

The Economic Contribution of Cruise Tourism in Victoria 2012



Prepared for:

Greater Victoria Harbour Authority

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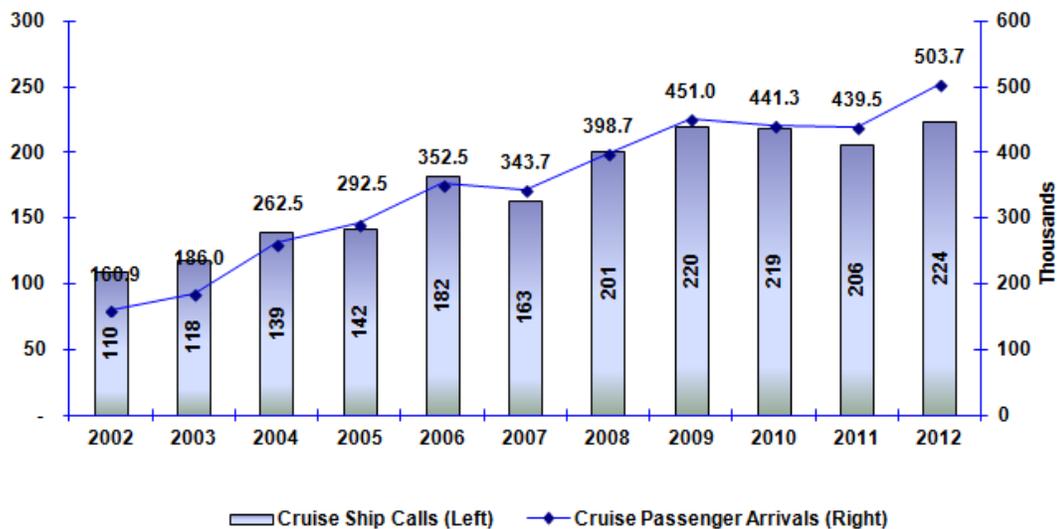
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I. Background

Business Research and Economic Advisors (BREA) was engaged by the Cruise Lines International Association - North West & Canada [CLIA-NWC]¹ and its Canadian cruise destination partners to analyze the direct and indirect economic contribution of the international cruise industry to the Canadian economy and the economies of selected provinces in 2012. Subsequent to this the Greater Victoria Harbour Authority engaged BREA to analyze the economic impact of cruise tourism generated by just those cruise ship calls at the Port of Victoria. This report summarizes those impacts.

The Greater Victoria Harbour Authority (GVHA) reported that there were 224 cruise ship calls in Victoria during the 2012 cruise season². Victoria is primarily a transit port for cruise ships sailing on Alaska cruise itineraries that originate in Seattle. However, the port also receives cruise calls from ships that are repositioning to or from the Alaska cruise market, as well as, ships originating from other west coast ports in the United States. As shown in **Figure 1**, these cruise ships carried 503,691 passengers to the port. These passengers accounted for 47% of all passenger traffic in British Columbia and represented a 14.6% increase from 2011. This was also a new peak in passenger arrivals. The previous peak was in 2009 when 450,964 cruise passengers arrived in Victoria. While there has been a general upward trend in passenger arrivals over the past decade, they do fluctuate from year-to-year as cruise lines modify their Alaska itineraries and as economic conditions impact the overall demand for cruises.

Figure 1 – Victoria Cruise Passenger Arrivals, 2002 - 2012



Source: Greater Victoria Harbour Authority

¹ Formerly known as the North West & Canada Cruise Association.

² The cruise season in Victoria is six months long and generally begins in May and extends through October.

II. Total Direct Expenditures

Cruise tourism generates significant economic activity in Victoria and the surrounding region. As a result of cruise ship calls, nonresident passengers and crew are brought into the region which results in incremental spending and economic activity. There are three primary sources of cruise-related spending: i) cruise lines; ii) cruise passengers and iii) crew members. The cruise lines purchase a variety of goods and services in support of their cruises, including food and beverages, hotel supplies and port services to name a few. In addition, cruise ships sailing on Alaska itineraries undertake repair and maintenance work at the Seaspan Victoria Shipyards. Passengers purchase shore excursions, visit local food and beverage establishments and buy souvenirs, clothing and other retail goods. Those crew that disembark during cruise ship calls will purchase a similar set of goods and services with a heavier concentration on retail goods.

