

Industries – Publishing – ISIC 58.12 and 58.13

# **Output Measurement for Periodical, Newspaper, and Directory and Mailing List Publishing Service Industries**

Processes in Classifying and Measuring Output

by

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**34th Meeting of the Voorburg Group on Service Statistics  
Paris, France  
September 30<sup>th</sup> to October 4<sup>th</sup>, 2019**



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# OUTPUT MEASUREMENT

For Periodical, Newspaper, and Directory and Mailing List Publishing Service Industries

## 1. Introduction

This paper provides a brief overview of the measurement framework for the Periodical; Newspaper; and Directory and Mailing List Publishing Service Industries and highlights some of the challenges in classifying and measuring the output of these industries.

Data are collected from businesses within these industries by means of three separate surveys<sup>1</sup>: [\*The Survey of Service Industries: Periodical Publishers \(PERI\)\*](#); [\*The Survey of Service Industries: Newspaper Publishers \(NEWS\)\*](#); and [\*The Annual Survey of Service Industries: Database, Directory, and Specialty Publishers \(DDSP\)\*](#)<sup>2</sup>.

Collected data are combined with information from other administrative data sources to produce official estimates for key financial variables and industry characteristics.<sup>3</sup> Results for the newspaper and periodical industries are released separately at national and provincial levels within 15 months of the end of the reference period.

Statistics Canada does not publish any figures on the database, directory, and specialty publishers' industry. This industry is extremely concentrated and Statistics Canada must suppress publication to protect respondent confidentiality

These statistics are used by businesses, governments, investors, associations and the public, to monitor industry growth, measure performance, and make comparisons to other data sources.

The Canadian System of Macroeconomic Accounts (CSMA)<sup>4</sup> uses the data to measure the industries' overall value-added contribution in the Canadian economy, while the Cultural Satellite Account (CSA) uses these data to "better measure the economic importance of culture, arts, heritage, and sport in the Canadian economy". The Department of Canadian Heritage uses the data to support policy decision-making.

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1. These surveys are administered by the Retail Services Industry Division (RSID) and conducted through the Integrated Business Statistics Program (IBSP). IBSP integrates approximately 200 separate business surveys into one program to minimize overlap between different survey questionnaires and to ensure all surveys are consistent in their structure and content.

2. For budgetary reasons, the periodical publishers and newspaper publishers are surveyed every second years and database, directory, and specialty publishers on an annual basis. Estimates for these industries are published separately.

3. Key financial variables include operating revenue, operating expenses, profit margin, and salaries wages and benefits.

4. The CSMA used the System of National Accounts 2008 to create the Canadian System of National Economic Accounts (Statistics Canada/Statistique Canada 2019)



## 2. Description and Characteristics of the Industry

### 2.1 Definition of the Industry

This paper focuses on establishments primarily engaged in publishing newspapers, periodicals, databases, directories, and other works at regular intervals, typically on a weekly, monthly or yearly basis (North American Industry Classification System [NAICS] 511110, 511120 and 511140). They may be published in printed or electronic form<sup>5</sup>.

In 2017, the classifications for the periodical, newspaper, and database, directory and specialty publishing industries were updated to include online-only publishers. Previously, online-only publishers in these three industries were classified to NAICS 519130 (Internet Publishing and Broadcasting and Web Search Portals). The NAICS reclassification had a relatively small impact on the published results. This change was made in anticipation of the trend to move to online-only publishing.

The concordances of the NAICS Canada 2017 version 3 with the International Standard Industrial Classification (ISIC) Revision 4 and to the Canadian Input-Output Industry Classification (IOIC) are shown in Table 1. The relationships between these three classifications are not direct except for the newspaper publishing Industry.

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5. Under International Standard Industrial Classification, these industries are captured together under Section J, Class 5813 (Publishing of newspapers, journals and periodicals), which includes print, electronic, and internet publishing.



