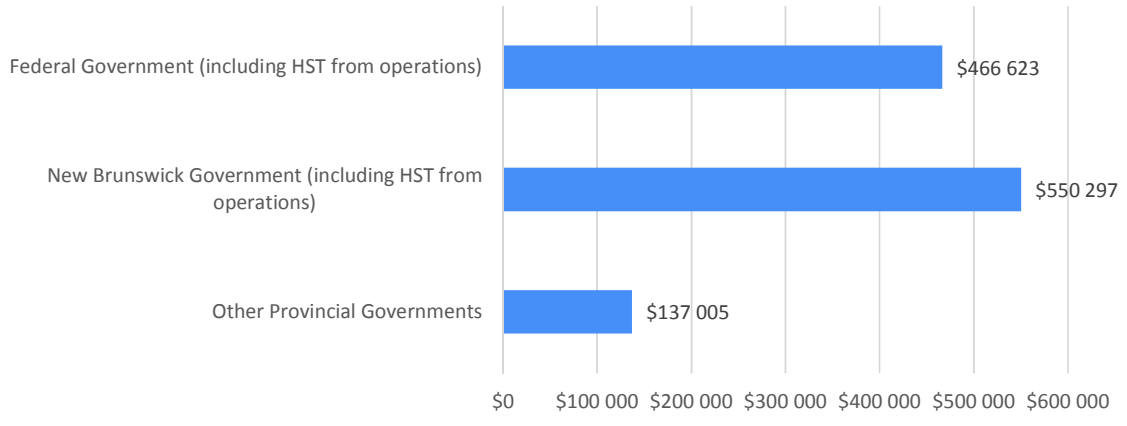


3.4. GOVERNMENT REVENUES

Projected operations expenditures will generate more than 264 thousand dollars to the Federal government’s coffers and more than 226 thousand dollars in the New Brunswick government’s coffers¹⁰. As a result of the indirect impacts of the operation of the proposed Fredericton performing arts centre, other provincial governments received 137 thousand dollars in revenues.

¹⁰ Please see appendix H for details of government revenues generated the operations of New Fredericton performing arts centre.

Figure 8: Total Government Revenues from the Operations of the Fredericton Playhouse, Federal, New Brunswick and Other Provincial Governments



4. PATRONS AND CLIENTS

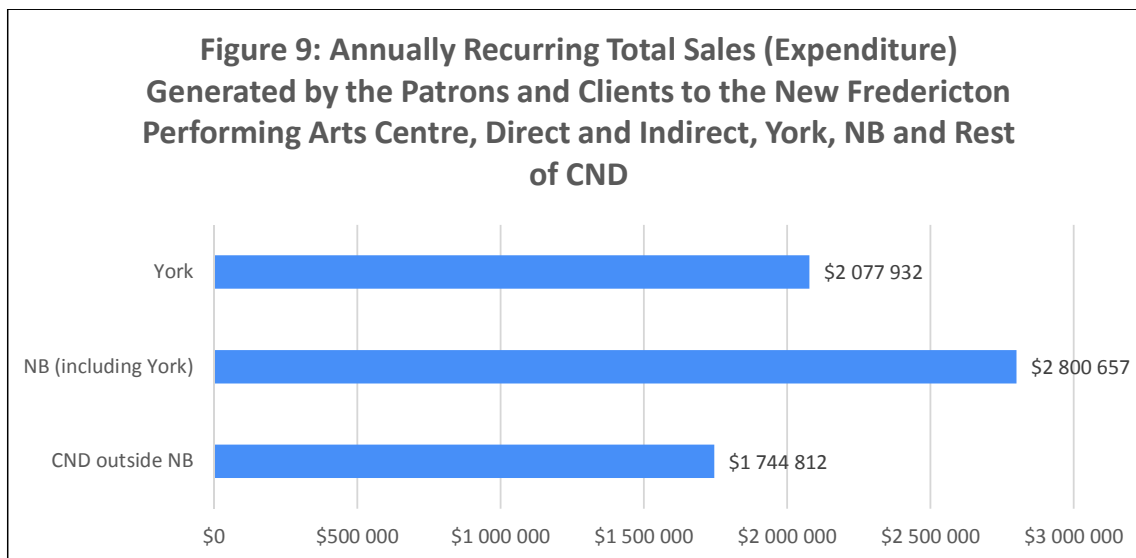
Section 4 presents the economic impact of the expenditures of patrons and clients of the new Fredericton performing arts centre. Again, these impacts are annually recurring

