Economic Impact of Golf on the Saskatchewan Economy in 2019 and 2021

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Table of Contents

List of Tables

Executive Summary

Introduction

Since 1889 golf has become an increasingly popular sport in Canada from a game catering to wealthy elites to a game enjoyed by all. As of 2019, there were 5.7 million people across the country actively playing golf. While typically seen as just a source of recreation, golf is also a major economic driver creating a sizeable impact on GDP, employment, environmental sustainability, and charitable activities.

Golf as an industry generates income from a wide range of sources, from memberships and green fees to events and tournaments. *The Economic Impact of Golf in Canada (2019)*, a study conducted on behalf of *We Are Golf* by Group ATN Consulting Inc., found that golf accounted for $16.5 billion in initial expenditure and contributed $18.2 billion to Canada's GDP, as well as raising approximately $330 million in charitable donations in 2019. Further, the golfing industry accounted for 149,844 direct full-time and full-time equivalent positions, and 99,034 indirect and induced positions. Employment related to the golfing industry generated $4.8 billion of direct labour income, and $5.8 billion in indirect and induced labour income. Golf also generated $1.8 billion in federal tax revenue and $2.1 billion in provincial tax revenue. Employment within the industry also provides youth with opportunities, as 48% of those employed were students.

Golf Saskatchewan commissioned Praxis Consulting to provide a provincial perspective to the 2019 national study (noting that 2019 represented the final full year prior to the COVID-19 pandemic) and an update to 2021 to provide an estimate of growth of the industry since 2019.

Key Takeaways

In 2019, golf in Saskatchewan generated:

- $509.7M in gross economic activity,
- $295.8 M in gross domestic product,
- $195.7 M in labour income,
- 9,799 jobs, and
- $94M in federal and provincial tax revenues.
- Roughly 1 in every 58 jobs in the province depend directly and indirectly on golf in Saskatchewan.

In 2021, golf in Saskatchewan generated:

- $667.3M in gross economic activity,
- $395.6M in gross domestic product,
- $228.8M in labour income,
- 10,801 jobs, and
- $115.3 M in federal and provincial tax revenues
- Roughly 1 in every 53 jobs in the province depends directly and indirectly on golf in Saskatchewan.

Most importantly, Golf proved to be relatively "pandemic proof", growing between 10% and 34% (depending on the metric) between 2019 and 2021.

Study Method

Golf Saskatchewan surveyed its member base asking for estimates of 2019 and 2021 course revenues, employment, wages, capital expenditures, and estimated non-course participant spending. These factors provided the economic model inputs to the study.

This analysis presents results based on standard methods for estimating economic contributions for sub-national regions. Results are the sum of direct, indirect, and induced impacts on the provincial economy of a golf course operations, capital spending, and non-course participant spending. Economic leakages are accounted for and represent extra-provincial spending by Saskatchewan courses.

All impacts are considered relative to a hypothetical Base Case: no Golf in Saskatchewan. Direct impact is the total initial expenditure. Indirect impact is the secondary impact that includes inter-industry transactions: purchases of inputs from supporting industries. Induced impact is the additional impact from changes in household spending as additional labor is hired or reduced.

Gross Output measures total expenditures on local goods and services as well as payments to labour and business profits. Gross output is the total value of goods and services produced by an industry and includes intermediate inputs that are foreign and domestically produced goods and services used by an industry in the production of its gross output. Value added is the difference between gross output and intermediate inputs and represents the value of labour and capital used in producing gross output. The sum of value added across all industries is equal to gross domestic product for the economy.

Gross Domestic Product (GDP) measures net economic activity within a prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP excludes the value of intermediate goods and services used in production. Labour income includes wages, salaries, and employer contributions to pensions and benefit packages.

Employment impacts are measured in positions and contain a mix of full and part-time positions. Employment results are rounded to the nearest whole number, and as such, column sums may not necessarily add to the table total.

Introduction

Since 1889 golf has become an increasingly popular sport in Canada from a game catering to wealthy elites to a game enjoyed by all. As of 2019, there were 5.7 million people across the country actively playing golf. While typically seen as just a source of recreation, golf is also a major economic driver creating a sizeable impact on GDP, employment, environmental sustainability, and charitable activities.

