

THE *ECONOMIC IMPACT* OF THE *ARTS* IN ALBERTA

- *Measuring the Value of the Arts* -

- **STUDY REPORT** -



Alberta
Foundation
for the Arts

Alberta

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Initial Background Materials and Analysis Completed by Econometric Research Ltd.

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Introduction & Background

The arts are an important part of the lives of all Albertans. They allow us to express ourselves individually and collectively, they beautify our surroundings and they provide us with opportunities to spend time with family and friends (Brown, 2004; Magidson & Brock, 1996; McCarthy *et al.*, 2004). Research also demonstrates that participation in the arts help to improve health outcomes and general well-being (Cooley, 2003) and enhance learning (Upitis & Smithrim, 2003.).

The social benefits of the arts cannot be assigned a dollar value – no amount of money will accurately reflect the reactions, impressions and sensations of participating in and experiencing the arts. The arts evoke feelings and emotions, allow us to relax and contribute to community pride – factors which do not come with a clearly defined price tag.

The development, production and consumption of arts activities, however, do involve the use of resources that result in economic impacts beyond the personal benefits to the participant. These economic impacts can be measured to provide a tangible estimate of the overall affect of arts activities and events within a specific economy. A dollar spent on visiting an art gallery, buying a book, attending a concert or a theatre production circulates and re-circulates within the economy, multiplying the effects of the original expenditures on overall economic activity. This process is referred to as the economic *multiplier effect*.

The initial expenditures of an art gallery on wages and materials are generally referred to as the direct costs of operation and their effects are referred to as the *initial (direct) effects*. Subsequent purchases by suppliers of materials and services to sustain the original and derivative expenditures are called the *indirect effects*. *Induced effects* emerge when workers in the sectors, stimulated by initial and indirect expenditures, spend their additional incomes on consumer goods and services.

Research Methodology

A specialized economic impact model, developed by Econometric Research Ltd. for the Government of Alberta, was used to complete the analysis. The Demand Economic Impact Model (DEIM: Alberta) has been used to estimate the economic impact of various sectors within the province by both Economic Development and Community Development.

The model has been applied to the study of The Economic Impact of Tourism in Banff, Canmore and many parts of Alberta, The Economic Impact of West Edmonton Mall, several airports in Alberta, a large set of Alberta Economic Development projects, The Economic Impact of large and small heritage facilities in Alberta. The model has also been applied outside of Alberta including the Ontario Provincial Parks System, Transportation Capital Projects in Ontario, Waste Management Activities in Ontario, the Great Whale Project in Quebec and the Economic Value of Universities in Canada.

The assessment of the economic impact of the arts sector is based on the expenditures of arts organizations within the Alberta economy. Arts organizations spend money on salaries, supplies, materials, utilities and capital costs to bring creative activities and events to Albertans. This act of spending has direct, indirect and induced impacts on the economy of Alberta.

Each year the Alberta Foundation for the Arts provides funding to arts organizations, including those working in film/video development and production, the literary arts, the performing arts and the visual arts. For the purposes of the current study, the analysis includes financial information from **481 arts organizations** funded by the Alberta Foundation for the Arts in **2003/2004**.

These organizations received grant dollars through **13** of the AFA's programs in all arts disciplines – including arts festivals, arts service organizations, community arts groups, cultural industry associations, galleries, major performing arts companies and professional arts organizations. In 2003/2004, the 481 organizations included in the current analysis received approximately **\$13 million** in awards from the Alberta Foundation for the Arts.

Not included in the analysis of the arts sector is the film production companies supported by the \$13.5 million Alberta Film Development Program (AFDP), which is administered by the AFA. Independent economic impact analysis has been completed for the AFDP throughout the development of the program. Also, the economic value and impact of the AFA's provincial art collection – currently with more than 7,200 pieces of Alberta art – has not been included.