**Table 1 Concordances of the North American Industry Classification System (NAICS Canada) 2017 version 3 to the International Standard Industrial Classification (ISIC), Rev. 4 and to the Canadian Input-Output Industry Classification (IOIC).**

NAICS Canada 2017 Version 3.0 Code	NAICS Canada 2017 Version 3.0 Title	ISIC Rev. 4 Code <sup>6</sup>	ISIC Rev. 4 Title	IOIC Code <sup>7</sup>	IOIC Title
NAICS 511140	Database, Directory and Specialty Publishing Industry <sup>8</sup>	ISIC J5812	Publishing of directories and mailing lists	BS5111A0	Periodical, Book and Directory Publishers (establishments in NAICS 511120, 511130 and 511190 are also included in BS5111A0 but not in J5812)
NAICS 511190	Other Publishers <sup>9</sup>	ISIC J5811	Book Publishing		
		ISIC J5819	Other Publishing Activities		
NAICS 511120	Periodical Publishing Industry <sup>10</sup>	ISIC J5813	Publishing of newspaper, journals and periodicals		
NAICS 511110	Newspaper Publishing Industry <sup>11</sup>			BS511110	Newspaper Publishers

(North American Industry Classification System (NAICS) Canada, Version 3.0 2017)

6. ISIC is the International Standard Industrial Classification of All Economic Activities as Set by the United Nations.

7. The Input-Output Industry Classification (IOIC) is based on the industrial standard of the day. The IOIC uses a coding scheme that resembles NAICS, but is modified to reflect the hierarchical structure and national accounting concepts. The IOIC will be aligned with NAICS Canada 2017 version 3.0.

8. NAICS 511190 is also linked with J5811 (Book Publishing Industry) and J5819 (Other Publishing Activities Industry). However, these fall outside the scope of this paper.