4.1. ANNUALLY RECURRING SALES (EXPENDITURE) GENERATED

	NB	CND Outside NB	Total
Direct	\$1 356 537	\$109 051	\$1 465 588
Indirect	\$1 444 120	\$1 635 761	\$3 079 881
Total	\$2 800 657	\$1 744 812	\$4 545 469

The expenditures of patrons and clients of the new facility will generate 2.8 million dollars in sales in New Brunswick and an additional 1.7 million in other provinces for a total of 4.5 million dollars¹¹ (Table 9). As was the case previously, a high percentage of the impact takes place in York (Figure 9).

¹¹ Please see appendix I for details of sales (expenditures) generated by the patrons and clients of the New Fredericton performing arts centre.



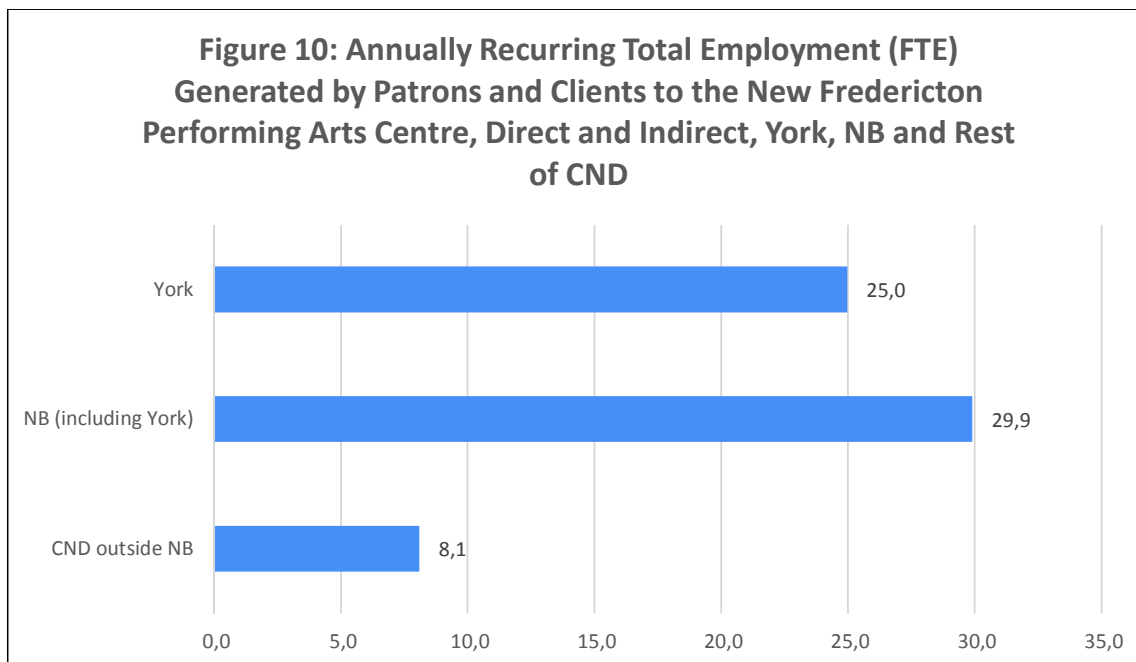
4.2. EMPLOYMENT

Employment linked to the expenditures of patrons and clients of the new facility will total the equivalent of 29.9 FTE positions in New Brunswick and an additional 8.1 FTE positions in other provinces for a total of 38 FTE positions¹² (Table 10). The majority of employment creation would take place in York (Figure 10).

Table 10: Annually Recurring Employment Generated (Full Time Equivalent) by the Patrons and Clients to the new Fredericton performing arts centre, Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	24.7	0.6	25.2
Indirect	5.3	7.5	12.8
Total	29.9	8.1	38.0

¹² Please see appendix J for details of employment creation from the patrons and clients of the New Fredericton performing arts centre.



