Downtown Event & Entertainment District

Economic Impact Assessment of New Arena and Conference Centre Developments

August 2023

Prepared by:

PRAXIS

RESEARCH | STRATEGY | RESULTS

Suite 170 - 2 Research Dr.

Regina, SK S4S 7H9

DTN YXE DOWNTOWN SASKATOON

theChamber SASKATOON'S BIGGEST BUSINESS NETWORK

Table of Contents

Executive Summary 4
Key Findings & Messages 4
By the Numbers 5
Introduction 6
Background 6
Objectives of Study 6
The Facilities 7
Arenas & Conference Facilities as Economic Drivers 7
Impact Assessment Approaches and Summary of Results 8
Economic Impact Assessment (EIA) of Facility Construction and Operations 8
Scenario Analysis 1 - Tax Base Impacts 10
Scenario Analysis 2 - Consumer Spending Impacts 11
Scenario Analysis 3 - Costs of Inaction (Lost Opportunities) 11
Methodologies 13
Assessing Facility Economic Impacts 13
Assessing Tax Base Impacts 14
Assessing Consumer Spending Impacts 15
Assessing Lost Event Impacts 16
Conclusion 16
Appendix A – Detailed Results 17
EIA of Facility Construction and Operations 17
Impacts by Industry 21
Fiscal Impacts 27
Scenario Analysis 1 - Tax Base Impacts 29
Scenario Analysis 2 - Consumer Spending Impacts 31
Scenario Analysis 3 - Costs of Inaction (Lost Opportunities) 32
Appendix B – Economic Model Descriptions 33
Developing Community Level Input-Output Models 34
Developing Community/Regional Impact Models 36
Mixed Endogenous–Exogenous Input-Output Impacts 37
References 38

Statement of Objectivity and Third-Party Opinion

Praxis Consulting confirms that no influence or attempted influence was expressed by any stakeholders or other third parties in the preparation, execution, and reporting of this study. The facts, opinions, and potential outcomes presented in this report are those of Praxis Consulting and are intended to provide an objective assessment of the possible economic impacts generated by this urban development project.

Executive Summary

This Economic Impact Assessment provides an estimation of the potential economic impacts of a major capital investment in Downtown Saskatoon. The economic impact zone studied encompasses Saskatoon's Downtown District and the residential neighbourhoods of City Park, Nutana, Riversdale, and Caswell Hill. Impacts are primarily quantified in terms of the net-new or incremental effects on the city of Saskatoon and province of Saskatchewan over and above the current impacts created by the city's existing entertainment and conference facilities (i.e., SaskTel Centre and TCU Place).

Praxis Consulting conducted the analysis using data and assumptions provided by various stakeholders and trusted sources. The economic analyses conducted include:

- Economic Impact Assessment (EIA) of the construction and ongoing operation of the facilities;
- estimated population growth and municipal tax base impacts within the economic impact zone;
- evaluation of the economic impacts of increased consumer spending; and,
- assessment of the missed economic impacts from events that cannot be accommodated in the current facilities.

The proposed Downtown arena and convention centre will be a major entertainment venue in Saskatoon, serving as a hub for sporting events, concerts, live performances, and conventions. It will be part of the larger Downtown Event & Entertainment District (DEED), which aims to foster economic, cultural, and social success by offering diverse attractions and becoming a hub for commerce, tourism, services, and entertainment. The estimated total capital investment for the project is $950 million (in 2029 dollars) as determined by the City of Saskatoon and HLT Advisory in the 2018 report "An analysis of new and/or expanded event and convention facilities in Saskatoon" (https://tcuplace.com/wp-content/uploads/Final_Report.pdf).

Key Findings & Messages

- During construction, the proposed urban densification project will add $1.1 billion to Saskatoon's gross economic activity, $509 million to Saskatoon's GDP, $245.1 million to employment income (supporting 1,580 local jobs), and $178.4 million to government revenues ($95.5 million Federal, $ 61.1 million Provincial, and $21.7 million Municipal).
- Core operations of the facilities will add $4.3 million to Saskatoon's gross economic activity, $1.6 million to the City's GDP, $0.9 million to employment income (supporting 24 local jobs), and $3.81 million to government revenues ($1.83 million Federal, $1.55 million Provincial, and $0.42 million Municipal.)
- 1 in every 91 jobs in Saskatoon depending directly or indirectly on the new facilities.
- The potential incremental impacts to Saskatoon's downtown tax base and surrounding neighbourhoods are significant, with a possible fair market value increase of $2.7 billion to the properties in the impact zone by 2039, representing an annual average of $2.3 million in municipal property taxes annually.
- An incremental population boost of an additional 10,000 new and existing Saskatoon residents living in the Downtown ten years after construction is feasible. This could generate $322 million in consumer spending annually (2023 dollars), adding $213.7 million in gross economic activity, $132 million in GDP, $49.8 million to employment income (supporting 1,172 local jobs), and $2.5 million in municipal average annual tax revenues.
- The critical mass created by the DEED would likely increase the frequency of coinciding sold-out concert events and major 2-day conventions. These situations could generate 9,868 hotel room overnight bookings and $5.84 million (2023 dollars) in consumer spending. Economically speaking,

this translates to $8.3 million in gross economic activity, $5.6 million in GDP, and $2.8 million in employment income (supporting 86 full- and part-time jobs).

By the Numbers

The study found that for the City of Saskatoon, the construction of the facilities will add:

- $1.1 billion in gross economic activity;
- $509 million in GDP;
- 1,580 Full-Time Equivalency jobs;
- $245.1 million in employment income; and,
- $21.7 million in municipal government revenues.

For the city of Saskatoon, once the facilities are open, core operations are expected to add (over and above the current facilities each year):

- $4.3 million in gross economic activity;
- $1.6 million in GDP;
- 24 local jobs;
- $0.9 million in employment income; and,
- $0.42 million in government revenues.

Furthermore, in the decade following construction, the DEED has the potential to attract an additional 10,000 residents moving Downtown over the natural population growth rate, generating $322 million in consumer spending annually (2023 dollars) within the city, creating:

- $213.7 million in gross economic activity;
- $132 million in GDP;
- 1,172 local jobs;
- $49.8 million in employment income;
- $2.5 million in municipal average annual tax revenues over the decade following construction of the arena and convention centre; and,
- 261 new residential and commercial buildings.

According to the management of the SaskTel Centre and TCU Place, Saskatoon is passed over by several large touring acts and major conferences/conventions each year because of the physical limitations of the existing facilities.

For music and entertainment events at the SaskTel Centre, each missed opportunity could have produced:

- Overnight hotel bookings from 8,448 out-of-town spectators;
- $5 million (2023 dollars) in consumer and event spending;
- $7.6 million in gross economic activity; and,
- $4.4 million in GDP.

For major 2-day, 1,000 attendee conferences or conventions at TCU Place, each lost bid costs Saskatoon potential impacts of:

- 1,420 hotel room overnight bookings by out-of-town spectators;,
- $0.84 million (2023 dollars) in consumer and event spending;
- $1.2 million in gross economic activity; and,
- $0.7 million in GDP.

Overall, the construction and operation of the new event arena and convention center have the potential to bring substantial economic benefits to the city of Saskatoon and the province of Saskatchewan. The project would create jobs, attract visitors, stimulate local spending, generate tax revenue, and contribute to the growth and development of the Downtown district. It is crucial for decision-makers to consider the potential economic impacts and take necessary actions to maximize the benefits for the community.

Introduction

Background

Downtown Saskatoon (DTNYXE) is seeking to identify the potential economic impacts realized by the Province of Saskatchewan, the City of Saskatoon, and the Downtown Event & Entertainment District (DEED) regarding a major capital investment of a new multi-use event arena and new convention centre located near the site of the current TCU Place. While the City of Saskatoon and its Technical Advisors continue to develop the conceptual design and budgetary cost estimates, this analysis assumes $950 million in total capital investment (2029 dollars).

Praxis Consulting was engaged to research and identify the economic impacts generated through the construction and operation of these two facilities (assumed to open in 2030), and the potential population growth, property value increases, and intensified consumer spending impacts on Saskatoon's Central Business District (CBD) and surrounding neighbourhoods including City Park, Nutana, Riversdale, and Caswell Hill.