9. See Appendix C.

10. See Appendix B.

11. See Appendix A.



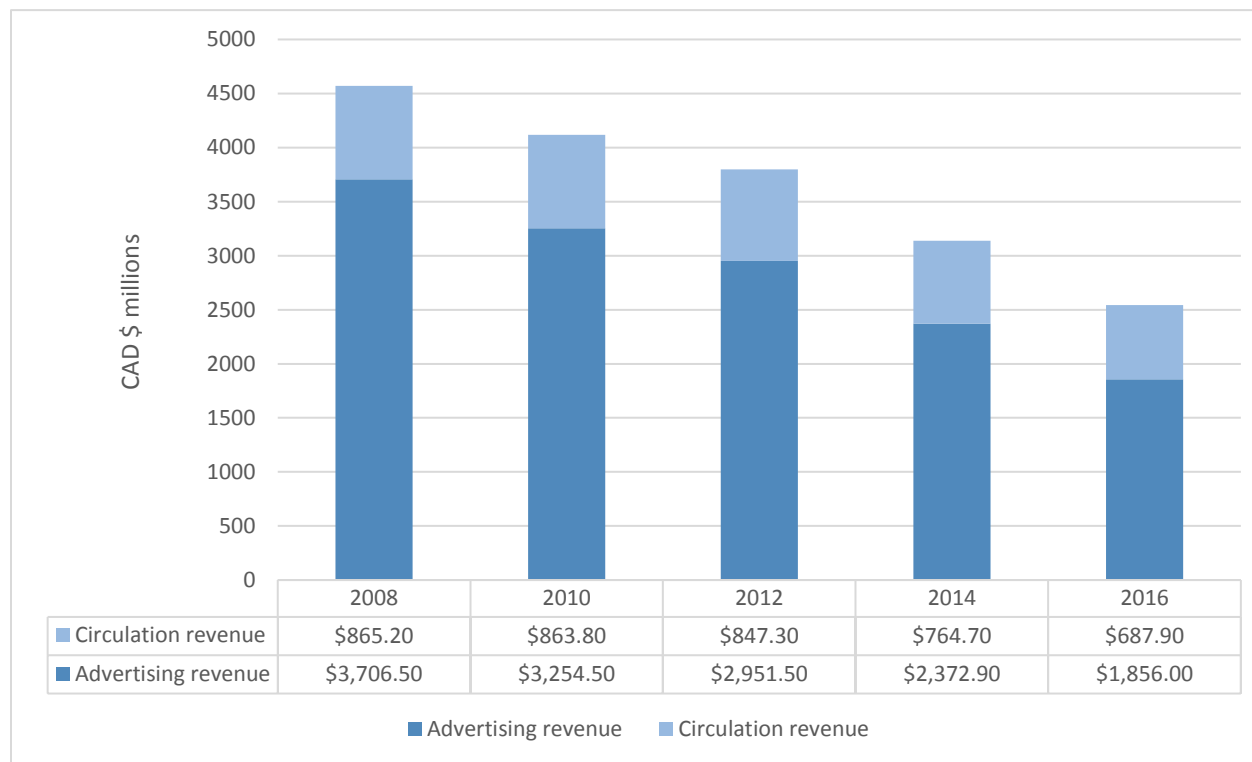
## 2.2 Market Conditions

Newspaper and periodical publishers sell two main products—published content and advertising space.<sup>12</sup> By doing so, they have two main revenue streams; circulation revenue, which is generated from the sale of content, and advertising revenue, which is generated from the sale of advertising space.

### Newspaper Publishing Industry

The newspaper publishing industry reported \$3.2 billion in total operating revenue in 2016, a decrease of 19.8% from 2014. The largest share of sales was from advertising (63.0%) followed by circulation revenue (23.3%). These revenues declined in dollar value between 2014 and 2016 by 21.8% and 10.0% respectively. Print advertising sales declined between 2014 and 2016, while total digital advertising sales remained relatively unchanged. The share of print advertising sales declined from 89.2% to 86.2% of total advertising sales. In 2016, print circulation generated \$660.2 million and digital circulation generated \$27.8 million. Other sales were much smaller, and included revenue from the distribution of flyers and inserts, custom printing, and other revenues.

**Chart 1 Advertising revenue versus circulation revenue, newspaper publishers, Canada**



Source: Statistics Canada. [Table 21-10-0193-01 Newspaper Publishers, advertising and circulation sales by type of paper \(x 1,000,000\)](#) and [Table 2, Advertising revenue by type of paper, Canada, 2008 to 2010, of 63241X](#), and [Table 3, Circulation revenue by tpe of paper, Canada, 2008 to 2010 of 63241X](#).

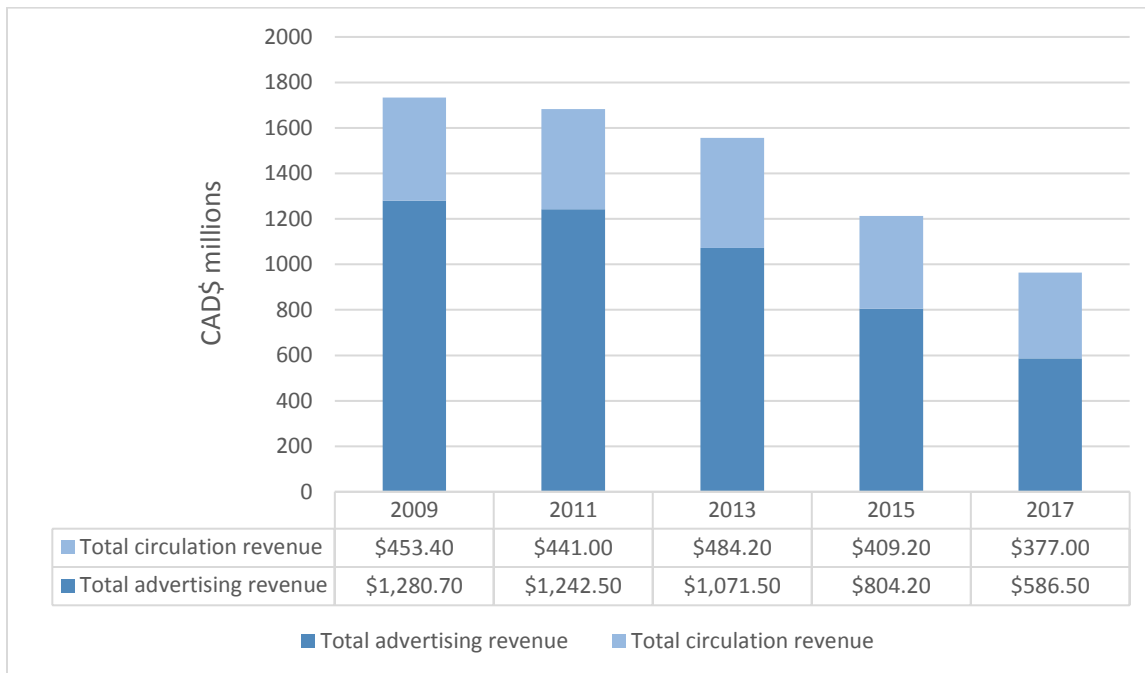
12. Products that qualify as “published content” within the context of this paper include those listed in Appendix D.