Economic Impact Analysis: A Synopsis

Economic impact analysis is a useful mathematical tool capable of quantifying the patterns of interdependence among sectors and activities. It is predicated on two fundamental propositions. First, regardless of the inherent value of activities such as leisure, recreation or tourism, to the extent that any activity involves the use of scarce

resources economic consequences that can be measured and compared are generated. Second, economic impacts are only partially captured by assessing direct expenditures. There are significant indirect and induced impacts associated with every direct expenditure. These indirect and induced impacts are often larger than the direct impacts.

The Model

The impact model used here is a special application of a generic model developed by Econometric Research Limited. It is a unique model that captures the economic impact of investment projects and activities' expenditures at the local level (counties or economic regions), the provincial level (Alberta) and the national level. The model is based on a novel technology that integrates input-output analysis and location theory.

The model generates several output indicators. For the purpose of the current study, the following indicators are considered:

- Overall affects of direct, indirect and induced impacts of the sector on Value Added (Income), Gross Output (Sales or Turn Over), Labour Income and Employment.
- Tax revenues generated by all three levels of government (national, provincial and local) as a result of initial expenditures in the sector.
- The impact on employment within 33 industries to illustrate the linkages of the activity throughout the economy.

The model uses a large set of economic and technical databases that are regularly published by Statistics Canada. For example, this includes the inter-provincial input/output tables, employment by sector, taxes by type of tax and the level of government collecting it, prices of products and energy used in physical and energy units.

Overview of Results

This section presents the results from the DEIM analysis of arts organizations funded by the Alberta Foundation for the Arts. DEIM analysis concentrates on reporting key economic impacts on the Gross Provincial Product, wages and salaries, employment, taxes at all levels of government and the value of imports associated with the sector.

Provincial Economic Impact

Table 1 presents the overall economic impact of the arts to Alberta's provincial economy. The Arts Sector in Alberta spent over \$120.2 million on its operations and productions. The DEIM model assigns an economic multiplier of 1.28 to these Arts expenditures that support and sustain a stream of economic benefits in Alberta.

The Gross Provincial Product (GPP) of the province is permanently increased by \$153.2 million as a result of the creation and production of artistic activities and events. This represents the actual value added to the economy due to the operations of the arts sector. The economy is increased by \$58.4 million in direct spending by arts organizations, while an additional \$94.7 million is generated through indirect and induced spending by suppliers, producers and consumers.

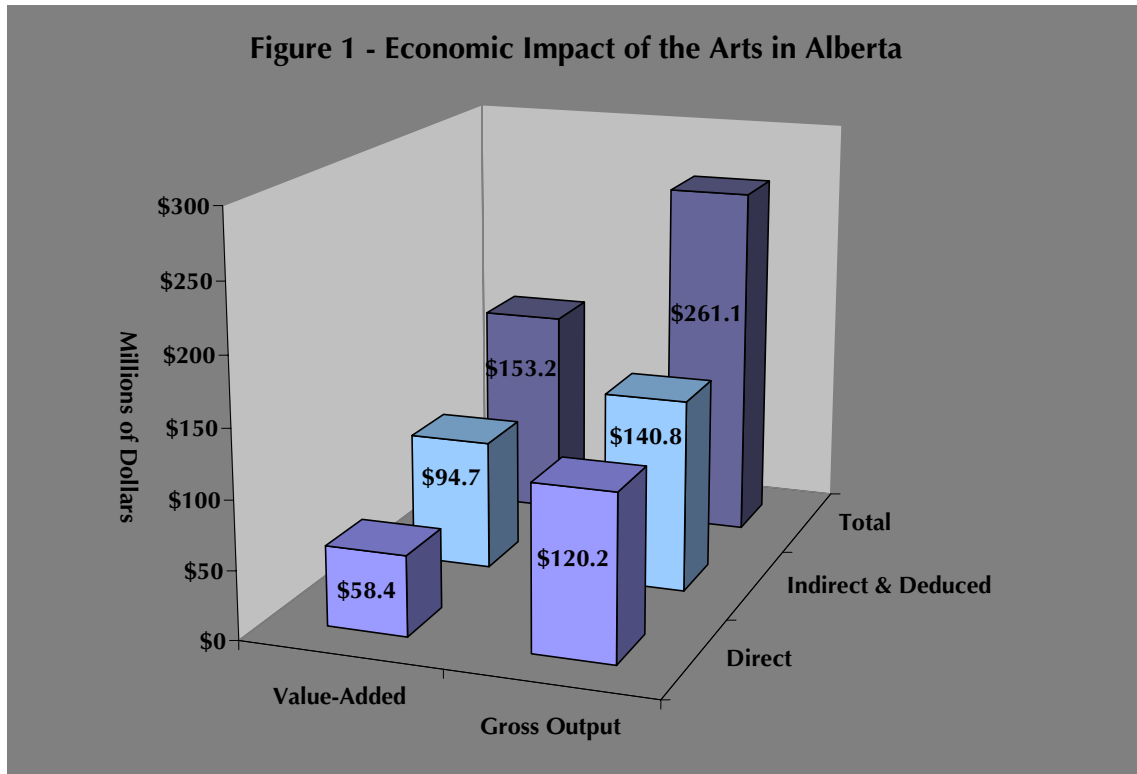
If you consider the accumulated affect – or the gross output – the direct impact of arts spending is the initial expenditure of \$120.2 million, while indirect and induced spending is \$140.8 million. Since the gross output includes all economic aspects of the production and creation of all resources used within the arts sector, the multiplying effect is equal to 2.17, which represents a total impact of \$261.0 million. The gross output, however, is not as meaningful as the value added number because essentially allows for “doubling counting” of impacts.