The Praxis Saskatchewan Input-Output Model was used to measure the provincial economic impacts associated with the construction and operations of the facility (inputs) and visitor expenditures once operational (outputs). A community-level economic model assesses event impacts at the regional Saskatoon level, including the revenue and expenses of the facility operation, the consumer spending (of specifically out-of-town visitors to Saskatoon – anyone living outside 50km of the city), and the associated spin-off impacts.

Objectives of Study

Using actual data and informed assumptions provided by DTNYXE, SaskTel Centre, TCU Place, Discover Saskatoon, Midtown Mall, other trusted sources, and publicly available information from the City pf Saskatoon and Statistics Canada and other online sources, Praxis performed a series of economic analyses, including:

1. An Economic Impact Assessment (EIA) of the impacts from the construction and operation of the two facilities starting in 2030 on Saskatoon's and Saskatchewan's Gross Domestic Product (GDP), Gross Economic Output (GO), Jobs, Employment Income, and Tax Revenues;
2. A hypothetical scenario estimating the incremental population growth and municipal tax base impacts of the two intensification projects;
3. A hypothetical scenario estimating the economic impacts from an increase in consumer spending by self-selected new households attracted by the DEED's amenities and an increase in tourist spending by event attendees; and,
4. A hypothetical scenario estimating the economic impacts missed from concerts, conferences, and other large events that cannot be accommodated in the present SaskTel Centre and TCU Place facilities.

The Facilities

The Downtown Arena in Saskatoon is a major entertainment venue located in the heart of the city. It serves as a hub for various sporting events, concerts, and other live performances. The arena attracts both local residents and out-of-town visitors, contributing to the city's vibrant cultural scene and generating economic benefits. The proposed DEED aims to bring people and businesses together, fostering economic, cultural, and social success for the city and its surroundings. The DEED will be seamlessly connected to the rest of the city through the upcoming Bus Rapid Transit (BRT) system. The DEED's vision is to become a hub for commerce, tourism, services, and entertainment, offering a diverse range of attractions, including major arena events, shopping, restaurants, conventions, nightlife, and a thriving business community. The development of a new Downtown event centre/arena, an improved convention centre, and the future BRT system will serve as public infrastructure investments that will spur further growth in the DEED, benefiting Saskatoon and Saskatchewan as a whole.

Seating capacity for sports, concerts, and other events is expected to be approximately 16,700 seats (15,000 general seating and 1,700 premium seating such as suites, lounge boxes, and theatre boxes). End-stage concert seating capacity is estimated at 14,500. The annual event days of this caliber are expected to increase from 120 (current) to 130. The total annual attendance is also expected to increase from between 350,000 to 500,000 (current), to between 400,000 to 550,000.

Although capacity and programmatic space details of a replacement building of TCU place are unknown, TCU Place expects a $1 million jump in revenues from a new facility to a total of $12 million. This increase is due to an increase in the number and size of conferences plus increased activity in the theatre and convention centre. Annual event days of this facility are expected to increase from 200 days to 230 days with annual attendance moving from 230,000 to 260,000.

Arenas & Conference Facilities as Economic Drivers

Arenas and entertainment/conference facilities have a proven track record as significant drivers of economic growth for cities and regions, offering numerous benefits to the local economy (Bully, J. (2002), Feng, X., & Humphreys, B. (2016)). These facilities stimulate local spending by hosting regular sporting events, concerts, shows, and conferences, which draw in contributions to the economy through ticket purchases, merchandise sales, and concessions. These facilities also create employment opportunities across various sectors, such as management, operations, maintenance, security, concessions, and event staffing, providing residents with increased income. Additionally, when arenas and convention centres host events, they attract visitors from outside the area, leading to an increase in tourism and generating revenue for local businesses. These visitors spend money on accommodation, dining, transportation, and shopping, which benefits hotels, restaurants, retailers, and service providers.

This local spending supports nearby businesses and stimulates economic activity within the community. The presence of an arena can also spark additional development in the surrounding area, attracting hotels, restaurants, entertainment venues, and retail establishments that capitalize on the increased foot traffic and demand generated by the facility.

In terms of tax revenue, arenas contribute to local governments funds through the sales taxes on tickets, concessions, and merchandise, as well as user and franchise fees. Similarly, convention centres generate tax revenue sales tax on rentals, catering, and other services. These funds can be used to invest in public services, infrastructure, and community initiatives, further benefiting the local economy. Additionally, hosting high-profile events enhances the city's reputation and increases its visibility on a national or

international scale. This positive branding can attract businesses, investors, and tourists, leading to additional economic opportunities and overall growth.

In summary, these facilities play a pivotal role in a community's economic prosperity on a larger scale, contributing to trade and investment outcomes, innovation, job creation, and tourist visitation. They serve as platforms for domestic and international visitation, facilitate small business growth, encourage knowledge sharing and collaboration, and provide opportunities for international trade and investment. It is vital to recognize that the economic impact of arenas and convention facilities can vary based on various factors, such as location, size, event frequency, and the overall economic climate. To maximize the economic benefits of these facilities, proper planning, effective management, and active community engagement are crucial to its operations.

Impact Assessment Approaches and Summary of Results

A series of analysis methods and approaches were used to create a fulsome understanding of the potential economic impacts this project could have at the neighbourhood, city, and provincial levels.

Economic Impact Assessment (EIA) of Facility Construction and Operations

Using information provided by the SaskTel Centre and TCU Place, the gross or "stand-alone", and incremental or "over-and-above" economic impacts of the arena and convention centre's construction and annual operations have been estimated using Praxis' Saskatchewan Economic Impact Model. Outputs are described in terms of the stand-alone and incremental cumulative direct, indirect, and induced impacts on the City of Saskatoon's and the Province of Saskatchewan's:

- gross output;
- gross domestic product;
- labor income and employment;
- economic impacts from consumer spending; and,
- fiscal impacts for three levels of government (Municipal, Provincial, and Federal).

The gross economic impacts derived from the combined construction and annual operations are found to be:

Gross Economic Impacts of Construction	Saskatchewan	Saskatoon
Gross Output ($M)	1,364.6	1,114.0
Gross Domestic Product ($M)	660.1	509.1
Employment (in annual FTEs during construction)	2031	1580
Employment income ($M)	308.9	245.1

Gross Economic Impacts of Operations	Saskatchewan	Saskatoon
Gross Output ($M)	58.5	52.2
Gross Domestic Product ($M)	23.3	19.4
Employment (in Positions)	1252	1217
Employment income ($M)	12.1	10.6

Gross Economic Impacts of Consumer Spending	Saskatchewan	Saskatoon
Gross Output ($M)	82.7	67.3

Gross Domestic Product ($M)	47.8	38.5
Employment (in Positions)	730	645
Employment income ($M)	24.3	20.4

Government Revenue Impacts of Construction	Personal Income Tax	Corporate Income Tax	Taxes on Unincorporated Business Profits	Sales and Excise Taxes	Total Revenue
Federal ($M)	64.89	9.99	16.73	3.89	95.51
Provincial ($M)	35.22	7.99	12.07	5.85	61.13
	Taxes	User Charges	Other	Total Revenue	
Municipal ($M)	6.39	10.9	4.45	21.74	
Total				178.39	

The incremental economic impacts derived from annual operations are found to be:

Incremental Economic Impacts of Operations	Saskatchewan	Saskatoon
Gross Output ($M)	5.1	4.3
Gross Domestic Product ($M)	2.1	1.6
Employment (in Positions)	91	86
Employment income ($M)	1.1	0.9

Incremental Economic Impacts of Consumer Spending	Saskatchewan	Saskatoon
Gross Output ($M)	17.9	14.6
Gross Domestic Product ($M)	10.4	8.3
Employment (in Positions)	159	141
Employment income ($M)	5.3	4.4

Government Revenue Impacts of Operations	Personal Income Tax	Corporate Income Tax	Taxes on Unincorporated Business Profits	Sales and Excise Taxes	Total Revenue
Federal ($M)	1.05	0.19	0.26	0.33	1.83
Provincial ($M)	0.66	0.15	0.19	0.55	1.55
	Taxes	User Charges	Other	Total Revenue	
Municipal ($M)	0.12	0.21	0.08	0.07	**0.42**
Total					**3.81**

Scenario Analysis 1 - Tax Base Impacts

Major intensification projects such as this are expected to impact the local economy in two primary ways. First, they typically increase property values in the surrounding area because of increased commercial demand for the land and increased consumer spending from higher traffic. Second, they disproportionately increase local residential population growth through densification, resulting from people wanting to live closer to the new amenities and/or related jobs. This boosted in-migration and disproportionate densification has a lasting impact on the area's demographics through changes in the natural increase (births minus deaths), which, in turn, has a circular effect on the demand for goods and services in the surrounding neighbourhoods.