### Periodical Publishing Industry

The periodical publishing industry reported \$1.3 billion in total operating revenue in 2017, a decrease of \$284.0 million (-17.8%) from 2015 (see Chart 2 and 3). The largest shares of revenues were from advertising and circulation revenue, which declined by \$217.7 million (-27.1%) and \$32.2 million (-7.9%) respectively. Printed periodical products were the main source of circulation revenue (90.1%). The share of periodical print circulation from paid subscription decreased from 33.2% in 2015 to 23.2% in 2017. Conversely, other free, complimentary or promotional copy circulation rose from 36.2% to 49.6% of all copies circulated.

**Chart 2 Advertising revenue versus circulation revenue, periodical publishers, Canada**



Source: Statistics Canada. [Table 21-10-0071-01 Periodical publishers, advertising, circulation and custom publishing revenue \(x 1,000,000\)](#) and [Table 3: Advertising and Circulation revenue for the periodical publishing industry, by province and region, 2009 and 2011, 87F005X Periodical Publishing, 2011](#)



In the recent years, there has been more content available on online platforms, not only from both the newspaper and periodical publishing industries, but also from other content-producers. Significant re-organization within the newspaper and periodical publishing industries has also occurred, namely, consolidation, mergers, and acquisitions. Consequently, there has been a decline in the number of establishments within these industries.

**Chart 3 Summary statistics, periodical publishers, Canada<sup>13</sup>**



Source: Statistics Canada. [Table 21-10-0053-01 Periodical publishers, summary statistics](#) and [Table 1: Summary statistics for the periodical publishing industry, by province or region of 87F005X Periodical Publishing, 2011](#).

The publishing industry represents a small share of Canada’s the total economic activity.<sup>14</sup> The most recent data available show that economic activity in the publishing industry totalled approximately \$4 billion dollars in 2015, representing 0.21% of Canada’s gross domestic product (GDP)<sup>15</sup>.

13. The number of establishments is obtained from Statistics Canada’s Business Register and is presented for information purposes only. Fluctuations in these figures from one reference period to another can come from methodological changes (for example, changes to the method for identifying inactive units or in business industrial classification strategies).

14. The publishing includes the newspaper, periodical, book and directory publishing.

15. Statistics Canada. Table 36-10-0401-01 Gross domestic product (GDP) at basic prices, by industry (x 1,000,000)





## 2.3 Specific Characteristics of the Industry

Newspaper and periodical publishers sell customers individual copies of their newspapers and periodicals, as well as subscriptions, which can include online access and print copies, usually on a yearly or monthly basis. They also sell advertising space in their print and online products.

Recently, more newspaper and periodical publishers have elected to circulate a portion of their content for free. They can do this through free circulation, or controlled circulation<sup>16</sup>.