Table 1 – Expenditures & Impacts	
	Value
Initial Expenditure	\$120,251,762
Value Added	
Direct	\$58,445,296
Indirect & Induced	\$94,713,748
Total	\$153,159,044
Multiplier	1.28
Gross Output	
Direct	\$120,251,762
Indirect & Induced	\$140,831,762
Total	\$261,083,524
Multiplier	2.17

Source: Econometric Research Ltd.

If the initial investment of the Alberta Foundation for the Arts in the sample organizations (approximately \$13 million in 2003/2004) is considered, the value-added impact of \$153.2 million represents a return of 12:1.

Figure 1 presents the economic impact of initial expenditures of arts organizations in a graphical manner.



Source: Econometric Research Ltd.

Wages & Salaries and Employment

The DEIM model estimates wages and salaries paid directly to individuals involved in the arts sector. The model also provides an estimate of the total value of wages and salaries paid to individuals through indirect and induced impacts of the arts sector. Table 2 presents the Alberta results related to the impact of the arts sector on wages, salaries and employment.

In Alberta, direct wages and salaries are equal to \$52.6 million, while indirect and induced are \$54.1 million. This adds up to an overall impact of \$106.8 million being provided to Albertans in wages and salaries through the operation of arts organizations in the province.

About 3,500 jobs are created as a result of the arts sector, with 1,816 of these being directly in arts organizations that create, produce and present artistic activities and events to Albertans. These include actors, administrators, dancers, editors, filmmakers, musicians, poets, presenters, visual artists and writers who share their creative expressions with Albertans to enhance the province's quality of life.

A further 1,692 Albertans owe their employment to the indirect and induced impacts of initial expenditures by arts organizations – the wood supplier who provides construction materials for the building of sets, the paper producers who ensure there is paper to print books and the service industry representatives who host acting troupes as they tour across the province are a few examples of the kinds of indirect and induced employment supported through the arts sector.