To quantify the impact that potential increases in population, property counts, and property values could have on the DEED, Praxis developed a hypothetical scenario using real data and conservative informed assumptions to establish pre-construction baselines and estimate potential incremental post-construction growth.

Using the population growth projection calculations detailed in the "Estimating Incremental Population Growth" section on page 28 of this report, this scenario assumes 10,000 incremental residents will move into the downtown and surrounding neighbourhoods over and above the natural growth rate during a ten-year period following construction. These in-migrated residents may have come from outside the city as new Saskatoon residents or moved from another area of the city. To account for the neutralizing effect of in-city migration, the assumption is that the Saskatoon residence outside the DEED being vacated will directly or indirectly be filled by someone new to Saskatoon.

This scenario recognizes that there is little undeveloped land in the downtown and surrounding neighbourhoods to build single-family homes and that nearly all the new housing required will be multi-family condominiums and apartment buildings. Details outlining the assumptions and analysis methods are described in the methodology section below.

Single Family Residences (SFR) are held at 2023 levels due to the unavailability of infill and vacant lots in the study area; however, the incremental value increase of existing properties is significant.

Multi Family Residences (MFR) are assumed to hold an average of 96 two-bedroom units per building.

Incremental Property Count & Value Growth			
2029 - 2039			
Property Type	**Property Count**	**Fair Market Value**	**Municipal Tax Levies**
SFR	0	$ 850,809,654	$ 8,489,080
MFR	35	$ 289,058,587	$ 2,908,410
Commercial	226	$ 1,565,962,675	$ 25,291,947
Total	**261**	**$ 2,705,830,916**	**$ 36,689,437**

Scenario Analysis 2 - Consumer Spending Impacts

Event facilities that are used as hubs for commerce, tourism, services, and entertainment to feature major arena events, shopping, restaurants, conventions, nightlife, and a thriving business community will attract new residents to the downtown core. An understanding the potential impacts of consumer spending is crucial as these facilities serve as a key driver of economic growth by contributing to aggregate demand in the economy. By analysing consumer spending patterns, the overall health and performance of the economy can be assessed. Additionally, consumer spending directly impacts employment and job creation. When consumers spend money, businesses respond by increasing production, leading to the creation of new jobs.

This scenario explores the post-construction economic impacts from the consumer spending of 10,000 incremental residents living in the neighbourhoods in the zone of influence, plus the spending of local and out-of-town visitors who attending concerts, conferences, and events in the new facilities. Details outlining the assumptions and analysis method are described in the methodology section below.

In this scenario, the annual incremental impacts on Saskatoon and Saskatchewan's economy are:

New Resident Economic Impacts	Saskatchewan	Saskatoon
Gross Output ($M)	359.5	213.7
Gross Domestic Product ($M)	221.7	132
Employment (Positions)	2,010	1,172
Employment income ($M)	86.8	49.8

Scenario Analysis 3 - Costs of Inaction (Lost Opportunities)

This scenario quantifies the economic impacts of missed opportunities from performances and events that choose to skip Saskatoon but would otherwise come to City if there were the appropriate venues.

SaskTel Centre

Based on the results of an average attendance of 13,000 spectators and the average split of local to out-of-town attendees of the Elton John, Eric Church, Backstreet Boys, and Shania Twain concerts in Saskatoon (60.5% out-of-town), for each lost opportunity, Saskatoon misses out on roughly $5 million in consumer and event spending.

Out-of-town visitors mainly come from within 250 km of the City and may be staying in hotels or with friends and family for up to two nights.

Economic Impacts of Inaction	Saskatchewan	Saskatoon
Gross Output ($M)	9.3	7.6
Gross Domestic Product ($M)	5.5	4.4
Overnight Stays by Out-of-Town Visitors		8,448
Consumer Spending ($M)		5.0

TCU Place

Based on the results of an average attendance of 1,000 participants attending a 2-day conference or convention in Saskatoon and the average attendance by out-of-town attendees (70%), for each lost opportunity, Saskatoon misses out on an estimated 1,420 hotel room bookings and associated spending by out-of-town attendees.

Conference event spending differs from concert events as out-of-town attendees often come from outside 250 km of the City and rarely stay with local friends and family.

Economic Impacts of Inaction	Saskatchewan	Saskatoon
Gross Output ($M)	1.5	1.2
Gross Domestic Product ($M)	0.9	0.7
Hotel Room Nights		1420
Consumer Spending ($M)		0.84

Methodologies

Assessing Facility Economic Impacts

This analysis presents results based on standard methodologies for estimating economic contributions for sub-national geographies.

To estimate the impact of the new facilities, Praxis' provincial economic model was employed, which uses the latest provincial and national input-output tables. Input-output analysis is a form of macroeconomic evaluation based on the interdependencies between different economic sectors or industries. This method is commonly used for estimating the impacts of positive or negative economic shocks and analysing the ripple effects throughout an economy. The Saskatchewan model contains 35 industries and 66 commodities. These models are based on a standardized method published by Statistics Canada and yield results like Statistics Canada's inter-provincial model and the Conference Board of Canada's STEAM Model. Model descriptions and definitions are available in Appendix B.

In addition to the provincial core model, Praxis has developed several satellite modules. One relevant module to this project is the fiscal module, which provides a more thorough representation of the impact of a project on government revenues. Typical economic impact models will only provide results in terms of indirect taxes. Praxis' economic impact model extends this to include personal income taxes, corporate and unincorporated business taxes, as well as resource revenues, and excise taxes. The fiscal module is updated annually upon the release of the federal and provincial government budgets.

A separate economic impact model was developed to represent the economy of the Saskatoon region. This is based on a regional share of the 2019 provincial economy (the latest data available) and is square in dimension with 25 industries. A detailed discussion on the development of sub-provincial input-output models is available in Appendix B.

Facility Construction Impact

Capital spending impacts are calculated as a demand shock to the input-output model's final demand categories of estimated construction costs. Capital outlays are also adjusted downward using model default import and inventory withdrawal leakages.

Capital costs were projected to 2029 dollars using historic data from the 2018 HLT Advisory and a mix of actual and assumed annual Cost Price Index (CPI) escalations. Annual inflation increases between 2017 and 2023 were applied to escalated costs to today's dollars. Due to the ongoing high inflationary pressures experienced by the Canadian and Saskatchewan economies and little signs of slowing, a cautionary 6.5% annual CPI increase was applied from 2024 to 2029.

Cost Component ($M)	Est. Cost (2017)	Est. Cost (2023)	Est. Cost (2029 rounded)
New Event Centre	177.90	219.83	320.00
New Convention Centre	88.04	108.79	159.00
Theatre Renovations	18.35	22.68	33.50
Additional Parking	7.75	9.57	14.00
Fees	29.20	36.08	53.00
Furniture, Fixtures, and Equipment	17.52	21.65	32.00
Offsite	1.89	2.34	3.50

Demolition, Related Transaction Costs	34.06	42.09	61.50
Contingency Allowance (30%)	112.42	138.92	203.00
Land	39.00	48.19	70.50
TOTAL	**526.13**	**650.14**	**950.00**

Source: HLT Advisory Report, 2018

Facility Operation Impact

Operational impacts were calculated by creating a mixed endogenous–exogenous model. This approach allows for the modification of the input structure of the expanding industry to reflect the output and input structure of new developments. This approach is appropriate when the input structure of the operations differs from the input structure of the impacted industry. Under this approach, gross expenses or revenues are treated as industry gross output. As well, expenses are assigned to either inter-industry purchases or final value-added (wages, amortization, and profits). In the case of the facility, the directly impacted industry is the Arts, Entertainment, and Recreation industry, which includes entertainment, sports events, and trade shows. A detailed account of the mixed endogenous–exogenous model methodology is available in Appendix B.