Golf as an industry generates income from a wide range of sources, from memberships and green fees to events and tournaments. *The Economic Impact of Golf in Canada (2019)*, a study conducted on behalf of *We Are Golf* by Group ATN Consulting Inc., found that golf accounted for $16.5 billion in initial expenditure and contributed $18.2 billion to Canada's GDP, as well as raising approximately $330 million in charitable donations in 2019. Further, the golfing industry accounted for 149,844 direct full-time and full-time equivalent positions, and 99,034 indirect and induced positions. Employment related to the golfing industry generated $4.8 billion of direct labour and $5.8 billion in indirect and induced labour income. Golf also generated $1.8 billion in federal tax revenue and $2.1 billion in provincial tax revenue. Employment within the industry also provides youth with opportunities, as 48% of those employed were students.

An analysis of golf industry trends shows a positive outlook. When comparing numbers from 2013 to 2019, GDP impact increased by 14%, labour income increased by $1.3 billion, federal and provincial tax revenue increased by $1.5 billion, and student employment increased by 11%. Total number of rounds played decreased from 60 million in 2013 to 57 million in 2019 however, this has had no negative monetary effect due to price inflation. The increase in key indicators across the board shows that the golf industry is prime for investment, as of 2019, investors and operators have dedicated $727 million across the industry to increase capital.

Golf also plays an important part in other industries, such as tourism. In 2019, Canadians made over 4.8 million trips[1] related to golf, three million of those within their home province. This golf related travel generated $8.2 billion in tourism revenue with accommodation, transportation, and food and beverage spending making up most of the expenditures. Environmentally, golf courses play a noticeable role. The 2,043 18-hole courses operating within Canada account for 432,434.5 acres of urban green space, of which 74,131.6 acres is wetland, meaning the golf industry occupies 0.5% of Canada's wetland ecosystem.

Golf Saskatchewan commissioned Praxis Consulting to provide a provincial perspective to the 2019 national study (noting that 2019 represented the final full year prior to the COVID-19 pandemic) and an update to 2021 to provide an estimate of growth of the industry since 2019.

Method

This analysis presents results based on standard methodologies for estimating economic contributions for sub-national geographies. Results are the sum of direct, indirect, and induced impacts for the province and its local firms.

Golf Saskatchewan surveyed its member base asking for estimates of 2019 and 2021 course revenues, employment, wages, capital expenditures, and estimated non-course participant spending. These provided economic model inputs. Of member courses contacted, 27 responded. Results were scaled up

[1] Defined as greater than 80km from their place of residence

to 104 member courses and 209 non-member courses. Scaled up results for 2019 saw $145M in course revenues, $98M in course wages and salaries, 7,207 employees, $72M in non-wage expenditures, $19M in course capital expenditures, and $72M in non-course participant spending. Results in 2021 saw $198M in course revenues, $104M in wages and salaries, 7,539 employees, $81M in non-wage expenditures, $52M in course capital expenditures, and $93M in non-course participant spending.

To estimate the benefits in Saskatchewan from golf in 2019 and 2021, a separate economic model was developed for the province using the latest provincial input-output tables. An input-output table is a means of presenting a detailed analysis of the process of production, the use of goods and services (products), and the income generated in that production. The Saskatchewan model is rectangular in nature with 35 industries and 66 commodities. It is based on a standardized methodology (Statistics Canada's) and will yield results similar to Statistics Canada's inter-provincial model and the Conference Board of Canada's STEAM Model. Model description and definitions are available in Appendix A.

Course operational impacts were calculated by creating a mixed endogenous–exogenous model. This approach allows modification of the input structure of the expanding industry to reflect the output and input structure of a new development or event. This approach is appropriate when the input structure of the project differs significantly from the input structure of the impacted industry. Directly impacted industries in this study were the Arts, Entertainment and Recreation industry (which includes spectator sports, concerts, and sporting and entertainment venues) for course operations. In this study, the labour income and employment coefficient was adjusted to reflect estimated employment and income paid to labour. A detailed account of the mixed endogenous–exogenous model methodology is available in Appendix B. Under this approach expenses are treated as industry gross output and assigned to either inter-industry purchases or final value added (wages, amortization, and profits).