Increased alternatives for advertisers and competition in the market to provide advertising space—specifically new options enabled by the advent of the Internet—have led to a net decline in total advertising revenue for periodical and newspaper publishers. New revenue from online circulation and online advertising has not been sufficient to recover lost revenue from print advertising. The transition to online publishing has also meant that new pricing schemes are available to newspaper and periodical publishers—they are now able to take advantage of user data by implementing soft and hard paywalls, teaser rates or discounted rates to price discriminate.<sup>17</sup> For example, publishers can request student emails (with an institution domain name) to offer lower subscription access to students. Changing industry trends in the pricing and organizational strategies used to adapt to the dynamic internet platform can make it difficult to design new survey questions in a timely and relevant manner, and in ensuring continuity in characteristic data.

In the newspaper and periodical industries, some publishers have been able to retain higher proportions of their readership by writing niche content or relying on branding to set their content apart from that of other newspaper and periodical publishers. These firms are also trying to use their branding to generate new revenue streams by giving readers the opportunity to buy access to experiences or events or to buy physical merchandise. For instance, some newspapers sell access to events featuring their journalists and their experts.

As previously mentioned, Statistics Canada does not publish any figures on the database, directory, and specialty publishers' industry. This industry is extremely concentrated, so Statistics Canada must suppress publication to protect respondent confidentiality. The industry is very small and is declining, as internet search engines have replaced many of the original uses of directories and advertisers can now able to place their marketing content on other websites.

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16. Free circulation refers to unrestricted circulation that is available to the public without charge. Controlled circulation also is available without charge, but is distributed with restrictions, for example, a business periodical distributing free issues to a business association.

17. A soft paywall is a pricing scheme where the firm provides a level of free access and then block users that do not pay a subscription fee. A hard paywall is where none of the content is available if the user does not pay a subscription fee. A teaser rate is a lower subscription rate that allows the user full access, but renews to the full price after a certain number of pay periods.



## 3. Turnover/Output Measurement

### 3.1 General Framework

Output data from these publishing industries are made available to businesses, governments, investors, associations, and the public. By using this data to monitor growth, measure performance, and make comparisons with other data sources, users are able to better understand this industry group. These survey data are also used along with other data by the Canadian System of Macroeconomic Accounts (CSMA) to measure these industries' output, intermediate consumption and value-added in current and constant prices. Industry output is estimated based on operating revenues plus own-account capital formation. Value added is residually as the value of output less the value of non-capital purchased goods and services that are consumed in the production process.

### 3.2 Measurement Methods and Issues

Statistics Canada produces estimates of key variables for the newspaper and periodical publishing industries using both administrative and survey data. The agency surveys these industries at the establishment level using electronic questionnaires. The sample size is 250 enterprises for the periodical publishing industry survey and 100 enterprises for the newspaper publishing industry survey. For these two industries, additional published variables include detailed sales breakdowns by type of newspaper or magazine, expense breakdowns, digital sales, circulation counts, number of titles and circulation by channel of distribution.

Prior to sample selection, units on the Business Register<sup>18</sup> in these industries are stratified into homogenous, categorical groups by NAICS, province, and size<sup>19</sup>. After this step, samples of a predetermined size are allocated into the strata based on these categories. In line with other Integrated Business Statistics Program (IBSP) surveys, samples of establishments above established size thresholds are drawn by methodologists. Businesses below the established size thresholds are ineligible for sampling (Statistics Canada/Statistique Canada 2017). Estimates for this group are based on tax data aggregations only and are not reflected in the published industry characteristic data.

As a part of the IBSP, Statistics Canada uses tax data from the Canadian Revenue Agency to reduce respondent burden, decrease overall survey costs and improve data quality. Administrative data are used as part of a data replacement strategy for a large number of financial variables for most small and medium enterprises, as well as for a selected group of large enterprises. Administrative data are also used as an auxiliary source of data for editing and imputation when respondent data are not available. Data are imported, transformed, validated, and then transformed into the necessary formats, structures, and levels required for IBSP processing.