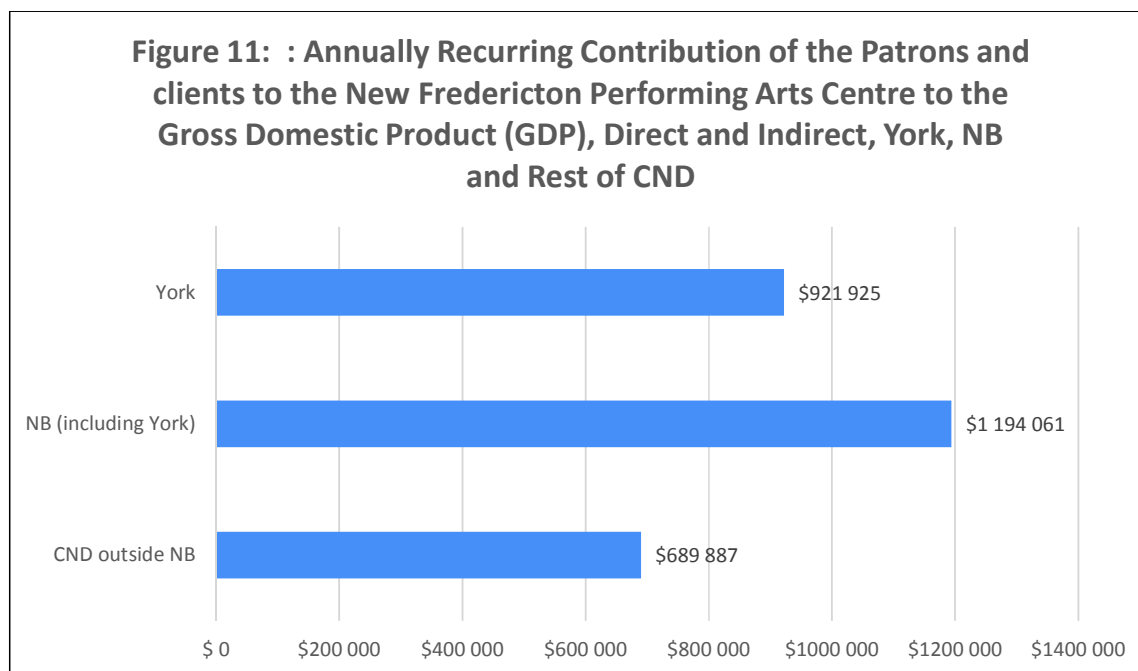
4.3. GROSS DOMESTIC PRODUCT

The expenditures of patrons and clients of the new Fredericton performing arts centre will contribute nearly 1.2 million dollars to the province’s GDP and an additional 690 thousand dollars to the GDP of other provinces¹³ (Table 11). Again, most of the impact within New Brunswick would take place in York (Figure 11).

Table 11: Annually Recurring Contribution of the Patrons and Clients to the new Fredericton performing arts centre to the Gross Domestic Product (GDP), Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	\$734 545	\$49 331	\$783 876
Indirect	\$459 516	\$640 556	\$1 100 072
Total	\$1 194 061	\$689 887	\$1 883 948

¹³ Please see appendix K for details of contribution to GDP from the patrons and clients of the New Fredericton performing arts centre.

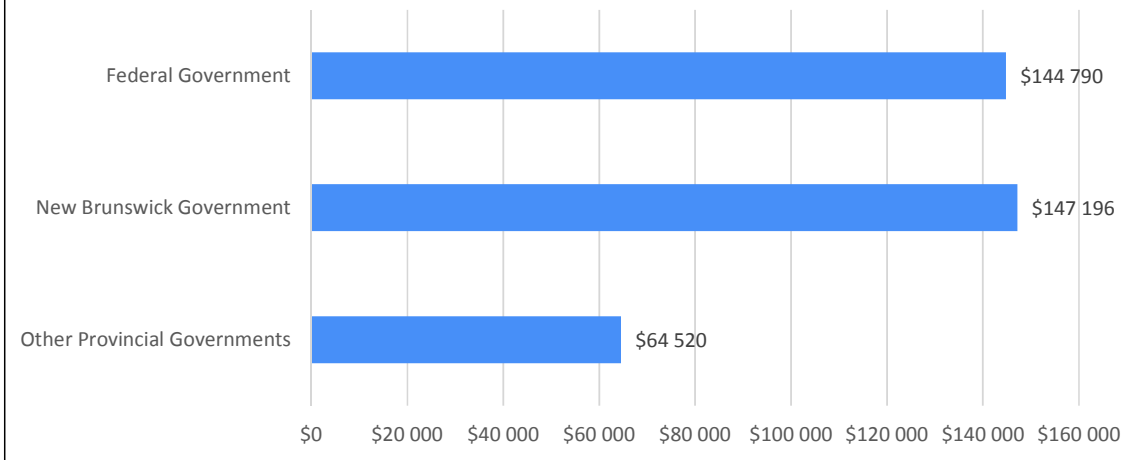


4.4. GOVERNMENT REVENUES

The expenditures of the new facility's patrons and clients will generate nearly 145 thousand dollars to the Federal government's coffers and nearly 150 thousand dollars in the New Brunswick government's coffers¹⁴. As a result of the indirect impacts of the expenditures of patrons and clients, other provincial governments would receive 64 000 thousand in revenues.