During 2012, spending by the cruise lines and their passengers and crew that is directly linked to the 224 cruise ship calls and ship repair activities totaled \$49 million³ in Victoria and the surrounding region. As indicated in **Table 1**, expenditures by passengers accounted for 53% of the total, cruise lines accounted for 32% and crew the remaining 15%. The industry impacts, which are discussed in the following sections, vary significantly across the three sources.

Table 1 – Direct Cruise-Related Expenditures in Victoria, 2012
Millions of Dollars

<i>Sources</i>	<i>Spending</i>	<i>Share</i>
Cruise Lines	\$ 15.6	32%
Passengers	\$ 25.8	53%
Crew	\$ 7.6	15%
Total	\$ 49.0	

II.A Expenditures by Cruise Lines

Data collected from CLIA-NWC member cruise lines that called at Victoria during 2012 and the Seaspan Victoria Shipyards showed that cruise lines spent an estimated \$15.6 million with businesses in Victoria and the surrounding region in direct support of cruise calls in Victoria (see **Table 2**).

As indicated in the table, expenditures by the cruise lines for port and navigation fees accounted for 46% of their total spending. These included passenger and vessel based fees charged by the port for berthage, Transport Canada harbour dues and pilotage. Another \$1.8 was spent for port-based services such as waste removal, stevedoring and related services. Finally, an estimated \$0.5 million was spent locally for other operating expenses in-

³ All dollar denominated figures are in Canadian dollars.

cluding hotel and cleaning supplies, and miscellaneous equipment.⁴ Finally, the Seaspan Victoria shipyards reported that there 8 cruise ship repair projects during 2012 with a total cost of nearly \$6.25 million.

Table 2 – Cruise Lines’ Expenditures in Victoria, 2012
Millions of Dollars

<i>Category</i>	<i>Spending</i>	<i>Share</i>
Port and Navigation Fees	\$ 7.1	46%
Ship Maintenance & Repair	\$ 6.2	40%
Waste Removal & Utilities	\$ 1.8	11%
Other Operating Expenses	\$ 0.5	3%
Total	\$15.6	

II.B Expenditures by Passengers and Crew

As noted previously, the GVHA reported that 503,691 cruise passengers arrived on ships in Victoria in 2012. Data collected from the cruise lines on disembarkation rates showed that 77.5% of these arriving passengers, or 390,361 passengers, made an onshore visit in Victoria.

BREA arranged for passengers to be surveyed onboard a representative sample of cruise ships following their departure from Victoria. Surveys were placed in each cabin/stateroom while the ship was in port. Following their return to the ship, passengers had the remainder of the cruise to complete the survey. A total of 2,164 surveys were returned for tabulation. Since the average number of passengers per cabin was 2.4, the 2,164 surveys represented the spending of nearly 5,200 passengers. These passengers represented about 11% of the total number of passengers on the ships that were surveyed. As shown in **Table 3**, these surveys indicated that cruise passengers spent an average of \$66.11 per passenger onshore visit.⁵ Thus, the 390,361 passenger visits generated \$25.8 million in onshore expenditures.

Passengers spent an average of \$24.97 per visit on retail goods, such as clothing and souvenirs. This generated \$9.7 million in retail purchases accounting for 38% of passenger expenditures. The passenger surveys showed that 48% of visiting passengers purchased a tour. Of these 73% purchased their tour from the cruise lines (called shore excursions), 14% directly from the tour operators and 13% from travel agents. Adjusting these expenditures for commissions retained by the cruise lines and travel agents, approximately 30%, and averaging across all onshore visits, cruise passengers spent an average of \$28.91 per onshore visit on tours.⁶ In total, \$11.3 million was spent by passengers on tours during

⁴ These expenditures exclude another \$11 million in expenditures for administrative and professional services, ship repair services and equipment that are not directly linked to the 224 cruise ship calls during 2012.

⁵ Based upon the number of surveys returned, the standard error of the mean spending estimate was ±5.2%.

⁶ The actual average purchase price of a tour by those that purchased a tour in Victoria was \$66.85 per passenger.

2012. Finally, passengers spent an average of \$12.23 per passenger visit for food and beverages for a total of \$4.8 million, 18% of total passenger onshore expenditures.