On an industry level, measuring additional sales streams and circulation from online content and advertising have posed new challenges in measuring industry trends. Data on the characteristics of these industries—which are not available from tax data—are also collected and published for the

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18. The Business Register is Statistics Canada's continuously maintained central repository of baseline information on businesses and institutions operating in Canada. As a statistical register, it provides listing of units and related attributes required for survey sampling frames, data integration, stratification and business demographic statistics.

19. Size is measured using revenue information available from tax data.



newspaper and periodical industries to better understand how changes in these industries are relevant to Canadian public policy. For example, newspapers are categorized into daily newspapers, general community newspapers, and specialised community newspapers. The differences between general and specialized community newspapers can be interpreted differently between data users and providers. In the periodical industry, similar clarifications are often requested to differentiate consumer periodicals from business-to-business, trade, and professional periodicals. Examples of such data include the proportion of sales that come from complimentary or online circulation. However, characteristic data are harder to collect as concepts are not always measured or interpreted uniformly by respondents, and are often not static.

Both the NEWS and the PERI surveys are administered in partnership with Department of Canadian Heritage as a part of a cost-recovery program. Changes to these surveys are often required as policy priorities change, which can be driven by new technologies that impact the business model of those industries.

Furthermore, the type of characteristics information pertinent to end users tends to change as the industry evolves, which poses challenges in the continuity of published data. The changing online landscape has made it necessary for the revenue-generating strategies employed within these industries to continually evolve, and, as a result, it can be challenging to develop consistent and relevant questions as technology evolves. Other changes in industry structures caused by significant mergers and acquisitions have also created measurement challenges, as collecting and categorizing the data by geography can require more intricate processes—such as provincial allocations—to accurately measure the true value of output for these industries.

## 4. Evaluation of Measurement

Statistics Canada estimates the value of output in current prices of the periodical and newspaper publishers industries using estimates of operating revenues, own-account software production and own-account research and development. However, output estimates should also ideally include comprehensive measures of the value of intellectual property produced, the enduring value of the publishers' products and copyrights, as well as any data collected that could be sold, specifically user data and web traffic data. Currently, such intangibles are, in principle, valued as the present value of the assets as a part of total actual revenue earned, which are measured through the business surveys.

This is particular to these industries since these intangible assets tend to be built-in house. In theory, additional information on output from these sources could be published; however, current estimates on software, research and development, and physical assets from other surveys are insignificant in these industries and do not appear to merit the additional response burden for further investigation.

As well, year-to-year changes in output are subject to challenges. Year-to-year output estimates rely on “imputed” data during years where there is not full survey coverage. In addition, there are currently no producer price indexes for the services of newspaper, periodical, or database, directory and specialty publishing industries. Instead, the CSMA deflates the output of these industries using the all-services CPI from which taxes have been removed.



## 5. Conclusion

This paper has discussed the framework in which statistics are produced for the newspaper, periodical, and database, directory and specialty publishing industries, as well as the challenges and processes when these statistics are used to produce estimates on industry output. By doing so, this paper also describes the efforts and strategies Statistics Canada has adopted towards ensuring that the data published are accurate, timely, and relevant.

The ever-changing Internet landscape has presented the periodical, newspaper and database, directory, and specialty publishing industries with both opportunities and challenges. To continue to produce relevant and accurate data and to accurately measure these industries, Statistics Canada has implemented new processes to produce the estimates required to create the SUTs and output estimates. In addition, content on industry characteristics have been modified to ensure it remains relevant and satisfies the needs of external clients and key end-users. The disseminated outputs are designed to help users better understand these industries and provide empirical support for policy or decision making in Canada.

Due to the pace of technological change and its impact on the competitive landscape in which these industries operate, continued efforts are required to review and update content in order to ensure it remains relevant. Any new or significantly modified questions are tested for comprehension and readability to ensure that concepts are fully understood by respondents, and that the outputs produced are meaningful. Furthermore, other data sources—including administrative data—are reviewed and integrated into the program to help produce high quality industry estimates, reduce response burden, and address the growing demand from data users and clients for more detailed information.