¹⁴ Please see appendix L for details of government revenues generated from patrons and clients of New Fredericton performing arts centre.

Figure 12: Annually Recurring Total Government Revenues from Patrons and clients to the New Fredericton Performing Arts Centre, Federal, New Brunswick and Other Provincial Governments



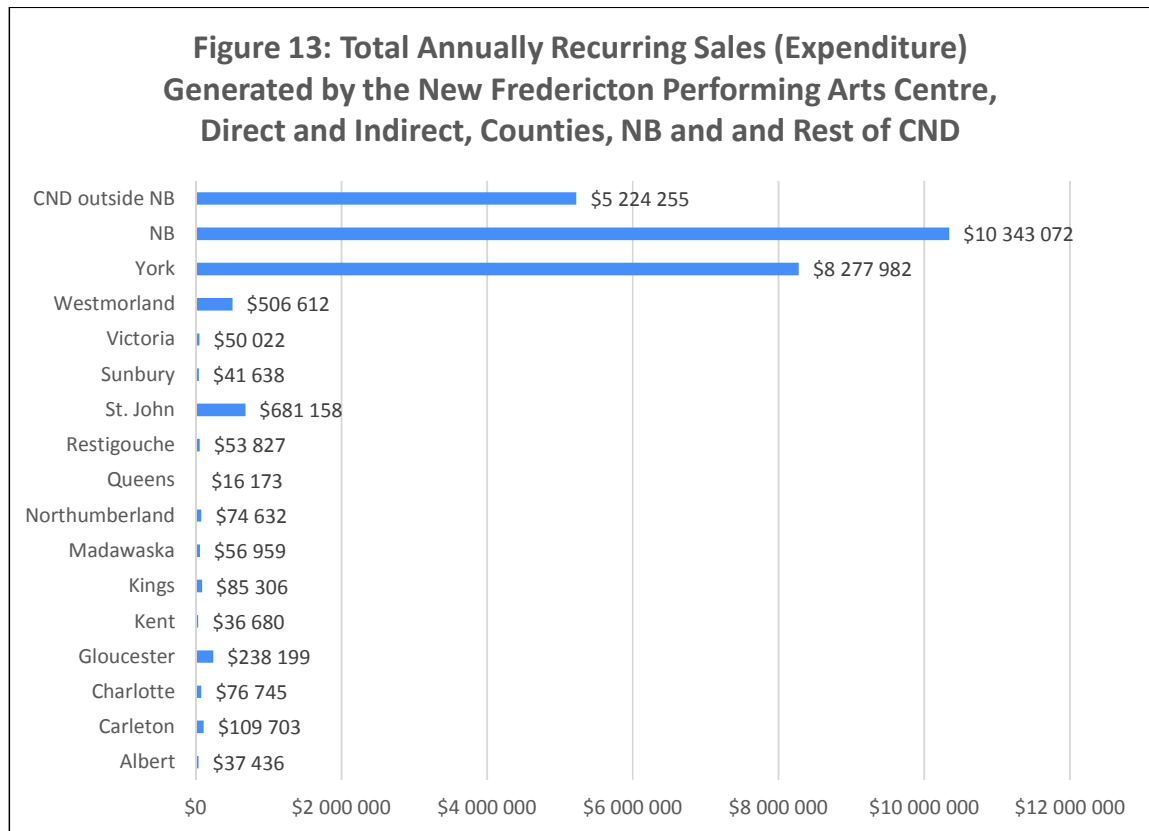
5. TOTAL ECONOMIC IMPACT OF ANNUALLY RECURRING ACTIVITIES

Section 5 presents the total economic of the new Fredericton performing arts centre, which is the sum of the impacts of patrons and clients' expenditures and operations.