Table 3 – Passenger Onshore Expenditures in Victoria, 2012

<i>Category</i>	<i>Total Expenditures Millions of Dollars</i>	<i>Share</i>	<i>Average Per Passenger</i>
Passenger Onshore Visits	390,361		
Tours* and Transportation	\$ 11.3	44%	\$ 28.91
Food and Beverages	\$ 4.8	18%	\$ 12.23
Other Retail	\$ 9.7	38%	\$ 24.97
Total Spending	\$ 25.8		\$66.11

* Passenger expenditures for tours purchased from cruise lines were adjusted to exclude management fees and commissions retained by the lines.

Note: Rows and/or columns may not sum to the total due to rounding.

As shown in **Table 4**, an estimated 118,927 crew out of a total 278,000 arrived onshore in Victoria and spent an average of \$64.10 per visit for a total of \$7.6 million in 2012. Onshore crew visits were estimated from data provided by the cruise lines. These data included crew onboard ships that arrived in Victoria and the percentage that disembarked. These data were based on cruise ships arrivals from June through October. Again, estimates of per crew expenditures were generated from surveys of crew conducted on the visiting cruise ships. A total of 630 crew surveys were completed and returned for tabulation. The average crew visit generated an almost identical level of spending as a passenger visit, \$64.10⁷ for a crew visit versus \$66.11 for a passenger visit. In addition, while expenditures for tours and food and beverages accounted for 7% and 30% of total crew spending respectively, tours absorbed 44% of passenger expenditures and food and beverages accounted for only 18% of passenger spending.

Table 4 – Crew Expenditures in Victoria by Category, 2012

<i>Category</i>	<i>Total Expenditures Millions of Dollars</i>	<i>Share</i>	<i>Average per Crew</i>
Crew Onshore Visits	118,927		
Tours and Transportation	\$0.5	7%	\$ 4.21
Food and Beverages	\$2.3	30%	\$ 19.27
Other Retail	\$4.8	63%	\$ 40.62
Total Spending	\$7.6		\$64.10

⁷ Based upon the number of surveys returned, the standard error of the mean estimates was ±7.0%.

III. Economic Impacts by Industry

For purposes of the economic impact analysis, the \$49.0 million in direct cruise industry expenditures in Victoria were allocated to output in the appropriate industries. For example, after adjusting for trade and transportation margins and indirect business taxes, cruise lines' purchases of food and beverages were allocated to the Food & Beverage manufacturing industry while passenger expenditures for tours were allocated to the Transportation and Warehousing industry. These are shown in **Table 5**.

Businesses in the Goods Producing sector generated \$16.7 million in direct output, 34% of total direct output, as a result of direct cruise tourism expenditures. This output was generated primarily through the shipyard operations among the durable goods industries and the production of goods in support of passenger and crew purchases in the nondurable goods industries, such as onshore food and beverages consumed by passengers and crew and retail goods, such as clothing and local crafts.

Table 5 – Direct Cruise Industry Output in Victoria, 2012
Millions of Dollars

<i>Sectors/Industries</i>	<i>Output</i>	<i>Share</i>
Goods Producing Sector	\$16.7	34%
Agriculture, Mining & Construction	\$ 1.5	3%
Manufacturing	\$ 15.2	31%
Service Producing Sector	\$31.4	64%
Wholesale & Retail Trade	\$ 5.1	10%
Transportation and Warehousing	\$ 14.6	30%
Accommodation and Food Services	\$ 8.2	17%
Other Services & Government	\$ 3.5	7%
Spending by Sector	\$48.1	
Indirect Business Taxes (Less Subsidies)	\$ 0.9	2%
Total Direct Spending	\$49.0	

The Service Producing sector accounted for 64% of the direct output generated by cruise industry expenditures with \$31.4 million in output. The largest sector was the Transportation and Warehousing industry with \$14.6 million in direct output, 30% of the total. This included the delivery of port services, such as stevedoring, piloting and port agency services, as well as trucking and warehousing. It also included tours and other ground transportation purchased by passengers and crew.

Passenger and crew expenditures generated an estimated \$13.3 million in direct output in the Wholesale & Retail Trade and Accommodations and Food Services industries, accounting for 27% of the total direct output. Finally, the Other Services and Government industries accounted for 7% of total direct output with \$3.5 million in output.

