

Economic Impacts of *Supernatural*

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INTRODUCTION

The television series *Supernatural* premiered on September 13, 2005 on The WB network (now The CW network). It tells the story of two brothers driving through America to hunt supernatural beings such as monsters, ghosts and demons.¹

The following table summarizes the premiere dates and number of episodes by season.

<i>Supernatural</i> Production Pattern						
	Season 1	Season 2	Season 3	Season 4	Season 5	Season 6
Premiere Date	September 13, 2005	September 28, 2006	October 4, 2007	September 18, 2008	September 10, 2009	September 24, 2010
Number of Episodes	22	22	16	22	22	22
	Season 7	Season 8	Season 9	Season 10	Season 11	Season 12 ²
Premiere Date	September 23, 2011	October 3, 2012	October 8, 2013	October 7, 2014	October 7, 2015	TBD
Number of Episodes	23	23	23	23	23 (expected)	TBD

The pilot for *Supernatural* was filmed in Los Angeles, however the remainder of the series has been filmed in and around Vancouver, British Columbia (BC).³ Throughout the production of the series, significant economic impacts were created for BC residents and businesses, while substantial tax revenues accrued to federal, provincial and local governments.

STUDY PURPOSE

MNP LLP (MNP) was engaged by the Motion Picture Association – Canada to conduct an independent economic impact assessment of the production of the series *Supernatural* on the BC economy. For the study, MNP used data from Warner Bros. Entertainment for Season 10 of the series to estimate the economic impacts that occurred during the 23 episodes of that season of production. As the series would have completed 241 episodes by the end of Season 11, the impacts over the life of the production through Season 11 could be expected to be approximately ten and a half times the Season 10 impacts.

¹Retrieved from http://www.imdb.com/title/tt0460681/?ref=ttloc_loc_tt and <http://www.discoverd.com/news/2015/jul/12/comic-con-2015-supernatural-panel/#&panel1-1>

² Details about Season 12 have not yet been released. As such, Season 12 is excluded from the analysis.

³Nordicity, *The Economic Contribution of the Film and Television Sector in Canada*, 2013.

SEASON 10 PRODUCTION SPENDING

Season 10 production spending engaged 1,082 vendors from 35 communities across BC (Table 1). This included vendors from 17 communities in Metro Vancouver as well as from 18 communities from the Vancouver Island, Thompson/Okanagan, Kootenay, and Mainland/Southwest regions. Production of Season 10 required the engagement of a wide variety of BC vendors, including film and television production facilities, vehicle and equipment rental agencies, audio and video companies, hotels and restaurants, catering companies, cleaners, retailers, storage companies, automobile shops, towing companies, infrastructure companies (waste management, electrical), and professional services firms.⁴

Table 1: Season 10 BC Vendor Data

BC Vendors	Number
BC Businesses	697
<i>Businesses located within Metro Vancouver</i>	<i>671</i>
<i>Businesses located outside Metro Vancouver</i>	<i>26</i>
BC Individuals	385
Total	1,082

As shown in Table 2, the Season 10 production of *Supernatural* resulted in total spending in BC of over \$48 million. Of total BC expenditures, the majority (61 percent) was payments made to BC production crew and other labour, while the remaining 39 percent was spent on purchases of BC goods and services.

Table 2: Season 10 Production Expenditures in BC

	Expenditures (in millions)	Share of Expenditures
BC Production Crew and Qualifying Labour ⁵	\$29.6	61%
BC Purchases (Spending on Goods and Services)	\$19.0	39%
Total BC Spending	\$48.6	100%

⁴ Based on vendor data provided by Warner Bros. Entertainment.

⁵ Please note that the analysis excludes production spending on non-resident labour.

ECONOMIC IMPACTS OF PRODUCTION SPENDING

Using Statistics Canada’s input-output multipliers for BC and the Season 10 production local expenditure report provided by Warner Bros. Entertainment, MNP estimated the total economic impacts in BC (i.e. direct, indirect, and induced) arising from the \$48.6 million in production spending for Season 10. The results of this analysis are presented in Table 3.

Table 3: Estimated Economic Impacts of Season 10 Production Spending in BC

	Production Impacts
Direct Production Expenditure in BC (in millions)	\$48.6
Total Output (in millions)	\$77.4
Total GDP (in millions)	\$59.7
Total Employment (in full-time equivalent positions or FTEs⁶)	918

According to Warner Bros. Entertainment, Season 10 of *Supernatural* attracted approximately \$2.9 million in federal tax incentives and \$9.3 million in provincial tax incentives.⁷ The incentives provided by the Government of BC are estimated to have resulted in the following total impacts:

- \$8.36 in economic output for every dollar of BC tax incentive received by the production.
- \$6.45 in provincial GDP for every dollar of BC tax incentive received by the production.
- 99 FTEs for every \$1 million of BC tax incentive received by the production.

Assuming that the level and pattern of production spending over the 23 episodes in Season 10 was similar across all 241 episodes in the series, the estimated economic impacts generated over the life of the series through Season 11 could be expected to total roughly ten and a half times that from Season 10. These impacts are presented in Table 4.

Table 4: Estimated Economic Impacts of Seasons 1 through 11 Production Spending in BC

	Production Impacts
Direct Production Expenditure in BC (in millions)	\$509.2
Total Output (in millions)	\$810.6
Total GDP (in millions)	\$625.8
Total Employment (in FTEs)	9,615

⁶ One FTE is equivalent to one person-year of employment.