Both TCU Place and SaskTel Centre provided operating financial information. SaskTel Centre reported revenues of $23.6 million, expenses of $22.5 million, and direct employment of 800 part-time and contracted staff members. TCU Place provided estimates of new revenues of $12 million against current revenues of $11 million and expenses of $10 million. Total expenses are scaled up based on the increase in revenues. The same estimation procedure is applied to the direct employment of 267 positions, resulting in new employment of 24 positions. Expenses are allocated by category based on the 2018 study. Imports of expenses from outside the province and region are based on the default model import leakage for the Arts, Entertainment, and Recreation industry. The difference between revenues and expenses is assigned to operating surplus or profit.

Assessing Tax Base Impacts

Using the population projections detailed in the Scenario One analysis found in Appendix A, this scenario assumes 10,000 incremental residents will move into the downtown and surrounding neighbourhoods over and above the natural growth rate during a ten-year period following construction. The scenario recognizes that there is little undeveloped land in the downtown and surrounding neighbourhoods to build single family homes and that nearly all the new housing required will be developed as 8-12 story multi-family condominium and apartment buildings.

- Growth of single-family homes was held flat from 2023 -2039 due to very few infills and vacant lots in the area.
- Multi-family unit occupancy is assumed to average 3 individuals with an average number of 96 units per building.
- Multi-family natural growth rate is expected to average 1 new structure per year.
- 35 new buildings or 3 additional buildings constructed annually over and above the natural rate are required to meet demand.
- Commercial properties were assumed to grow at 2% per year over a natural 1% annual growth rate.
- Fair Market Value increases were assumed to increase at 2% above a 1% natural growth rate for all properties in the study area.
- Municipal tax levies were estimated using the Mill Rates for each property type as determined by the Saskatoon Assessment Model.

Assessing Consumer Spending Impacts

Visitor Spending Impact

The economic impact of tourism begins when a visitor to an area spends any amount of money on any product or service in that area. The direct recipients of visitor expenditures use these dollars to earn income, pay wages, and pay taxes thus creating a direct impact on the local economy. The benefits to the local economy extend beyond the direct impact of these dollars, thus, visitor expenditures create a chain effect. When businesses and their employees spend their income in the region (either through businesses purchasing from suppliers or employees spending their wages in the region), they create indirect and induced impacts by supporting additional jobs, wages, salaries, proprietary income, and tax revenues. The sum of the direct, indirect, and induced impact equals the total economic impact of traveler expenditures.

Direct tourism expenditures were derived as follows:

- SaskTel Centre visitor spending was based on the 2018 study conducted by HLT Advisory's best-case scenario for a new arena. Hockey, lacrosse, family/comedy, and "other" visitor split by origin was based on a similar-sized western Canadian facility. Visitor by origin was based on the average of four concerts at SaskTel Centre: Elton John, Eric Church, Backstreet Boys, and Shania Twain. Visitor spending by origin was based on Statistics Canada data for Hockey, lacrosse, family/comedy, and "other. Concert visitor spending was based on the Shania Twain concert guest survey data.
- TCU Place visitor by origin was estimated using the 2018 Praxis study times the assumed revenue increase. Convention attendance used the HLT study stabilized year attendance.
- Statistics Canada's 2019 National Travel Survey of Canada (NTS) data for Canadian and Saskatchewan visitor spending per visitor per trip by category was used to break down total spending into auto transportation, accommodation, food and beverage, amusement and recreation, and retail. Visitor Travel Survey (VTS) spending data was applied to spending from US visitors. These were inflated to 2030 levels.
- NTS spending per visitor per trip was aggregated into input-output commodities/industries: Retail Trade, Arts, Entertainment and Recreation, Accommodation and Food Services multiplied by the number of days/nights.
- It was assumed that there is sufficient capacity (hotel rooms and restaurants) within the Saskatoon Regional economy to accommodate non-local spending. As a result, direct impacts were not adjusted by imports from outside of the region. However, indirect and induced impacts were adjusted for leakages, reflecting purchases by directly impacted businesses from outside the region and out-of-region shopping by directly and indirectly impacted employees.
- Non-local Saskatchewan residents were included in tourism impacts at the provincial level under the assumption that these expenditures would not have been made in the province in the absence of the facility. Spending by local residents is implicitly included in operational impacts as this ticket and food and beverage spending supported the facility's operations.

Attendance by Origin - New Arena	Base Case 2014-2016 Average	New	Increment	Saskatchewan Non-Local	Out of Province
Hockey	100,800	115,200	14,400	720	144
Lacrosse	85,500	103,500	18,000	900	180
Concerts	155,736	212,500	56,764	28,326	8,562

Family/Comedy	44,405	112,500	68,095	4,767	681
Other	12,083	35,000	22,917	1,604	229

Source: HLT and Praxis

Attendance by Origin - New Entertainment/Conference Facility – Non-Convention	Non-Local	Increment
Person-nights (visitors from within Province)	79,724	7,248
Person-nights (visitors from Other Provinces)	14,893	1,354
Person-nights (visitors from US)	974	89

Source: TCU Place and Praxis

Attendance by Origin - New Entertainment/Conference Facility – Convention	Base Case 2014-2016 Average	Stabilized Year	Increment
Local	7,242	7,200	0
Provincial	13,547	19,000	5,453
National	2,767	4,500	1,733
International	1,108	1,600	492

Source: TCU Place and Praxis

Assessing Lost Event Impacts

The same methodology used to calculate the economic impacts of operations described above was applied here.

Conclusion

The proposed development of a new multi-use event arena and convention centre in Saskatoon's CBD presents significant economic opportunities for the Province of Saskatchewan, the City of Saskatoon, and the neighbourhoods surrounding Downtown. The economic analyses have revealed that the project will have substantial positive impacts on Saskatoon's and Saskatchewan's economy.

The economic impact of the project extends beyond direct benefits, as the development of the DEED will attract visitors, stimulate tourism, and increase consumer spending. The presence of the new facilities will not only support local businesses but also contribute to ancillary development in the surrounding area, fostering further growth and generating additional economic opportunities. Moreover, the project will enhance the city's reputation and image through the hosting of high-profile events, which can attract businesses, investors, and tourists. The positive branding associated with the DEED will contribute to the long-term economic prosperity of Saskatoon and create a platform for international trade, investment, and collaboration.

Considering the substantial economic impacts identified in this study, it is evident that the investment in the new multi-use event arena and convention centre is a strategic decision that aligns with the objectives of fostering economic, cultural, and social success for Downtown Saskatoon and its surroundings.

Appendix A – Detailed Results

EIA of Facility Construction and Operations

The results below are the direct, indirect, and induced impacts of the new facilities. This includes facility construction, operations, and visitor spending for Saskatchewan and the Saskatoon Region. All impacts are considered relative to the existing facility (incremental) and hypothetical Base Cases: no facilities (gross). Results are expressed in 2030 dollars.

Table Terminology Explained

Gross output measures total expenditures on local goods and services plus payments to labour and business profits. Gross output is the total value of goods and services produced by an industry. It 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 of 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. Employment income includes wages, salaries, and employer contributions to pensions and benefit packages.

A simple example illustrates how gross output differs from GDP. A baker buys water, eggs, and flour which she uses to make bread. The baker sells the bread to households and the baker's gross output is the revenue earned from the bread sale. Intermediate inputs are calculated as the cost of water, eggs, and flour for the baker, and value added is calculated as the difference between revenue earned and the cost of intermediate inputs. Because gross output can include sales to other industries, it can be duplicative in nature. An industry's value added is defined as the total value of an industry's production less the cost of inputs purchased from other industries and eliminates this duplication.

Economic model results are shown in the tables below.

