

**Golden Anniversary Assessment of Eldon’s “Review of Federal Transportation Statistics” for the Royal Commission on Transportation (MacPherson Commission)**

Gordon G. Baldwin,  
gordbaldwin@sympatico.ca

**Introduction**

In July 1962, as part of the MacPherson Commission, formally known as the Royal Commission on Transportation, there was published a review of the Federal transportation statistics by Professor Donald Eldon.<sup>1</sup> As we have come to the golden anniversary of the Royal Commission assessment, this paper attempts to assess what has improved, and where the identified data gaps and problems remain in the Federal transportation statistics program.

**Data Gaps or Problems Identified by the Royal Commission That Have Subsequently Been Filled or Corrected**

Given the time period that has passed, some of the data voids identified have, at least to some degree, been filled and some of the problems corrected in the intervening years.

**Commodity Data**

Eldon had several complaints with respect to the commodity data:

- “The main gap in statistics of truck traffic is the paucity of commodity data. Commodity data are limited to six broad categories...”<sup>2</sup>

- “No commodity breakdown is provided for urban trucks.”<sup>3</sup>
- “There are no commodity data at all for air cargo...”<sup>4</sup>
- “The commodity classification used is that of the Association of American Railroads, and so does not coincide with that used by the Dominion Bureau of Statistics for other statistical series, such as international trade.”<sup>5</sup>

For these four issues, progress has been made on three:

- More detailed trucking commodity detail is available in Statistics Canada’s Trucking Commodity Origin and Destination survey.
- Urban trucking movements have been included in Statistics Canada’s Trucking Origin Destination survey since reference year 2004. At this time the Trucking Commodity Origin and Destination survey was redesigned “to include the local shipments of long distance carriers and all shipments of local carriers”.<sup>6</sup>
- The rail, marine and trucking commodity data released by Statistics Canada are on the same Standard Classification of Transported Goods (SCTG). The SCTG: “consists of a blend of transportation characteristics, commodity similarities, and industry-of-origin considerations, designed to create statistically significant categories. It is a structured list that is defined at its less-detailed levels according to the Harmonized Commodity Description and Coding System (HS), and at more-detailed levels, according to patterns of industrial activity. Other factors in the definition of categories were transportation considerations such as volume, revenue, value, origin, and destination.

SCTG is a Canada-U.S. initiative, designed to provide categories for the 1997 U.S. Commodity Flow Survey (CFS) and to improve the integration of Canadian transportation data, particularly for marine, truck, and rail. The classification is also designed to permit comparison of Canadian and U.S. transportation data. In addition, because

of its HS basis, SCTG can be used for other international comparisons. SCTG is an important development in the creation of an integrated system of classification that is used for economic analysis, covering production, shipments, and international trade.”<sup>7</sup>

While this makes modal comparisons easier and even comparisons with the US Commodity Flow Survey easier as all use the SCTG, the international trade data are released on a Harmonized System basis.

No major progress has been made in the provision of air cargo data for transportation analysis but Transport Canada, as part of its Air Cargo Competitiveness initiative, has been trying to negotiate access to air cargo trade documentation filed with the Canada Border Services Agency.<sup>8</sup>

### **Rate Information**

Eldon wrote “The pricing of transport services is so significant in competition among carriers, in public regulation of the industry, and in the costs of important manufacturing and primary industries, that an Index of Freight Rates should be designed to fill a gaping hole in our present statistics”.<sup>9</sup>

Significant progress has been made in this area:

- Since 1983, Statistics Canada’s Fare Basis Survey “represents a regular and comprehensive source of fare type-specific data on passengers, revenues, and average air fares. The Fare Basis Survey estimates the average air fare paid and the proportion of passengers for each fare type (first class, business class, economy class, discount and other) for Canadian scheduled air carriers. The data are available by domestic and international sector, by province, and for

selected cities.”<sup>10</sup> A series of regular air fare indexes are released from this survey.<sup>11</sup>