5.1. SALES (EXPENDITURE) GENERATED

Table 12: Total Annually Recurring Sales (Expenditure) Generated the new Fredericton performing arts centre, Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	\$4 100 826	\$109 051	\$4 209 877
Indirect	\$6 242 246	\$5 115 204	\$11 357 450
Total	\$10 343 072	\$5 224 255	\$15 567 327



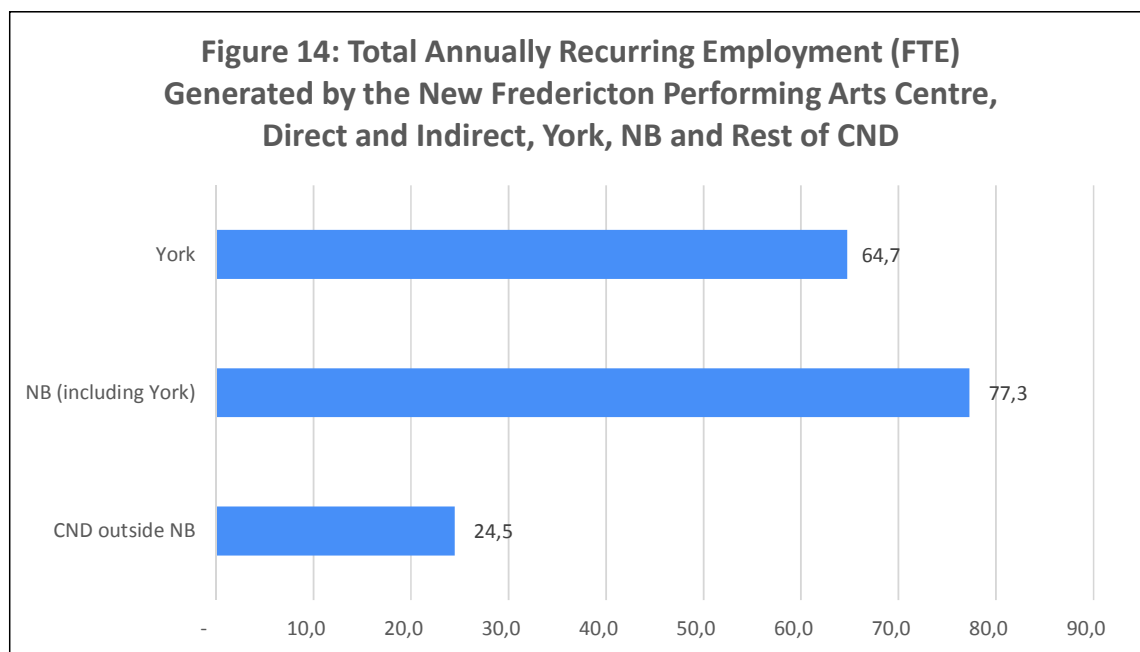
Sales generated will total 10.3 million dollars in New Brunswick, mostly in the Fredericton (York) region, and more than 5.2 million dollars in the other Canadian provinces (Table 12 and Figure 13).

5.2. EMPLOYMENT

Total annually recurring employment created in New Brunswick will be 77.3 FTE position (Table 15), most of it taking place in York (Figure 14).

Table 13: Total Annually Recurring Employment Generated (Full Time Equivalent) by the new Fredericton performing arts centre, Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total, 2015

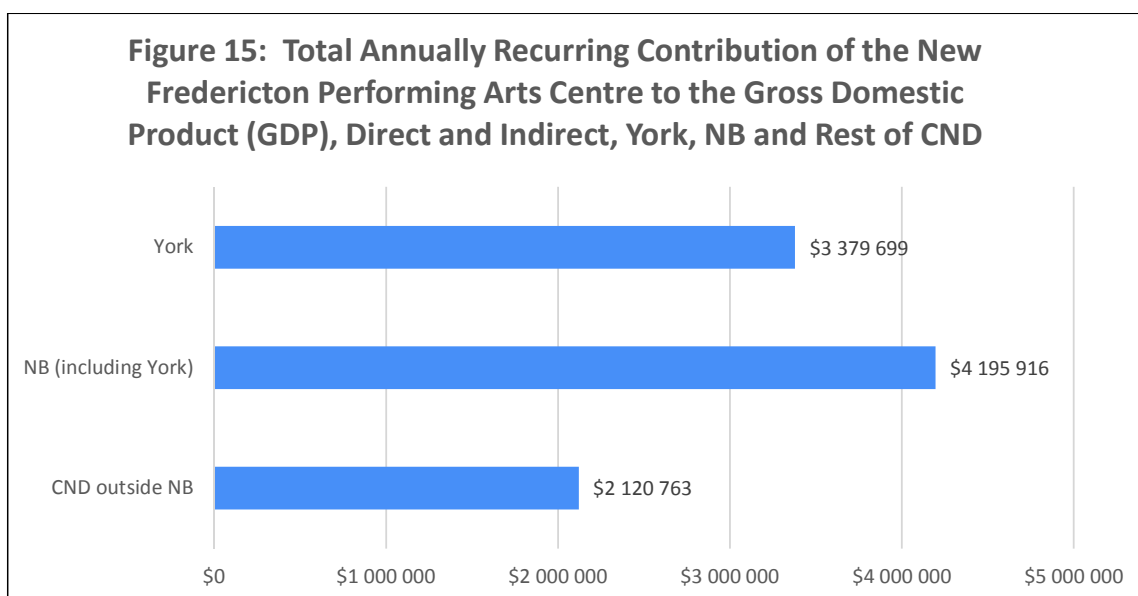
	NB	CND Outside NB	Total
Direct	52.7	0.6	53.3
Indirect	24.6	23.9	48.4
Total	77.3	24.5	101.7