Facility Construction Economic Impacts - Saskatchewan and Saskatoon Region:

Facility Construction Economic Impacts	Province	Saskatoon Region
Gross Output ($M)		
Direct	821.0	801.4
Indirect	244.8	158.2
Induced	298.7	154.4
Total Gross Output	**1,364.6**	**1,114.0**
Gross Domestic Product ($M)		
Direct	333.7	322.0
Indirect	142.3	91.7
Induced	184.2	95.4
Total Gross Domestic Product	**660.1**	**509.1**
Employment (annual FTEs during construction)		

Direct	1,143	1,096
Indirect	332	201
Induced	557	282
Total Employment	**2,031**	**1580**
Employment income ($M)		
Direct	181.7	174.9
Indirect	55.1	34.2
Induced	72.1	36.0
Total Employment income	**308.9**	**245.1**

Facility Operation Economic Impacts - Saskatchewan and Saskatoon Region (Incremental):

Facility Operation Economic Impacts	Province	Saskatoon Region
Gross Output ($M)		
Direct	3.2	3.2
Indirect	0.7	0.4
Induced	1.2	0.6
Total Gross Output	**5.1**	**4.3**
Gross Domestic Product ($M)		
Direct	1.0	1.0
Indirect	0.4	0.2
Induced	0.7	0.4
Total Gross Domestic Product	**2.1**	**1.6**
Employment (Positions)		
Direct	81	81
Indirect	3	2
Induced	6	3
Total Employment	**91**	**86**
Employment income ($M)		
Direct	0.6	0.6
Indirect	0.2	0.1
Induced	0.3	0.1
Total Employment income	**1.1**	**0.9**

Visitor Spending Economic Impacts - Saskatchewan and Saskatoon Region (Incremental):

Visitor Spending Economic Impacts	Province	Saskatoon Region
Gross Output ($M)		
Direct	9.8	9.8
Indirect	3.0	2.0
Induced	5.1	2.8
Total Gross Output	**17.9**	**14.6**
Gross Domestic Product ($M)		
Direct	5.4	5.4

Indirect	1.8	1.2
Induced	3.1	1.7
Total Gross Domestic Product	**10.4**	**8.3**
Employment (Positions)		
Direct	117	117
Indirect	14	9
Induced	28	15
Total Employment	**159**	**141**
Employment income ($M)		
Direct	3.4	3.4
Indirect	0.7	0.4
Induced	1.2	0.7
Total Employment income	**5.3**	**4.4**

Facility Construction Economic Impacts - Saskatchewan and Saskatoon Region (Gross):

Facility Construction Economic Impacts	Province	Saskatoon Region
Gross Output ($M)		
Direct	821.0	801.4
Indirect	244.8	158.2
Induced	298.7	154.4
Total Gross Output	**1,364.6**	**1,114.0**
Gross Domestic Product ($M)		
Direct	333.7	322.0
Indirect	142.3	91.7
Induced	184.2	95.4
Total Gross Domestic Product	**660.1**	**509.1**
Employment (annual FTEs during construction)		
Direct	1,143	1,096
Indirect	332	201
Induced	557	282
Total Employment	**2,031**	**1580**
Employment income ($M)		
Direct	181.7	174.9
Indirect	55.1	34.2
Induced	72.1	36.0
Total Employment income	**308.9**	**245.1**

Facility Operation Economic Impacts – Saskatchewan and Saskatoon Region (Gross):

Facility Operation Economic Impacts	Province	Saskatoon Region
Gross Output ($M)		
Direct	38.3	38.3
Indirect	6.7	6.1
Induced	13.4	7.7
Total Gross Output	**58.5**	**52.2**
Gross Domestic Product ($M)		
Direct	11.1	11.1
Indirect	3.8	3.5
Induced	8.3	4.8
Total Gross Domestic Product	**23.3**	**19.4**
Employment (Positions)		
Direct	1,148	1,148
Indirect	31	28
Induced	73	41
Total Employment	**1,252**	**1,217**
Employment income ($M)		
Direct	7.1	7.1
Indirect	1.8	1.6
Induced	3.2	1.8
Total Employment income	**12.1**	**10.6**

Visitor Spending Economic Impacts - Saskatchewan and Saskatoon Region (Gross):

Visitor Spending Economic Impacts	Province	Saskatoon Region
Gross Output ($M)		
Direct	45.3	45.3
Indirect	13.8	9.2
Induced	23.5	12.9
Total Gross Output	**82.7**	**67.3**
Gross Domestic Product ($M)		
Direct	25.2	25.2
Indirect	8.2	5.4
Induced	14.5	8.0
Total Gross Domestic Product	**47.8**	**38.5**
Employment (Positions)		
Direct	534	534
Indirect	64	39
Induced	131	71
Total Employment	**730**	**645**

Employment income ($M)		
Direct	15.5	15.5
Indirect	3.2	2.0
Induced	5.7	3.0
Total Employment income	**24.3**	**20.4**

Impacts by Industry

The impacts of the facilities on the local economy are pervasive and widespread. The tables below provide the total (sum of direct, indirect, and induced) by industry. For construction, the bulk of activity occurs in the construction industry, with smaller impacts in finance, professional services, and manufacturing. For the event operations, direct impacts are recorded in the Arts, Entertainment and Recreation industry, with indirect impacts prominent in Finance, Insurance, Real Estate and Rental and Leasing, and Professional, Scientific and Technical Services industries. In the case of visitor spending, the bulk of direct activity occurs within the Retail Trade and Accommodation and Food industries but limited further impacts (indirect) occur within Finance, Insurance, Real Estate and Rental and Leasing, and Administrative and Support, Waste Management and Remediation Services, and Professional Services.

Impacts by Industry – Facility Construction – Saskatoon Region (Incremental):

Industry	Gross Output ($M)	GDP at Basic Prices ($M)	Employment (Positions)	Employment income ($M)
Crop and Animal Production	3.9	1.5	9	0.2
Forestry and Logging	0.0	0.0	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and Forestry	0.0	0.0	0	0.0
Mining and Oil and Gas Extraction	34.3	22.0	33	3.5
Utilities	12.7	8.5	16	1.7
Construction	769.0	301.2	3076	163.9
Manufacturing	33.3	8.9	57	3.8
Wholesale Trade	13.8	9.0	59	4.1
Retail Trade	37.3	24.4	412	14.7
Transportation and Warehousing	22.7	12.0	71	4.7
Information and Cultural Industries	10.0	5.8	40	2.7
Finance, Insurance, Real Estate and Rental and Leasing	82.3	57.4	153	10.3
Professional, Scientific and Technical Services	55.1	36.6	352	20.2
Administrative and Support, Waste Management and Remediation Services	9.6	5.4	107	3.9
Educational Services	0.6	0.4	13	0.2

Health Care and Social Assistance	2.4	1.7	17	0.6
Arts, Entertainment and Recreation	3.7	1.8	48	1.2
Accommodation and Food Services	13.2	6.2	193	4.5
Other Services (Except Public Administration)	1.0	0.6	13	0.4
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	0.5	0.3	7	0.3
Government Sector	8.3	5.3	63	4.2
Total	**1,114.0**	**509.1**	**4,739**	**245.1**

Impacts by Industry – Facility Operations – Saskatoon Region (Incremental):

Industry	Gross Output ($M)	GDP at Basic Prices ($M)	Employment (Positions)	Employment income ($M)
Crop and Animal Production	0.0	0.0	0	0.0
Forestry and Logging	0.0	0.0	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and Forestry	0.0	0.0	0	0.0
Mining and Oil and Gas Extraction	0.0	0.0	0	0.0
Utilities	0.2	0.1	0	0.0
Construction	0.1	0.0	0	0.0
Manufacturing	0.1	0.0	0	0.0
Wholesale Trade	0.0	0.0	0	0.0
Retail Trade	0.1	0.1	1	0.0
Transportation and Warehousing	0.0	0.0	0	0.0
Information and Cultural Industries	0.0	0.0	0	0.0
Finance, Insurance, Real Estate and Rental and Leasing	0.3	0.2	0	0.0
Professional, Scientific and Technical Services	0.0	0.0	0	0.0
Administrative and Support, Waste Management and Remediation Services	0.0	0.0	0	0.0
Educational Services	0.0	0.0	0	0.0

Health Care and Social Assistance	0.0	0.0	0	0.0
Arts, Entertainment and Recreation	3.2	1.0	81	0.6
Accommodation and Food Services	0.1	0.0	1	0.0
Other Services (Except Public Administration)	0.0	0.0	0	0.0
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	0.0	0.0	0	0.0
Government Sector	0.1	0.1	1	0.0
Total	**4.3**	**1.6**	**86**	**0.9**

Impacts by Industry – Visitor Spending – Saskatoon Region (Incremental):