Results

The results below are direct, indirect, and induced impacts for the fiscal expansion resulting from increased spending in the local economy. All impacts are considered relative to the Base Case: no golf in Saskatchewan.

Direct impact is the total initial expenditure.

Indirect impact is the secondary impact that includes inter-industry transactions: purchases of inputs from supporting industries.

Induced impact is the additional impact from changes in household spending as industries add labour in response to higher levels of demand for output.

Gross Output measures total expenditures on local goods and services as well as payments to labour and business profits.

GDP (Gross Domestic Product) measures net economic activity within a prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP excludes the value of intermediate goods and services used in production. Direct indirect and induced employment impacts are measured in positions.

Labour income includes wages, salaries, and employer benefits. Labour income includes wages, salaries, and employer contributions to pensions and benefit packages.

Economic model results are shown in the tables below.

Table 1: Total Provincial Economic Impacts: Golf in 2019

Total Impacts 2019	Gross Output ($M)	Gross Domestic Product ($M)	Employment (Positions)	Labour Income ($M)	Government Revenues ($M)
Course Operations Impacts	367.3	215.4	8,575	154.3	70.1
Course Capital Investment	31.7	15.1	128	7.0	3.6
Non-Course Participant Spending	110.7	65.3	1,096	34.4	20.3
Total Impact	**509.7**	**295.8**	**9,799**	**195.7**	**94.0**

Table 2: Total Provincial Economic Impacts: Golf in 2021

Total Impacts 2021	Gross Output ($M)	Gross Domestic Product ($M)	Employment (Positions)	Labour Income ($M)	Government Revenues ($M)
Course Operations Impacts	437.3	269.6	9,025	164.9	79.0
Course Capital Investment	85.7	40.9	346	19.0	9.8
Non-Course Participant Spending	144.3	85.1	1,429	44.8	26.5
Total Impact	**667.3**	**395.6**	**10,801**	**228.8**	**115.3**

Table 3: 2019 to 2021 Industry Growth

	2019	2021	Growth	% Growth
Gross Output ($M)	509.7	667.3	157.6	31%
Gross Domestic Product ($M)	295.8	395.6	99.8	34%
Employment (Positions)	9799	10801	1001	10%
Labour Income ($M)	195.7	228.8	33.0	17%
Govt Revenues	94.0	115.3	21.2	23%

Table 4: Direct, Indirect, and Induced Provincial Impacts – Course Operations 2019

Course Operations Impacts 2019	
Gross Output ($M)	
Direct	146.5
Indirect	53.0
Induced	167.8
Total Gross Output	**367.3**
Gross Domestic Product ($M)	
Direct	79.6
Indirect	32.3
Induced	103.6
Total Gross Domestic Product	**215.4**
Employment (Positions)	
Direct	7,207
Indirect	398

Induced	970
Total Employment	**8,575**
Labour Income ($M)	
Direct	98.1
Indirect	15.8
Induced	40.5
Total Labour Income	**154.3**

Table 5: Direct, Indirect, and Induced Provincial Impacts – Capital Expenditures 2019

Course Capital Investment 2019	
Gross Output ($M)	
Direct	19.2
Indirect	5.9
Induced	6.6
Total Gross Output	**31.7**
Gross Domestic Product ($M)	
Direct	7.7
Indirect	3.4
Induced	4.1
Total Gross Domestic Product	**15.1**
Employment (Positions)	
Direct	65
Indirect	24
Induced	39
Total Employment	**128**
Labour Income ($M)	
Direct	4.1
Indirect	1.3
Induced	1.6
Total Labour Income	**7.0**

Table 6: Direct, Indirect, and Induced Provincial Impacts – Non-course Participant Spending 2019