5.3. GROSS DOMESTIC PRODUCT

Table 14: Total Annually Recurring Contribution of the new Fredericton performing arts centre to the Gross Domestic Product (GDP), Direct and Indirect Impact, New Brunswick, Canada Outside New Brunswick and Total

	NB	CND Outside NB	Total
Direct	\$2 155 574	\$49 332	\$2 204 906
Indirect	\$2 040 342	\$2 071 431	\$4 111 773
Total	\$4 195 916	\$2 120 763	\$6 316 679

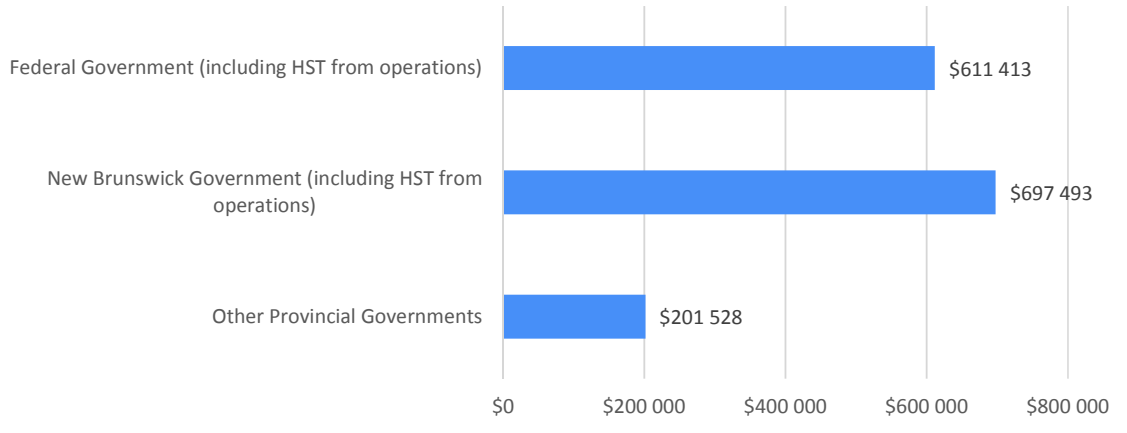


Total contribution to the province’s GDP will be more than 4 million dollars and an additional 2 million dollars to the GDP of other provinces (Table 14). Most of the impact within New Brunswick would take place in York (Figure 15).

5.4. GOVERNMENT REVENUES

Total annually recurring revenues for governments will be significant. It will be more than 600 thousand dollars in Federal government revenues, nearly 700 thousand dollars in provincial government revenues and nearly 200 thousand dollars to the revenues of other provincial governments (Figure 16).

Figure 16: Total Annually Recurring Government Revenues from the New Fredericton Performing Arts Centre, Federal, New Brunswick and Other Provincial Governments



6. CONCLUSION

The report presents the estimations of the economic impact of the new Fredericton performing arts centre, focusing on the construction of the new facility, operations expenditures and expenditures by patrons and clients.

We must remind the reader that such an analysis aims to present a relatively accurate picture of the situation but one should always be reminded that the results should be interpreted with caution: they probably do not offer an “exact” measure of the impacts, but rather an “acceptable approximation”. We are very confident that the present study is no exception and that it does present a very good measure of the economic impact of the new Fredericton performing arts centre.