Industry	Gross Output ($M)	GDP at Basic Prices ($M)	Employment (Positions)	Employment income ($M)
Crop and Animal Production	0.1	0.0	0	0.0
Forestry and Logging	0.0	0.0	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and Forestry	0.0	0.0	0	0.0
Mining and Oil and Gas Extraction	0.1	0.0	0	0.0
Utilities	0.3	0.2	0	0.0
Construction	0.1	0.1	1	0.0
Manufacturing	0.3	0.1	0	0.0
Wholesale Trade	0.1	0.1	1	0.0
Retail Trade	4.2	2.8	47	1.7
Transportation and Warehousing	0.9	0.5	3	0.2
Information and Cultural Industries	0.2	0.1	1	0.1
Finance, Insurance, Real Estate and Rental and Leasing	2.2	1.5	4	0.3
Professional, Scientific and Technical Services	0.1	0.1	1	0.1
Administrative and Support, Waste Management and Remediation Services	0.1	0.1	1	0.0
Educational Services	0.0	0.0	0	0.0

Health Care and Social Assistance	0.0	0.0	0	0.0
Arts, Entertainment and Recreation	0.6	0.3	8	0.2
Accommodation and Food Services	5.0	2.4	73	1.7
Other Services (Except Public Administration)	0.0	0.0	0	0.0
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	0.0	0.0	0	0.0
Government Sector	0.2	0.1	1	0.1
Total	**14.6**	**8.3**	**141**	**4.4**

Impacts by Industry – Facility Construction – Saskatoon Region (Gross):

Industry	Gross Output ($M)	GDP at Basic Prices ($M)	Employment (Positions)	Employment income ($M)
Crop and Animal Production	3.9	1.5	9	0.2
Forestry and Logging	0.0	0.0	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and Forestry	0.0	0.0	0	0.0
Mining and Oil and Gas Extraction	34.3	22.0	33	3.5
Utilities	12.7	8.5	16	1.7
Construction	769.0	301.2	3,076	163.9
Manufacturing	33.3	8.9	57	3.8
Wholesale Trade	13.8	9.0	59	4.1
Retail Trade	37.3	24.4	412	14.7
Transportation and Warehousing	22.7	12.0	71	4.7
Information and Cultural Industries	10.0	5.8	40	2.7
Finance, Insurance, Real Estate and Rental and Leasing	82.3	57.4	153	10.3
Professional, Scientific and Technical Services	55.1	36.6	352	20.2
Administrative and Support, Waste Management and Remediation Services	9.6	5.4	107	3.9
Educational Services	0.6	0.4	13	0.2

Health Care and Social Assistance	2.4	1.7	17	0.6
Arts, Entertainment and Recreation	3.7	1.8	48	1.2
Accommodation and Food Services	13.2	6.2	193	4.5
Other Services (Except Public Administration)	1.0	0.6	13	0.4
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	0.5	0.3	7	0.3
Government Sector	8.3	5.3	63	4.2
Total	**1,114.0**	**509.1**	**4,739**	**245.1**

Impacts by Industry – Facility Operations – Saskatoon Region (Gross):

Industry	Gross Output ($M)	GDP at Basic Prices ($M)	Employment (Positions)	Employment income ($M)
Crop and Animal Production	0.1	0.0	0	0.0
Forestry and Logging	0.0	0.0	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and Forestry	0.0	0.0	0	0.0
Mining and Oil and Gas Extraction	0.2	0.2	0	0.0
Utilities	2.0	1.3	3	0.3
Construction	1.3	0.5	5	0.3
Manufacturing	0.8	0.2	1	0.1
Wholesale Trade	0.3	0.2	1	0.1
Retail Trade	1.5	1.0	16	0.6
Transportation and Warehousing	0.5	0.3	2	0.1
Information and Cultural Industries	0.5	0.3	2	0.1
Finance, Insurance, Real Estate and Rental and Leasing	3.3	2.3	6	0.4
Professional, Scientific and Technical Services	0.5	0.3	3	0.2
Administrative and Support, Waste Management and Remediation Services	0.6	0.3	6	0.2
Educational Services	0.0	0.0	1	0.0

Health Care and Social Assistance	0.1	0.1	1	0.0
Arts, Entertainment and Recreation	38.3	11.1	1,148	7.1
Accommodation and Food Services	0.6	0.3	9	0.2
Other Services (Except Public Administration)	0.1	0.1	1	0.0
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	0.0	0.0	0	0.0
Government Sector	1.4	0.9	11	0.7
Total	**52.2**	**19.4**	**1,217**	**10.6**

Impacts by Industry – Visitor Spending– Saskatoon Region (Gross):

Industry	Gross Output ($M)	GDP at Basic Prices ($M)	Employment (Positions)	Employment income ($M)
Crop and Animal Production	0.3	0.1	1	0.0
Forestry and Logging	0.0	0.0	0	0.0
Fishing, Hunting and Trapping	0.0	0.0	0	0.0
Support Activities for Agriculture and Forestry	0.0	0.0	0	0.0
Mining and Oil and Gas Extraction	0.3	0.2	0	0.0
Utilities	1.5	1.0	2	0.2
Construction	0.6	0.2	3	0.1
Manufacturing	1.3	0.4	2	0.2
Wholesale Trade	0.7	0.4	3	0.2
Retail Trade	19.2	12.6	212	7.6
Transportation and Warehousing	4.0	2.1	12	0.8
Information and Cultural Industries	2.0	1.2	8	0.5
Finance, Insurance, Real Estate and Rental and Leasing	9.9	6.9	18	1.2
Professional, Scientific and Technical Services	0.7	0.4	4	0.2
Administrative and Support, Waste Management and Remediation Services	0.4	0.2	5	0.2
Educational Services	0.0	0.0	1	0.0

Health Care and Social Assistance	0.2	0.1	1	0.1
Arts, Entertainment and Recreation	2.7	1.3	35	0.9
Accommodation and Food Services	22.5	10.7	330	7.8
Other Services (Except Public Administration)	0.1	0.1	1	0.0
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	0.1	0.0	1	0.0
Government Sector	0.7	0.5	5	0.4
Total	**67.3**	**38.5**	**645**	**20.4**

Fiscal Impacts

An expansion in economic activity is expected to generate incremental government revenues. The economic impact model's fiscal module is based on the latest provincial and federal budgets and estimates government revenues as follows:

- Provincial personal income tax is calculated by using the provincial personal income tax rate that would apply to the average industry annual income. This is applied to model-generated employment income.
- Corporation income tax is calculated by applying the respective provincial corporate tax rate to incremental corporate profits before taxes.
- Unincorporated business income taxes are calculated by applying the small business tax rate to incremental unincorporated business profits.
- Federal and Provincial sales taxes collected are calculated using a ratio of government sales and excise tax revenues to retail industry output.
- Local/Municipal government fiscal impacts are based on the stable ratio of Saskatoon municipal revenues to regional GDP and the breakdown of Saskatoon city revenues by component part.
- Estimated government revenues are for direct, indirect, and induced impacts and do not represent taxes paid solely by the facility. Estimates are not adjusted for any changes to equalization entitlements.

Government Revenue Impacts –Direct, Indirect, and Induced impacts Construction Cumulative (Gross = Incremental):

Government Revenue Impacts: Direct, Indirect, and Induced	Personal Income Tax (PIT)	Corporate Income Tax	Unincorporated Business Income Taxes	Sales and Excise Taxes	Total Revenue
Federal ($M)	64.89	9.99	16.73	3.89	**95.51**
Provincial ($M)	35.22	7.99	12.07	5.85	**61.13**
	Taxes	**User Charges**	**Franchise Fees and Investment Income**	**Other**	
Municipal ($M)	6.39	10.90	0.73	3.72	**21.74**
Total					**178.39**

Government Revenue Impacts –Direct, Indirect, and Induced impacts – Operations and Tourist Spending – Single Year (Incremental):

Government Revenue Impacts: Direct, Indirect, and Induced	Personal Income Tax (PIT)	Corporate Income Tax	Unincorporated Business Income Taxes	Sales and Excise Taxes	Total Revenue
Federal ($M)	1.05	0.19	0.26	0.33	**1.83**
Provincial ($M)	0.66	0.15	0.19	0.55	**1.55**
	Taxes	**User Charges**	**Franchise Fees and Investment Income**	**Other**	
Municipal ($M)	0.12	0.21	0.01	0.07	**0.42**
Total					**3.81**