Non-Course Participant Spending 2019	
Gross Output ($M)	
Direct	60.4
Indirect	18.0
Induced	32.3
Total Gross Output	**110.7**
Gross Domestic Product ($M)	
Direct	34.8
Indirect	10.6
Induced	19.9
Total Gross Domestic Product	**65.3**
Employment (Positions)	
Direct	824
Indirect	81
Induced	191
Total Employment	**1,096**
Labour Income ($M)	
Direct	22.5

Indirect	4.0
Induced	7.9
Total Labour Income	**34.4**

Table 7: Direct, Indirect, and Induced Provincial Impacts – Course Operations 2021

Course Operations Impacts 2021	
Gross Output ($M)	
Direct	198.2
Indirect	60.0
Induced	179.1
Total Gross Output	**437.3**
Gross Domestic Product ($M)	
Direct	122.6
Indirect	36.5
Induced	110.5
Total Gross Domestic Product	**269.6**
Employment (Positions)	
Direct	7,539
Indirect	450
Induced	1,036
Total Employment	**9,025**
Labour Income ($M)	
Direct	103.9
Indirect	17.8
Induced	43.2
Total Labour Income	**164.9**

Table 8: Direct, Indirect, and Induced Provincial Impacts – Capital Expenditures 2021

Course Capital Investment 2021	
Gross Output ($M)	
Direct	51.8
Indirect	15.9
Induced	17.9
Total Gross Output	**85.7**
Gross Domestic Product ($M)	
Direct	20.7
Indirect	9.2
Induced	11.0
Total Gross Domestic Product	**40.9**
Employment (Positions)	
Direct	175
Indirect	64
Induced	106
Total Employment	**346**
Labour Income ($M)	
Direct	11.1
Indirect	3.6

Induced	4.4
Total Labour Income	**19.0**

Table 9: Direct, Indirect, and Induced Provincial Impacts – Non-course Participant Spending 2021

Non-Course Participant Spending 2021	
Gross Output ($M)	
Direct	78.7
Indirect	23.4
Induced	42.2
Total Gross Output	**144.3**
Gross Domestic Product ($M)	
Direct	45.4
Indirect	13.8
Induced	25.9
Total Gross Domestic Product	**85.1**
Employment (Positions)	
Direct	1,074
Indirect	106
Induced	249
Total Employment	**1,429**
Labour Income ($M)	
Direct	29.3
Indirect	5.3
Induced	10.2
Total Labour Income	**44.8**

Detailed Impacts by Industry

Impacts by industry of golf in Saskatchewan are outlined in Tables 10 and 11. Note that these are combined direct, indirect, and induced impacts. The bulk of direct activity occurs within the Arts, Entertainment and Recreation, Construction, and Retail industries. Indirect impacts occur largely within the professional services and business services industries reflecting the high proportion of specialized services required for course operation. Induced impacts, which represent the additional impacts of consumer spending of wages earned, are concentrated heavily within the Retail Trade and service industries.

Table 10: Impacts by Industry – Course Operations, Capital Expenditure, and Participant Non-course Spending 2019

	Gross Output Impact ($M)	GDP at Basic Prices Impact ($M)	Employment Impact (Positions)	Labour Income Impact ($M)
Crop and Animal Production	5.7	2.4	14	0.2
Forestry and Logging	0.1	0.0	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and forestry	0.1	0.1	1	0.0
Mining and Oil and Gas Extraction	6.3	3.9	6	0.8
Utilities	14.6	9.6	18	2.1
Construction	26.8	10.7	91	5.7
Manufacturing	14.0	3.6	24	1.6
Wholesale Trade	8.8	5.8	36	2.6
Retail Trade	83.3	54.3	1036	32.5
Transportation and Warehousing	10.7	5.7	40	2.2
Information and Cultural Industries	9.2	4.9	33	2.4
Finance, Insurance, Real Estate and Rental and Leasing	90.8	63.1	180	11.4
Professional, Scientific and Technical Services	8.3	5.5	55	3.0
Administrative and Support, Waste Management and Remediation Services	6.0	3.3	64	2.2
Educational Services	0.5	0.3	10	0.2
Health Care and Social Assistance	7.0	4.8	53	1.9
Arts, Entertainment and Recreation	147.3	80.0	7217	98.4
Accommodation and Food Services	41.5	19.8	632	14.4
Other Services (Except Public Administration)	9.3	5.7	122	3.8
Operating, Office, Cafeteria and Laboratory Supplies	0.0	0.0	0	0.0
Travel, Entertainment, Advertising and Promotion	0.0	0.0	0	0.0
Transportation Margins	0.0	0.0	0	0.0
Non-Profit Institutions Serving Households	3.3	1.8	46	1.7