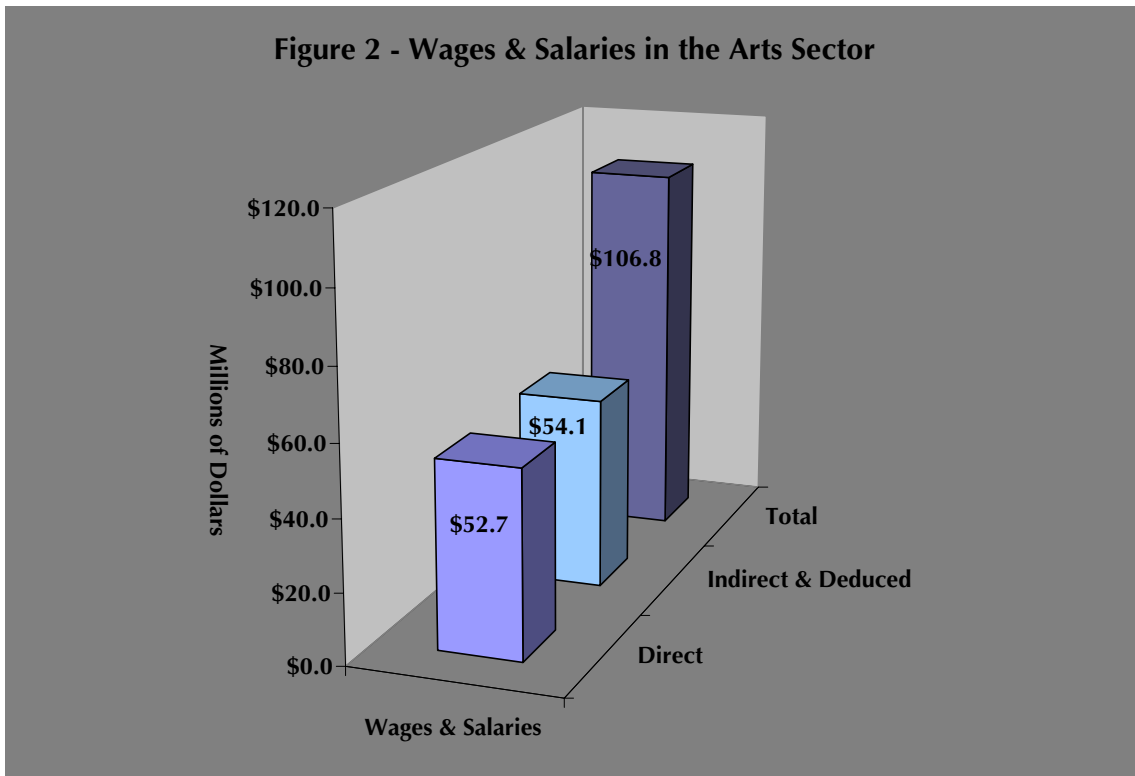
Table 2 – Wages & Salaries and Employment

	Value
Wage & Salaries	
Direct	\$52,672,244
Indirect & Induced	\$54,127,459
Total	\$106,799,703
Employment	
Direct	1,816
Indirect & Induced	1,692
Total	3,508
Multiplier	1.93

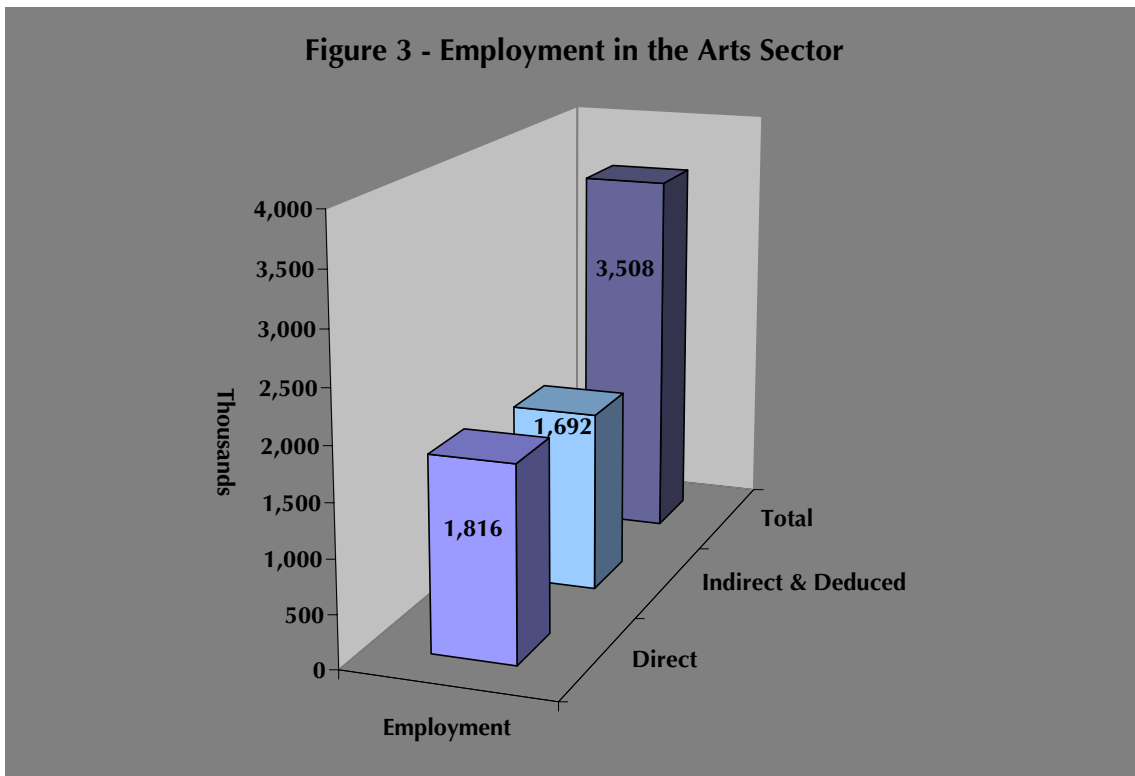
Source: Econometric Research Ltd.