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## Appendix A

### **Newspaper Publishers - NAICS 511110**

This Canadian industry comprises establishments primarily engaged in carrying out operations necessary for producing and distributing newspapers. These establishments may publish newspapers in print, electronic form or online.

#### *Illustrative example(s)*

- Newspapers, publishing
- Newspapers, publishing and printing

#### *Inclusion(s)*

- Gathering news, writing news columns, feature stories and editorials; and selling and preparing advertisements
- Publishing newspapers in print, electronic form or online

#### *Exclusion(s)*

- printing, but not publishing, newspapers (see 32311 Printing)
- selling media time or space for media owners (see 541840 Media representatives)
- supplying information, such as news, reports and pictures, to the news media (see 519110 News syndicates)

(North American Industry Classification System (NAICS) Canada, Version 3.0 2017)



## Appendix B

### Periodical Publishers - NAICS 511120

This Canadian industry comprises establishments, known as magazine or periodical publishers, primarily engaged in carrying out operations necessary for producing and distributing magazines and other periodicals. Periodicals are published at regular intervals, typically on a weekly, monthly or quarterly basis. These periodicals may be published in print, electronic form or online.

#### *Illustrative example(s)*

- advertising periodicals, publishing
- comic books in issue format, publishing
- magazine publishing
- newsletters publishing
- periodicals, all formats, publishing

#### *Inclusion(s)*

- gathering, writing, soliciting and editing articles, and preparing and selling advertisements, in periodical publishing
- publishing periodicals in print, electronic form or online

#### *Exclusion(s)*

- printing, but not publishing, periodicals (see 32311 Printing)
- publishing directories and databases (see 511140 Directory and mailing list publishers)
- publishing newspapers (See 511110 Newspaper publishers)
- publishing sheet music (See 512230 Music publishers)
- selling media time or space for media owners (See 541840 Media representatives)

(North American Industry Classification System (NAICS) Canada, Version 3.0 2017)



## Appendix C

### Directory and Mailing List Publishers – NAICS 511140

This Canadian industry comprises establishments primarily engaged in publishing compilations and collections of information or facts that are logically organized to facilitate their use. These collections may be published in one or more formats, such as print, electronic form or online. Electronic versions may be provided directly to customers by the establishment or third party vendors.

#### *Illustrative example(s)*

- address and mailing list compilers
- directories, publishing
- electronic database (machine readable) publishing
- telephone directories, publishing

#### *Inclusion(s)*

- providing electronic versions of directories and mailing lists directly to customers by the establishment or third party vendors
- publishing directories and mailing lists in one or more formats such as print, electronic form or online.

#### *Exclusion(s)*

- designing, developing and publishing computer software products (See 51121 Software publishers)
- duplicating electronic media, such as CD-ROMs and DVDs (See 334610 Manufacturing and reproducing magnetic and optical media)
- printing, but not publishing, business directories, telephone books and similar products (See 32311 Printing)
- providing on-line access to databases developed by others (See 519130 Internet broadcasting and web search portals)
- publishing encyclopaedias (See 511130 Book Publishers)

(North American Industry Classification System (NAICS) Canada, Version 3.0 2017)





## Appendix D

### **Products Mapped to Publishing Industries**

#### **Printed Products**

MPG511111 – Newspapers

MPG5111A1 – Periodicals

MPG5111A2 – Books

MPG5111A3 – Other published products

MPS519001 – Subscriptions to Internet sites and contents

#### **Advertising Products**

MPS511112 – Advertising space in newspapers

MPS5111A4 – Advertising space in periodicals and other published printed products

MPS519002 – Advertising space on the Internet

MPS541800 – Advertising, public relations and related services



### **Writing Guides Consulted**

APA Style Appendix Writing: <http://rasmussen.libanswers.com/faq/33090>

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