Government Revenue Impacts – Direct, Indirect, and Induced impacts – Operations and Tourist Spending – Single Year (Gross):

Government Revenue Impacts: Direct, Indirect, and Induced	Personal Income Tax (PIT)	Corporate Income Tax	Unincorporated Business Income Taxes	Sales and Excise Taxes	Total Revenue
Federal ($M)	5.95	1.12	1.39	1.58	**10.04**
Provincial ($M)	3.76	0.89	1.01	3.06	**8.72**
	Taxes	**User Charges**	**Franchise Fees and Investment Income**	**Other**	
Municipal ($M)	0.73	1.24	0.08	0.42	**2.47**
Total					**21.23**

Scenario Analysis 1 - Tax Base Impacts

Understanding the tax base impacts of urban development is crucial as it enables municipal governments to generate additional revenue by expanding the tax base through new businesses and properties. This revenue can be used to fund public services and infrastructure. Analysing the tax base impacts helps with fiscal planning, allowing policymakers to make informed decisions about budget allocation. Development can stimulate economic growth by attracting businesses and creating jobs. It also ensures fairness in taxation by assessing the distribution of the tax burden. Additionally, understanding the tax base impacts aids in long-term sustainability by considering infrastructure needs and environmental impacts. Overall, comprehending the tax base impacts of development facilitates effective decision-making for revenue generation, economic growth, equity, and sustainability.

Estimating Incremental Population Growth

Estimating the incremental population growth of self-selecting households moving into the DEED using the methodology described above resulted in **roughly 10,000 new people living in Downtown by 2040** that would not have otherwise moved to the area had the arena, convention centre, and amenity services not been developed.

Natural Population Growth (1.71 annually)	2023	2029	2039
Downtown	3,206	3,548	4,199
City Park	4,609	5,099	6,036
Nutana	6,173	6,830	8,084
Riversdale	2,621	2,900	3,432
Caswell Hill	3,548	3,925	4,646
Total	**20,156**	**22,302**	**26,396**
Population growth from 2029 - 2039	**4,095**		
Compounded growth rate	1.84%		
Incremental Post-Construction Increase (3% annually)	**2023**	**2029**	**2039**
Downtown	3,206	3,548	5,806
City Park	4,609	5,099	8,346
Nutana	6,173	6,830	11,178
Riversdale	2,621	2,900	4,746
Caswell Hill	3,548	3,925	6,424
Total	**20,156**	**22,302**	**36,500**
Accelerated 10-year growth from 2029 baseline	**14,199**		
Natural 10-year growth from 2029 baseline	4,095		
Incremental Growth	**10,104**		
Compounded growth rate	4.53%		

Estimating Incremental Property Volume, Value and Tax Base Increases

This scenario assumes 10,000 incremental residents will move into Downtown and surrounding neighbourhoods over and above the natural growth rate during a ten-year period following construction. The scenario recognizes that there is little undeveloped land in Downtown and surrounding neighbourhoods to build single-family homes and that nearly all the new housing required will be multi-family condominiums and apartment buildings.

Assumptions:

- Growth of single-family homes was held flat from 2023 -2039 due to very few infills and vacant lots in the area.
- Multi-family unit occupancy is assumed to average three individuals with an average number of 96 units per building.
- Multi-family natural growth rate is expected to average one new structure per year.
- 35 new buildings or three additional buildings constructed annually over and above the natural rate are required to meet demand.
- Commercial properties were assumed to grow at 2% per year over a natural 1% annual growth rate.
- Fair Market Value increases were assumed to increase at 2% above a 1% natural growth rate for all properties in the study area.
- Municipal tax levies were estimated using the Mill Rates for each property type as determined by the Saskatoon Assessment Model.

Natural Property Count Growth				
2023				
Property Type	**Property Count**	**Fair Market Value**	**Municipal Tax Levies**	**Avg Tax/ Prop**
SFR	7664	$ 2,330,511,800	$ 23,253,029	$ 3,034.06
MFR	192	$ 528,090,300	$ 5,313,467	$ 27,674.31
Com	889	$ 2,529,459,500	$ 40,853,436	$ 45,954.37
Total		**$ 5,388,061,600**	**$ 69,419,932**	
2029				
Property Type	**Property Count**	**Fair Market Value**	**Municipal Tax Levies**	**Avg Tax/ Prop**
SFR	7664	$ 2,473,885,237	$ 24,683,559	$ 3,220.71
MFR	198	$ 560,578,495	$ 5,640,352	$ 28,510.75
Com	944	$ 2,685,072,229	$ 43,366,745	$ 45,954.37
Total		**$ 5,719,535,961**	**$ 73,690,657**	
2039				
Property Type	**Property Count**	**Fair Market Value**	**Municipal Tax Levies**	**Avg Tax/ Prop**
SFR	7664	$ 3,324,694,891	$ 31,268,394	$ 4,079.91
MFR	208	$ 753,370,621	$ 7,145,029	$ 34,359.42
Com	1042	$ 3,608,512,549	$ 54,935,695	$ 52,700.03
Total		**$ 7,686,578,060**	**$ 93,349,119**	

Incremental Property Count & Value Growth			
2029 – 2039			
Property Type	**Property Count**	**Fair Market Value**	**Municipal Tax Levies**
SFR	0	$ 850,809,654	$ 8,489,080
MFR	35	$ 289,058,587	$ 2,908,410
Commercial	226	$ 1,565,962,675	$ 25,291,947
Total	**261**	**$ 2,705,830,916**	**$ 36,689,437**

Scenario Analysis 2 - Consumer Spending Impacts

Event facilities that are as hubs for commerce, tourism, services, and entertainment to feature major arena events, shopping, restaurants, conventions, nightlife, and a thriving business community will attract new residents to the downtown core. There are an estimated 10,000 new downtown dwellers. Given per capita provincial average spending on goods and services, $322 million in 2023 dollars in new consumer spending can be expected, generating a further 1,172 local jobs and $359.5 million in gross economic provincially and $213.7 million locally.

New Downtown Residents Economic Impacts

New Resident Economic Impacts	Province	Saskatoon Region
Gross Output ($M)		
Direct	153.0	153.0
Indirect	62.3	29.3
Induced	83.9	31.4
Total Gross Output	**359.5**	**213.7**
Gross Domestic Product ($M)		
Direct	95.2	95.2
Indirect	36.9	17.4
Induced	51.7	19.4
Total Gross Domestic Product	**221.7**	**132.0**
Employment (Positions)		
Direct	884	884
Indirect	273	116
Induced	469	172
Total Employment	**2,010**	**1,172**
Employment income ($M)		
Direct	36.4	36.4
Indirect	13.9	6.1
Induced	20.2	7.3
Total Employment income	**86.8**	**49.8**

Scenario Analysis 3 - Costs of Inaction (Lost Opportunities)

This scenario quantifies the economic impacts of missed opportunities from performances and events that choose to skip Saskatoon but would otherwise come to City if there were the appropriate venues.

SaskTel Centre

Based on the results of an average attendance of 13,000 spectators and the average split of local to out-of-town attendees of the Elton John, Eric Church, Backstreet Boys, and Shania Twain concerts in Saskatoon (60.5% out-of-town), for each lost opportunity, Saskatoon misses out on overnight stays by 8,448 out-of-town tourists, equating to roughly $5 million (2023 dollars) in consumer and event spending by local and out-of-town spectators.

Out-of-town visitors mainly come from within 250 km of the City and may be staying in hotels or with friends and family for up to two nights.

Economic Impacts of Inaction	Saskatchewan	Saskatoon
Gross Output ($M)	9.3	7.6
Gross Domestic Product ($M)	5.5	4.4
Overnight Stays by Out of Town Visitors		8,448
Consumer Spending ($M)		5.0

TCU Place

Based on the results of an average attendance of 1,000 participants attending a 2-day conference or convention in Saskatoon, for each lost opportunity, Saskatoon misses out on an estimated 1,420 hotel room bookings and associated spending by out-of-town attendees, equating to roughly $0.84 million (2023 dollars).

Conference event spending differs from concert events as out-of-town attendees often come from outside 250 km of the City and rarely stay with local friends and family.

Economic Impacts of Inaction	Saskatchewan	Saskatoon
Gross Output ($M)	1.5	1.2
Gross Domestic Product ($M)	0.9	0.7
Hotel Room Nights		1420
Consumer Spending ($M)		0.84

Appendix B – Economic Model Descriptions

Employment: measured in FTEs.