In terms of average salaries based on the numbers above, Albertans employed directly in the arts sector earn an average of \$29,004, while those who benefit from indirect or induced employment have a slightly higher average salary of \$31,990. Overall, the average salary of Albertans working as a result of expenditures in the arts sector is \$30,444.

Figures 2 and 3 present results related to wages & salaries and employment in a graphical manner.



Source: Econometric Research Ltd.



Source: Econometric Research Ltd.

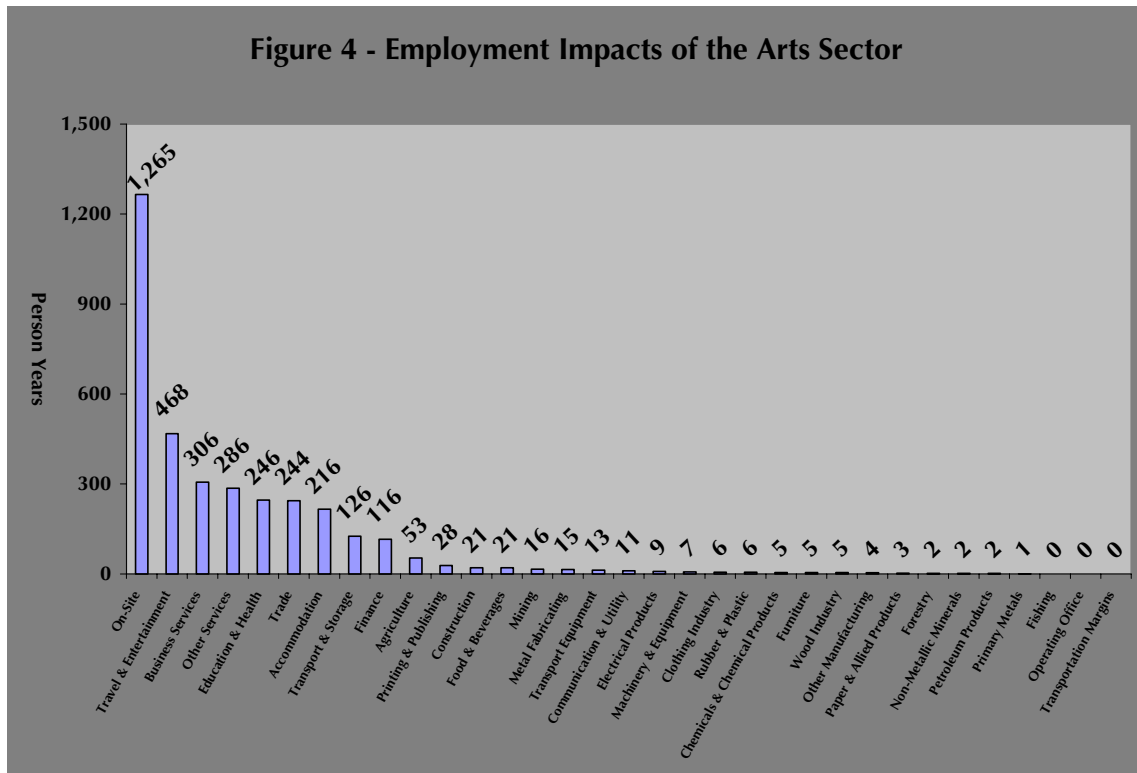
Further analysis estimates the various employment fields that are affected by the expenditures of arts organizations. As previously reported, a total of 3,508 person years are supported by the arts sector throughout various employment fields. This data allows a view of where the direct, indirect and induced impacts occur as artistic activities and events are planned, created, developed and produced. Table 3 and Figure 4 present the person years supported by the arts sector in a wide-range of employment fields.