	Gross Output Impact ($M)	GDP at Basic Prices Impact ($M)	Employment Impact (Positions)	Labour Income Impact ($M)
Government Sector	16.1	10.3	121	8.4
Total	**509.7**	**295.8**	9799	**195.7**

Table 11: Impacts by Industry – Course Operations, Capital Expenditure, and Participant Non-course Spending 2021

	Gross Output Impact ($M)	GDP at Basic Prices Impact ($M)	Employment Impact (Positions)	Labour Income Impact ($M)
Crop and Animal Production	6.9	2.9	17	0.2
Forestry and Logging	0.2	0.1	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and forestry	0.1	0.1	1	0.0
Mining and Oil and Gas Extraction	9.2	5.8	9	1.1
Utilities	17.2	11.4	22	2.5
Construction	60.9	24.3	206	13.0
Manufacturing	17.4	4.6	31	2.0
Wholesale Trade	10.8	7.1	44	3.2
Retail Trade	101.5	66.1	1262	39.6
Transportation and Warehousing	13.0	6.9	49	2.7
Information and Cultural Industries	10.9	5.9	39	2.9
Finance, Insurance, Real Estate and Rental and Leasing	106.7	74.2	211	13.4
Professional, Scientific and Technical Services	11.3	7.5	75	4.1
Administrative and Support, Waste Management and Remediation Services	7.3	4.0	77	2.7
Educational Services	0.6	0.4	11	0.3
Health Care and Social Assistance	8.1	5.5	62	2.2
Arts, Entertainment and Recreation	199.4	123.1	7555	104.3
Accommodation and Food Services	52.0	24.8	791	18.1
Other Services (Except Public Administration)	10.8	6.6	142	4.4
Operating, Office, Cafeteria and Laboratory Supplies	0.0	0.0	0	0.0
Travel, Entertainment, Advertising and Promotion	0.0	0.0	0	0.0
Transportation Margins	0.0	0.0	0	0.0
Non-Profit Institutions Serving Households	3.9	2.1	53	2.0
Government Sector	19.0	12.2	143	9.9
Total	**667.3**	**395.6**	**10801**	**228.8**

Fiscal Impacts

Fiscal Module Description

An expansion in economic activity is expected to generate incremental government revenues, especially when wages and salaries comprise a significant portion of incremental gross domestic product. The economic impact model's fiscal module is based on the latest federal, provincial, and municipal budgets and estimates government revenues as follows:

- Personal income tax is calculated by using the provincial and federal personal income tax rate that would apply to average annual industry income. This is applied to model-generated labour income.
- Corporate income tax is calculated by applying the provincial and federal corporate tax rates to incremental corporate profits before taxes.
- Unincorporated business income taxes are calculated by applying the small business tax rate to incremental unincorporated business profits.
- Sales tax calculation is based on the ratio of provincial and federal sales taxes collected to retail trade gross output applied to incremental retail trade output.
- Fuel and tobacco revenues are calculated as a fixed ratio (based on budget figures of tobacco and fuel tax revenues to total sales tax revenue) multiplied by estimated sales tax revenues.

Provincial government royalties from non-renewable resources are excluded from this analysis. Estimates are not adjusted for any reduction in equalization.