III.A. Direct Output, Employment, Wage and Tax Impacts

As shown in **Table 6**, the \$49 million in direct cruise industry expenditures generated direct employment of 368 annualized full- and part-time employees⁸ paying \$13.6 million in wage income. Combining indirect business taxes (less subsidies) and income taxes, the direct cruise-related spending in the province generated \$3.7 million in governmental tax payments.

Table 6 – Direct Cruise Industry Economic Impacts in Victoria, 2012

<i>Sectors/Industries</i>	<i>Output Millions of Dollars</i>	<i>Jobs</i>	<i>Income Millions of Dollars</i>
Goods Producing Sector	\$16.7	71	\$ 3.7
Agriculture, Mining & Construction	\$ 1.5	5	\$ 0.3
Manufacturing	\$ 15.2	66	\$ 3.4
Service Producing Sector	\$31.4	297	\$ 9.9
Wholesale & Retail Trade	\$ 5.1	60	\$ 1.7
Transportation and Warehousing	\$ 14.6	81	\$ 4.1
Accommodation and Food Services	\$ 8.2	107	\$ 2.2
Other Services & Government	\$ 3.5	49	\$ 1.9
Total Impacts	\$48.1	368	\$13.6
Indirect Business Taxes (Less Subsidies)	\$ 0.9		
Personal Income Taxes			\$ 2.8
Direct Output	\$49.0		

The Goods Producing Sector accounted for 34% of total direct output, 19% of the total direct jobs and 27% of the wage income. These impacts were concentrated in the manufacturing industries which accounted for more than 90% of the impacts within the Goods Producing Sector. Within manufacturing, the durable goods industries accounted for approximately 60% of the economic impacts. The primary impacts among the durable goods industries occurred in the transportation equipment industry, i.e. the shipyard, and the nonelectrical and electrical machinery industries. Combined these three industries accounted for more than 90% of the economic impacts.

Among the nondurable goods industries, which accounted for 40% of the manufacturing impacts, two-thirds of the economic impacts occurred in the food and beverage (33%), apparel (16%) and miscellaneous manufacturing (18%) industries. As noted previously these

⁸ The economic impacts generated by the models are average annual impacts and include part-time (including seasonal) and full-time employees. Since these expenditures occur over a 6-month period, the peak employment impacts will actually be higher than those reported. Because many of the seasonal workers will incur significant overtime, the six-month impacts, while larger than the average annual impacts, are not necessarily twice as large. Adjusting the employment figures for part-time employees, the direct employment impact is equivalent to approximately 285 full-time employees.

impacts were derived from passenger and crew spending for food and beverages and retail goods.

With passenger and crew spending accounting for 68% of total direct spending and 65% of these expenditures going for retail goods and food and beverages, the direct cruise industry expenditures generated \$13.3 million in direct output, 167 annualized full- and part-time jobs and \$3.9 million in income in the Wholesale and Retail Trade and Accommodation and Food Services industries. Due to the relatively low productivity and wages within these industries, these impacts accounted for 29% of the direct income but 45% of the direct jobs. Approximately 60% of these economic impacts were generated within the Food Services industry, i.e., eating and drinking establishments.

The Transportation and Warehousing industry accounted for 22% of the direct employment and 30% of the direct wage impacts. This industry accounted for the most income and included jobs at the port, among tour operators and ground transportation companies. Finally, Other Services and Government accounted for 7% of the direct output generated by the cruise sector and about 13% of the direct jobs and income.

III.B. Total Output, Employment, Wage and Tax Impacts

The total economic impacts of the cruise industry are the sum of the direct impacts described above and the indirect impacts. The indirect economic benefits derived from the cruise industry result in part from the additional spending by the suppliers to the cruise industry. For example, food processors must purchase raw foodstuffs for processing; utility services, such as, electricity and water, to run equipment and process raw materials; transportation services to deliver finished products to the cruise lines or wholesalers; and insurance for property and employees.

The British Columbia input/output table was used to estimate the indirect impacts.⁹ The input-output table reflects the inter-industry links among industries in the provincial economy. Use of the input-output table permits the estimation of the additional economic impacts that the direct spending by the cruise industry, its passengers and its suppliers has on all other industries in the British Columbia economy. As discussed previously, the direct expenditures were adjusted for transportation and trade margins as well as indirect business taxes prior to estimating the indirect impacts.