The field with the highest impact is the sector itself with close to 1,300 person years being supported by arts organizations each year in the province. Analysis shows that the service industry (travel & entertainment, accommodations and food & beverage) are affected fairly significantly by the activity of arts organizations (a combined total of 705 person years). The corporate sector (business services, trade and finance) also benefits with a combined 666 person years; while employment in industrial and blue collar fields (e.g., construction, mining, clothing and furniture) make up the balance of impacts.

Table 3 –Employment Field Impacts of the Arts Sector

Field	Person Years	Field	Person Years
On-Site	1,265	Electrical Products	9
Travel & Entertainment	468	Machinery & Equipment	7
Business Services	306	Clothing Industry	6
Other Services	286	Rubber & Plastic	6
Education & Health	246	Chemicals & Chemical Products	5
Trade	244	Furniture	5
Accommodation	216	Wood Industry	5
Transport & Storage	126	Other Manufacturing	4
Finance	116	Paper & Allied Products	3
Agriculture	53	Forestry	2
Printing & Publishing	28	Non-Metallic Minerals	2
Construction	21	Petroleum Products	2
Food & Beverages	21	Primary Metals	1
Mining	16	Fishing	0
Metal Fabricating	15	Operating Office	0
Transport Equipment	13	Transportation Margins	0
Communication & Utility	11		
Total			3,508

Source: Econometric Research Ltd.



Source: Econometric Research Ltd.

Tax Impacts of the Arts Sector

All levels of government receive financial benefits from the operations of the arts sector through the tax system. The overall taxes returned to government through the arts sector is close to \$70 million (see Tables 4 and 5).

The largest portion of this impact (\$41.7 million) goes to the federal government through personal income tax, GST, corporate profit taxes, employment insurance and CPP contributions. The provincial government nets about \$20 million dollars through the taxation system with half of this amount coming from personal income tax. Local governments receive the remainder of the balance (\$6.6 million) through property and business taxes.

When looking at the provincial return in taxes, there is a 1.5:1 return on the Alberta Foundation for the Arts initial investment of \$13 million – illustrating that the provincial government nets more than they put into the arts through taxes alone.

Table 4 – Overall Tax Impacts of the Arts Sector

	Value
Overall Tax Impacts	
Federal	\$41,735,278
Provincial	\$19,590,121
Local	\$6,562,691
Total	\$67,888,090