Table 12: Government Revenue Impacts 2019

Government Revenue Impacts 2019	Personal Income Tax (PIT)	Corporate Income Tax	Unincorporated Business Income Tax	Sales and Excise Taxes	Total Revenue
Federal ($M)	29.6	2.1	7.0	5.8	**44.5**
Provincial ($M)	20.0	1.6	5.1	22.8	**49.5**
Total ($M)	**49.6**	**3.7**	**12.1**	**28.6**	**94.0**

Table 13: Government Revenue Impacts 2021

Government Revenue Impacts 2021	Personal Income Tax (PIT)	Corporate Income Tax	Unincorporated Business Income Tax	Sales and Excise Taxes	Total Revenue
Federal ($M)	35.5	4.7	8.5	7.1	**55.8**
Provincial ($M)	23.5	3.8	6.2	26.0	**59.5**
Total ($M)	**59.0**	**8.5**	**14.7**	**33.1**	**115.3**

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Statistics Canada. Table 381-0009 - Inputs and outputs, by industry and commodity, S-level aggregation and North American Industry Classification System (NAICS), annual (dollars) (table), CANSIM (database).

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Appendix A: Definitions and Model Description

Employment: measured in positions.

Final Demand: sum of personal expenditure, government purchases of goods and services, business and government investment, and net exports.

GDP (Gross Domestic Product) at factor cost: measure of net economic activity within a prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP at factor cost excludes the value of intermediate goods and services used in production.

GDP at market prices: GDP at factor cost plus indirect taxes less subsidies.

Gross Output: total expenditures on local goods and services as well as payments to labour and business profits. Gross output includes double counting because it includes the value of inputs used in production rather than net value added alone.

Direct Impact: total project expenditure, usually construction or operating outlays.

Indirect Impact: the secondary impact that includes inter-industry transactions, purchases of inputs from supporting industries.

Induced Impact: the additional impact from changes in household spending as industries modify labour input requirements in response to altered levels of demand for output.

Industry outputs are calculated as $(I-D(I-\mu-\alpha-\beta)B)^{-1}\ D((I-\mu-\alpha-\beta)e^{*}+(I-\mu-\beta)Xd+(I-\mu)Xr)=X$

Where:

I = an identity matrix of industry-by-industry dimension.

D = a matrix of coefficients representing commodity output proportions.

B= a matrix of coefficients representing commodity input proportions (technical coefficients) by industry.

μ = a diagonal matrix whose elements represent the ratio of imports to use.

α = a diagonal matrix whose elements represent the ratio of government production to use.

β = a diagonal matrix whose elements represent the ratio of inventory withdrawals to use.

e* = final demand categories of consumption, government purchases of goods and services, business and government investment, and inventory additions.

Xd = final demand category of domestic exports.

Xr = final demand category of re-exports.

Employment is calculated as a fixed number of positions per dollar of industry output.

Appendix B: Mixed Endogenous–Exogenous Input-Output Impacts

In a 3 industry x 3 industry input-output model with industry 3 exogenized, endogenous industry output and final demand XM

$$\begin{vmatrix} X1 \\ X2 \\ YL3 \end{vmatrix}$$

is calculated as follows:

XM =M-1 YM

Where M=

$$\begin{vmatrix} (1-aL11) & -aL12 & 0 \\ -aL21 & (1-aL22) & 0 \\ -aL31 & -aL32 & -1 \end{vmatrix}$$

AL= (D(I-μ-α-β)B)

YM=

$$\begin{vmatrix} YL1+aL13X3 \\ YL2+aL23X3 \\ -(1-aL33)X3 \end{vmatrix}$$

YL= D((I-μ-α-β)e*+(I-μ-β)Xd+(I-μ)Xr)

Where:
I = an identity matrix of industry by industry dimension
D = a matrix of coefficients representing commodity output proportions
B= a matrix of coefficients representing commodity input proportions (technical coefficients) by industry
μ = a diagonal matrix whose elements represent the ratio of imports to use
α = a diagonal matrix whose elements represent the ratio of government production to use
β = a diagonal matrix whose elements represent the ratio of inventory withdrawals to use
e* = final demand categories of consumption, government purchases of goods and services, business and government investment, and inventory additions.
Xd = final demand category of domestic exports
Xr = final demand category of re-exports.