As shown in **Table 7** the input-output analysis indicated that the \$49 million in direct cruise industry expenditures generated \$96.1 million in total (direct plus indirect) output, 683 annualized full- and part-time jobs¹⁰ and \$30 million in income. In addition, the industry gen-

⁹ Statistics Canada, *The Input-Output Structure of the Canadian Economy*, 2008.

¹⁰ Adjusting the employment figures for part-time employees, the direct employment impact is equivalent to approximately 530 full-time employees.

erated an estimated \$1.9 million in indirect business taxes (less subsidies) and \$6.3 million in personal income taxes.

Table 7 – Total Cruise Industry Economic Impacts in Victoria, 2012

<i>Sectors/Industries</i>	<i>Output Millions of Dollars</i>	<i>Jobs</i>	<i>Income Millions of Dollars</i>
Goods Producing Sector	\$ 37.1	152	\$ 7.9
Agriculture, Mining & Construction	\$ 9.4	34	\$ 1.8
Manufacturing	\$ 27.7	118	\$ 6.1
Service Producing Sector	\$ 57.1	531	\$ 22.1
Wholesale & Retail Trade	\$ 7.4	103	\$ 3.9
Transportation and Warehousing	\$ 17.4	96	\$ 4.8
Accommodation and Food Services	\$ 8.5	112	\$ 2.3
Other Services & Government	\$ 23.8	220	\$ 11.1
Total Impacts	\$ 94.2	683	\$ 30.0
Indirect Business Taxes (Less Subsidies)	\$ 1.9		
Personal Income Taxes			\$ 6.3
Total Output	\$ 96.1		

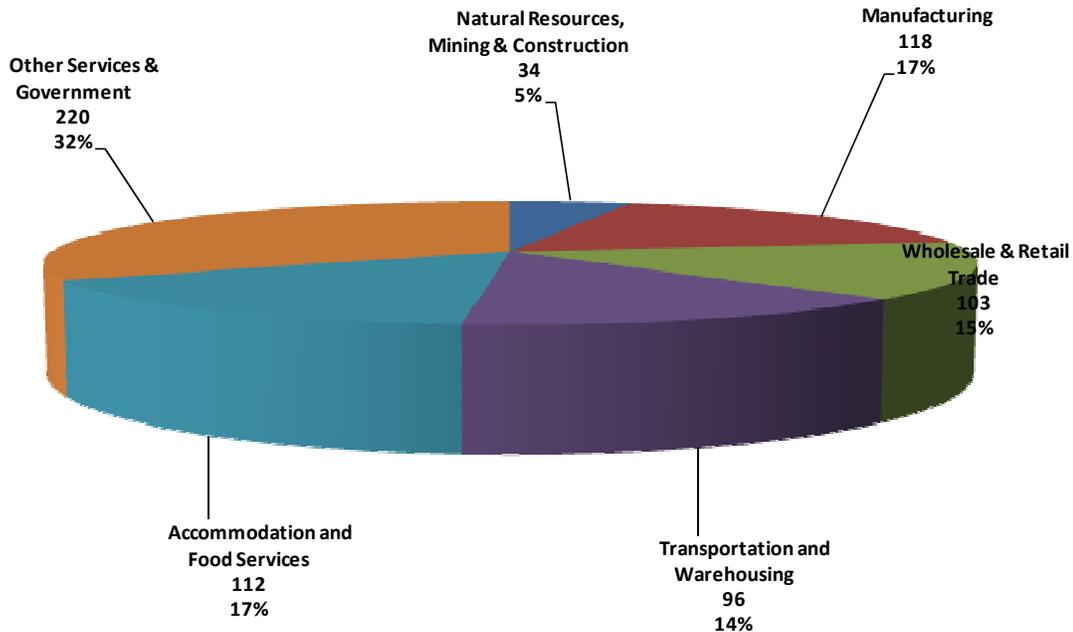
The Goods Producing Sector accounted for 39% of the total output impacts but due to the relatively high productivity of this sector only 22% of the total jobs and 26% of the income impacts. The total economic impacts are more evenly distributed throughout the Goods Producing Sector than the direct impacts as the indirect impacts spread throughout the economy, especially among the natural resource and construction industries.