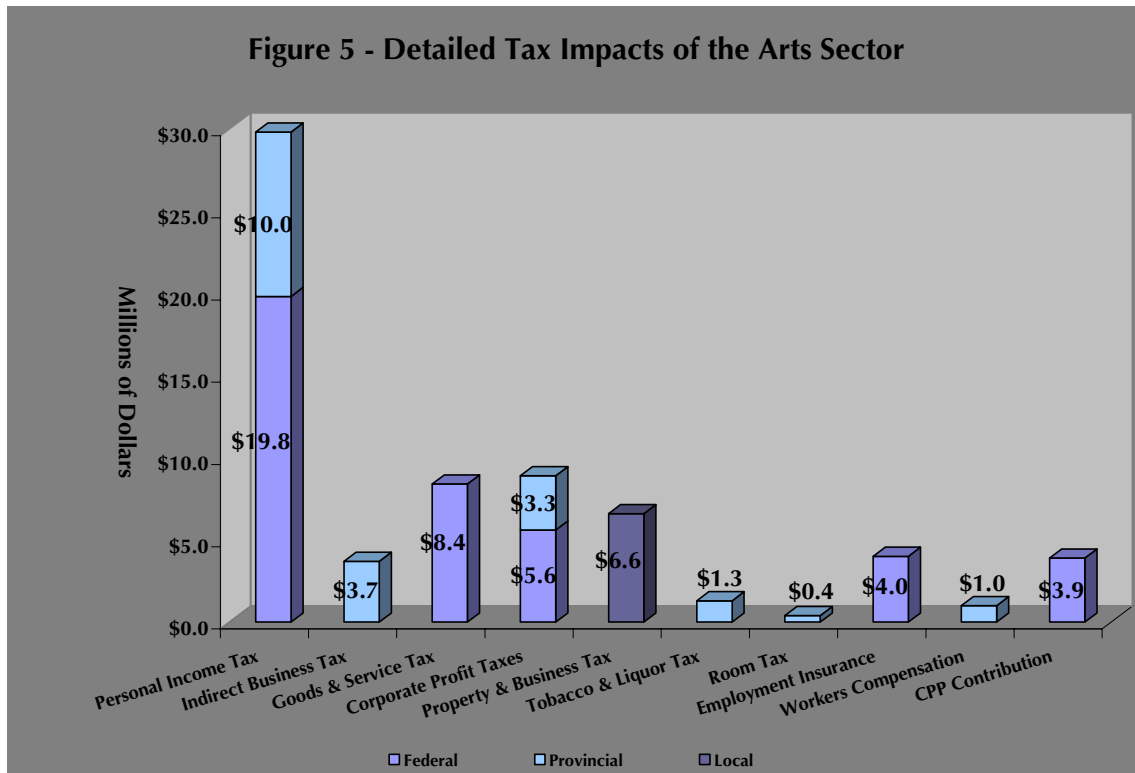
Source: Econometric Research Ltd.

Table 5 and Figure 5 provide detailed analysis of the breakdown of impacts within the overall tax system. Close to half (\$29.8 million) of all tax income is received through personal income tax, while the federal government benefits from the GST, employment insurance and CPP contributions. Both the federal and provincial governments generate tax revenue through corporate profit taxes.

Table 5 – Detailed Tax Impacts of the Arts Sector

Area	Federal	Provincial	Local	Total
Personal Income Tax	\$19,835,246	\$10,007,718		\$29,842,964
Indirect Business Tax		\$3,668,976		\$3,668,976
Goods & Services Tax	\$8,383,848			\$8,383,848
Corporate Profit Taxes	\$5,621,706	\$3,287,102		\$8,908,808
Property & Business Tax			\$6,562,691	\$5,562,691
Tobacco & Liquor Tax		\$1,293,162		\$1,293,162
Room Tax		\$379,859		\$379,859
Employment Insurance	\$3,950,452			\$3,950,452
Workers Compensation		\$953,304		\$953,304
CPP Contributions	\$3,944,026			\$3,944,026
Total	\$41,735,278	\$19,590,121	\$6,562,691	\$67,888,090

Source: Econometric Research Ltd.



Source: Econometric Research Ltd.

Observations and Conclusions

The following observations and conclusions can be made about the economic impact of the arts sector in Alberta.

- The arts sector has a significant impact on the Gross Provincial Product of Alberta with a value-added impact of \$153.2 million. This represents a multiplying effect of 1.28 from the \$120.2 million initial expenditures by the arts sector.
- The province of Alberta receives a 12:1 return on their initial investments in the arts through the Alberta Foundation for the Arts.
- Just over 3,500 Albertans owe their full-time job to the operations of the arts sector with total salaries equaling \$106.8 million.
- All three levels of government receive tax revenue through the arts sector. A total of \$67.9 million in taxes is collected through various taxation systems each year.
- The arts are clearly an important part of Alberta's economic vitality – however, the intrinsic social and cultural value of the arts must not be under-estimated.

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