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

GDP at factor cost: a 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 the net value added alone.

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

Indirect Impact: the secondary impact that includes inter-industry transactions andpurchases 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 FTEs per dollar of industry output.

Data source: Statistics Canada Table: 36-10-0438-01 (formerly CANSIM 381-0035)

Developing Community Level Input-Output Models

The latest available provincial input-output tables at the S-Level from Statistics Canada were used as the starting point. The table represents 25 industries and 18 components of final demand (based on the 2017 S-level aggregation, the latest available). The tables were converted into industry-by-industry space.

In a square input-output table, each industry in the table can be represented as a column. For example, industry 1 can be represented as follows:

z11
z12
.
.
.
z125
w1
X1

zij = purchases by industry i of products from industry j. The transactions matrix consists of z11 to z2525 comprise the transactions matrix of 625 (25 x 25) elements.
W1 = value added or gross domestic product component of industry 1's output which includes wages, salaries, supplementary employment income, unincorporated business profits, incorporate income profits, other income, and depreciation.
X1 = industry 1's total output, which equals W1 plus the sum of z11 to z25.

To create sub-provincial models, four challenges must be overcome:

- allocation of provincial gross output by community/region;
- estimation of technical coefficients by industry at a community/regional level;
- estimation of components of gross domestic product by industry at a community/regional level; and,
- allocation of provincial final demand output by community/region.

Census data on labour force by industry will be used to allocate gross output by industry for the region/community. Regional gross output for industry i is estimated:

XRi = Labour ForceRi/Labour ForceSki x XSki

Where:
XRi = regional gross output for industry i.
Labour ForceRi = regional labour force for industry i.
Labour ForceSki = provincial labour force for industry i.
XSki = provincial gross output for industry i.

To estimate items in each regional transaction matrix (zij) it will be assumed in all cases that the provincial input structure will apply to regional industries. The components of the regional transaction matrix are estimated:

zRij = zSKij/XSki x XRi

Where:
zRij = an element of the regional transactions matrix.
zSKij = the corresponding element of the provincial transactions matrix.

The same methodology is used for estimating the components of GDP.

WRi = WSki/XSki x XRi

Where:
WRi = regional value added or gross domestic product component of industry i's output.
WSki = provincial value added or gross domestic product component of industry i's output.

The components of final demand are estimated as follows. Personal expenditures are based on a per capita allocation of provincial spending.

PERi = PESki/PopSk x PopR

Where:
PERi = Regional personal expenditure on industry i's output.
PESki = Provincial personal expenditure on industry i's output.
PopSk = Provincial population.
PopR = Regional population.

Gross capital formation (GFCF) or investment by industry is estimated by applying the regional share industry to the total provincial gross capital formation for each industry. The same approach is used to estimate exports (Xd), imports (M), and inventory changes by industry (VPC).

GFCFRi = XRi/XSki x GFCFSki

XdRi = XRi/XSki x XdSki

MRi = XRi/XSki x MSki

VPCRi = XRi/XSki x VPCSki

Where:
GFCFRi = Regional investment spending on industry i's output.
GFCFSki = Provincial investment spending on industry i's output.
XdRi = Regional exports of industry i's output.
XdSki = Provincial exports of industry i's output.
MRi = Regional imports of industry i's output.
MSki = Provincial imports of industry i's output.

VPCRi = Regional inventory changes of industry i's output.
VPCSki = Provincial inventory changes of industry i's output.

Regional public administration employment is used to allocate provincial government current expenditures by region.

GCERi = PAER/PAESk x GCESki

Where:
GCERi = Regional government current expenditures on industry i's output.
PAER = Regional public administration labour force.
PAESk = Provincial public administration labour force.
GCESki = Provincial government current expenditures on industry i's output.

It is also necessary to adjust for leakages for intra-provincial imported factors of production. These are estimated residually: If the sum of the use (both Final Demand and Inter-industry sales) of industry i's output is less than Xi then, intra-provincial exports are used to balance. Similarly, if the use is greater than Xi intra-provincial imports are used in the balance.

Intra-provincial exports/imports and exports due to out-shopping are estimated by calculating the marginal propensity to out-shop (the ratio of major community per capita retail sales to provincial per capita retail sales and multiplying by PE. Imports and exports are adjusted by this amount.

The estimation of intra-provincial imports into a region/community and incorporation of intra-provincial imports into the region/community model's leakages will constrain local multipliers to values not exceeding provincial-level multipliers.

Developing Community/Regional Impact Models

Industry outputs in response to a shock in final demand are calculated as $(I-(I-\mu-\alpha-\beta)A)-1((I-\mu-\alpha-\beta)e^*+(I-\mu-\beta)Xd+(I-\mu)Xr)=X$

Where:
I = an identity matrix of industry-by-industry dimension.
A = a matrix of technical coefficients representing inter-industry purchases (zij) divided by own industry gross output Xi.
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 FTEs per dollar of industry output.
GDP components are calculated based on a fixed ratio of Wi to industry output.

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.

References

Bully, J. (2002). *Stadia development as a catalyst for regeneration.*

Byrd, R. T., Beedle, J., & Cardenas, D. A. (2014). Repeat visitation and visitor spending at events: Hogs and muscle cars. *Event Management*, 101-110(10).

Economic Development Regina. (2021). *Arena Project: Economic Impact Assessment and Location Impact.*

Eisinger, P. (2000). The politics of bread and circuses: Building the city for the visitor class. *Urban Affairs Review, 35(3)*, 316–333.

Feng, X., & Humphreys, B. (2016). Assessing the economic impact of sports facilities on residential property values: A spatial hedonic approach. *Journal of Sports Economics*, 188-210.

Hall, M., & Rath, J. (2006). Tourism, migration and place advantage in the global cultural economy. *Tourism, Ethnic Diversity and the City.*

Liscio, S. (2018). *If You Build It, Where Will They Go? Sports Stadiums, Civic Pride, and Neighborhood Displacement, 1930–1970.*

macrotrends.net. (2023). *Saskatoon, Canada Metro Area Population 1950-2023*. Retrieved from https://www.macrotrends.net/cities/20395/saskatoon/population#:~:text=The%20current%20metro%20area%20population,a%201.85%25%20increase%20from%202020.

Roche, S., Spake, D.F. and Joseph, M. (2013). A model of sporting event tourism as economic development. *Sport, Business and Management*, 3 (2), 147-157. https://doi.org/10.1108/20426781311325078.

Santo, C. A. (2016). Beyond the economic catalyst debate: Can public consumption benefits justify a municipal stadium investment? *Journal of Public Affairs*.

Statistics Canada. (n.d.). Retrieved from https://www.statcan.gc.ca/en/start

Tu, C. C. (2005). How does a new sports stadium affect housing values? The case of FedEx Field. *Land Economics*, 379-395.

Xing, X., Chalip, L., & Christine, G. B. (2014). Marketing a social experience: How celebration of subculture leads to social spending during a sport event. *Sport Marketing Quarterly*.

HLT Advisory. March (2018). An analysis of new and/or expanded event and convention facilities in Saskatoon

Johnson, S.G. and Jack C. Stabler. (1990). An approach to estimating the economic impact of climatic change on a regional economy, *Environment and Planning* A(23) 1197-1208.

Miller, R. E., and P. Blair. (1985). Input-output analysis: Foundations and extensions. Prentice Hall, Inc.

Praxis Consulting. November (2018). Economic Impact Assessment - TCU Place.

Saskatchewan Bureau of Statistics. Provincial Economic Accounts.

Statistics Canada. (2021 Census). Census of population. Experienced labour force 15 years and over by class of worker, by province and territory.

Statistics Canada Industry Accounts Division / System of National Accounts, (2021). Saskatchewan 2019 Input-Output Tables.

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).

Statistics Canada. Table 383-0030 - Labour statistics by business sector industry and by non-commercial activity consistent with the industry accounts

Statistics Canada. (2018) National Travel Survey.

Statistics Canada "Travel Survey of Residents of Canada Overnight Average Expenditures* by Type of Reallocated Expenditures where Main Trip Purpose is Business Convention/Conference/Trade Show Province of Expenditures: Saskatchewan Average Expenditure per Person per Night.