Within the Services Producing sector, Other Services & Government is the dominant industry, accounting for more than 40% of the output and employment impacts in this sector and half of the income impacts. This is the result of the indirect impacts spreading throughout the economy and impacting the financial, business and personal services industries which were not significantly impacted by the direct cruise industry spending.

While there are indirect impacts, the total economic impacts in the Transportation and Warehousing and Accommodation and Food Services industries are only slightly higher than the direct economic impacts, about 19% for Transportation and Warehousing and 5% for Accommodation and Food Services. This reflects the concentration of the direct spending impacts in these industries.

The total economic impacts in the Wholesale and Retail Trade industry are more than 50% higher than the direct impacts. Because the indirect impacts are concentrated in the relatively high wage Wholesale Trade industry, the total income impacts are double the direct income impacts.

Figure 2 – Distribution of Total Employment Impact in Victoria, 2012



In summary, the 224 cruise ship calls at the Port of Victoria during 2012 generated an estimated 509,288 passenger and crew onshore visits (see **Table 8**). Passengers, crew and the cruise lines directly spent \$49 million in the region during the year generating 368 annualized full- and part-time jobs paying \$13.6 million in wage income. The direct spending also generated an estimated \$3.7 million in indirect business taxes (less subsidies) and income taxes.

As a result of the subsequent indirect spending by businesses and their employees, the cruise industry was responsible for the generation of an estimated \$96.1 million in total output, 683 annualized jobs and \$30 million in wage income in Victoria and the surrounding region during 2012. Total indirect business taxes (less subsidies) and personal income taxes were an estimated \$8.2 million.

Relative to the national impacts, the economic impacts in Victoria were more highly concentrated in the manufacturing, and food services industries. This reflects the high share of transit passenger and crew visits and ship repair activity at Seaspan Victoria Shipyards. Conversely, there was a proportionately smaller impact within the Professional Services sector due to the fact that the direct purchases of these support services are not directly related to specific cruise ship calls nor are they as nearly dependent upon proximity to ports and thus are spread throughout the urban centers of Canada.

Table 8 - Summary of Cruise Industry Economic Impacts in Victoria, 2012

Individual Passenger and Crew Visits	509,288
Direct Economic Impacts	
Cruise Industry Direct Spending (\$ Millions)	\$49.0
Employment	368
Wage Income (\$ Millions)	\$13.6
Indirect Business and Income Taxes (\$ Millions)	\$3.7
Total Economic Impacts	
Total Output (\$ Millions)	\$96.1
Employment	683
Wage Income (\$ Millions)	\$30.0
Indirect Business and Income Taxes (\$ Millions)	\$8.2



BREA specializes in custom market analyses for clients throughout the private and public sectors. These unique market analyses integrate economic, financial, and demographic trends with primary market research, proprietary client data, and advanced statistical and modeling techniques. This approach results in comprehensive and actionable analysis, databases and models designed to support planning, sales and marketing, and public relations within client organizations.

BREA's principals each have more than twenty-five years of experience in consulting and forecasting with a wide range of international product and service companies, including consumer products, leisure, retailing, gaming, business services, telecommunications, utility and financial services. Their consulting assignments provide critical analysis and insight into market dynamics, product demand, economic trends, consumer behavior and public policy.

BREA's approach to market analysis focuses on determining market or product characteristics that can be summarized by three attributes: size, share, and growth. Since studies are designed to meet the specific needs of each client, they can incorporate many dimensions of the market and include a variety of ancillary services. To carry out this market analysis BREA provides the following services:

Market Research: design and implementation of primary market research instruments using telephone, mail, and intercept surveys. Test instruments are designed to collect information on product demand, attributes of consumers and users, perceived product attributes, and customer satisfaction.

Segmentation Analyses: segmenting demand attributes by product line, consumer demographics (age, income, region, etc.) and business characteristics using market research, government statistics and proprietary databases.

Statistical and Econometric Modeling: developing quantitative models relating market and product demand to key economic factors and demographic market/consumer attributes. Models can be used for forecasting, trend analysis and divergence/convergence analysis.

Market Studies and Trend Analyses: detailed descriptions of markets (defined as products, regions, industries, consumer segments, etc.) and comprehensive analyses of underlying market forces (such as economic and financial conditions, competitive environment, technology, etc.).

Economic Impact Studies: thorough analysis of industries and consumption behavior and their contribution to or impact on national and regional (state, metropolitan areas, counties, etc.) economies.