⁷ Provincial tax incentives comprise of basic tax credit on eligible BC labour spending and Digital Animation or Visual Effects (DAVE) tax credit on eligible BC digital animation or visual effects activities.

COMPARISONS WITH OTHER INDUSTRIES

To provide perspective on the size of the economic impacts of the production of *Supernatural* it is useful to compare the impacts with those created by other industries. Two examples of other industries are new home construction and tourism/major events.

- **New Home Construction** – The estimated employment of 918 FTEs supported by the Season 10 production of *Supernatural* is equivalent to the direct and indirect employment supported by the construction of 379 new homes in BC.⁸ The employment supported over Seasons 1 through 11 of production is equivalent to that supported by the construction of about 3,970 new homes.
- **Tourism/Major Events** – The estimated economic output generated by one season of production (\$77.4 million) is approximately one and a half times the economic output projected from the hosting of the 2015 FIFA Women’s World Cup in BC (\$52.0 million).⁹ The economic output generated over Seasons 1 through 11 of production is roughly equivalent to the hosting of the FIFA Women’s World Cup 15 times.

ADDITIONAL IMPACTS

Television series such as *Supernatural* produce additional economic impacts, as well as broader social and community benefits. In addition to economic impacts that arise through production spending, impacts can result from infrastructure spending, film induced tourism, and personal spending by non-resident labour.

- **Infrastructure Impacts** – Infrastructure spending includes expenditures associated with production facilities and equipment. While the economic impacts of infrastructure spending have not been assessed in this report, it is important to note that the impacts can be significant.
- **Film Induced Tourism Impacts** – Film induced tourism (FIT) is the phenomenon of films and television programs encouraging viewers to visit the country or region where filming occurred.¹⁰ FIT and its related tourism concepts, which include the effects of TV, films, movies and media culture, have increasingly been viewed as an important component of tourism marketing. Television series are especially likely to reach much larger audiences than specifically targeted tourism promotion.¹¹

For example, the annual “Salute to Supernatural” convention held in August has drawn fans of *Supernatural* to Vancouver since 2009. This has encouraged the formation of partnerships between the convention organizers and local businesses such as hotels, which offer special rates for convention visitors.¹²

- **Personal Spending by Non-resident Labour while in BC** – This may include spending by non-resident labour on vacations or other personal purchases while on location in BC.

While we have not identified the broader benefits of the production of *Supernatural* in this study, it is worth noting that television series can generate additional economic, community, and social benefits. These may include the creation of opportunities for trainees or interns, the development of business partnerships, the creation of spin-off companies and contributions to community and culture.

⁸ Will Dunning Inc., *Economic and Fiscal Impacts of Residential Construction – 2014*.

⁹ Retrieved from <https://news.gov.bc.ca/stories/fifa-womens-world-cup-will-add-52-million-to-bc-economy>

¹⁰ Oxford Economics, *The Economic Impact of the UK Film Industry*, 2007.

¹¹ Croy, Glen W, *The Lord of the Rings, New Zealand, and Tourism: Image Building with Film*, 2004.

¹² Retrieved from http://www.creationent.com/cal/supernatural_van.htm

APPENDIX A – ECONOMIC IMPACT METHODOLOGY

The main goal of an economic impact study is to quantify the economic contributions that an organization, industry, or project makes to a region.

MNP estimated the economic impact of the production of *Supernatural* using the 2010 Statistics Canada provincial input-output multipliers for BC (the latest multipliers available). Statistics Canada's input-output model is the most widely used system for measuring economic impacts in Canada, and provides a measure of the interdependence between an industry and the rest of the economy. The provincial economic multipliers show the direct, indirect and induced effects on economic metrics, and can be used to measure the quantitative impact of a change in the production or expenditure of a particular industry.

In general, economic impacts are viewed as being restricted to quantitative, well-established measures of economic activity. The most commonly used of these measures are output, GDP, and employment:

- **Output** – the total gross value of all business revenue. This is the broadest measure of economic activity.
- **Gross Domestic Product (GDP)** – the “value added” to the economy (the unduplicated total value of goods and services).
- **Employment** – the number of jobs created or supported (in full-time equivalents or FTEs¹³).

Economic impacts may be estimated at the direct, indirect and induced levels:

- **Direct impacts** are due to changes to front-end businesses that receive expenses or operating revenue as a direct consequence of the activities of an industry or project.
- **Indirect impacts** are due to changes in the activity of suppliers of the front-end businesses.
- **Induced impacts** are due to shifts in spending on goods and services as a consequence of changes to the payroll of the directly and indirectly affected businesses.

In this analysis MNP estimated the impact on the BC economy of a set of direct expenditures related to the filming of *Supernatural*. The television series, like other productions, has an amount of direct expenditure, which in turn stimulates so-called indirect impacts across the industry supply chain. These expenditures also create or support jobs, as firms add or retain labour to meet rising demand. This, in turn, raises incomes and stimulates what are known as induced impacts, as higher incomes flow through to consumption. The total economic impact of the production spending is the sum of each of these direct, indirect and induced impacts.

¹³ One FTE is equivalent to one person-year of employment.