- Since 2003, Statistics Canada’s Couriers and Messengers Services Price Index (CMSPI) has provided “a monthly price index measuring the change over time in prices for courier and messenger services provided by long and short distance delivery companies to Canadian-based business clients. The courier services portion includes deliveries within and between Canadian cities and provinces/territories, as well as some international deliveries. The local messenger portion tracks price change for within-city deliveries only.”<sup>12</sup>
- Since 2007, Statistics Canada’s For-Hire Motor Carrier Freight Services Price Index “measures the monthly price movement for the For-Hire Motor Carrier Freight industry. It is an important tool for providing a better deflator to the System of National Accounts and a more accurate measure of productivity from the trucking sector. The estimates are produced on a quarterly basis.”<sup>13</sup>

For rail, Statistics Canada has developed a rail freight price index as part of its Services Producer Price Index Program. The index is based on the direct use of prices of repeated services, collected by internet pricing. “Using the turnover data for the two dominant companies (together accounting for about 94% of the rail freight activity) in the industry, a representative list of commodities transported along with main routes are established and then priced from the websites of the two main freight rail transport companies. The specifications and terms of are held constant when the list or tariff prices are collected. The companies (respondents) have pointed out that while these prices were not actual contract prices, they did represent a good proxy for their company’s price change regime, reflecting the impact of underlying elements of supply/demand, fuel charges, etc.”<sup>14</sup> These data may not be released due to confidentiality restrictions but are available to the System of National Accounts for deflation purposes.

### **Passenger Traffic Survey**

Eldon recommended a survey be conducted every 5 to 10 years “to provide statistics on “passenger flow between various regions by each means of transport...based on reports from carriers, hotels and motels, and from the passengers themselves.”<sup>15</sup> While the methodology is different from that proposed by Eldon, Statistics Canada has a quarterly survey, the Travel Survey of Residents of Canada (which replaced the Canadian Travel Survey in 2005). “The Travel Survey of Residents of Canada is sponsored by Statistics Canada, the Canadian Tourism Commission, the provincial governments and two federal organizations. It measures the size of domestic travel in Canada from the demand side. The objectives of the survey are to provide information about the volume of trips and expenditures for Canadian residents by trip origin, destination, duration, type of accommodation used, trip reason, mode of travel, etc.; to provide information on travel incidence and to provide the socio-demographic profile of travellers and non-travellers. Estimates allow quarterly analysis at the national, provincial and tourism region level (with varying degrees of precision)”.<sup>16</sup>

### **Advisory Committee**

The report recommended the “establishment of a Committee on Transportation statistics under the chairmanship of the Dominion Statistician or his nominee. Representatives of the Dominion Bureau of Statistics [now Statistics Canada] should be assisted on this committee by representatives of the carriers, or the federal and provincial regulatory authorities, and of important industrial users of transport statistics”.<sup>17</sup>

While the membership is more limited than that suggested by Eldon, there exists Statistics Canada’s Federal-Provincial-Territorial Committee on Transportation Statistics which reports to the Federal-Provincial-Territorial Consultative Council on Statistical Policy. The former is chaired by the Director, Transportation Division, Statistics

Canada, has members from the provinces and territories and both Transport Canada and the Canadian Transportation Agency.<sup>18</sup>

### **Integrated Passenger Statistics**

Eldon recommended that “Statistics of passenger traffic now scattered through a number of periodicals should be integrated in one publication”.<sup>19</sup> While Statistics Canada publications still are generally modal in nature, summary tables including passenger information for aviation and rail can be found on the Statistics Canada website Summary Tables section.<sup>20</sup> Transport Canada’s publication *Transportation in Canada Addendum Tables and Figures* (TP15147E) has data in various tables showing passenger traffic for rail, urban transit, and air and cruise ships.<sup>21</sup>

### **Responsibility for Publication**

Eldon recommended that “Responsibility for the publication of statistics by the Government of Canada belongs primarily to the Dominion Bureau of Statistics....It is true that individual government departments and boards must prepare statistics for their own internal use tailored to their specification...The danger is that the statistics produced by a board or department will supersede those of the Dominion Bureau of Statistics....It is recommended, therefore, that the Dominion Bureau of Statistics publish all of the transport statistics issued by the Federal Government”.<sup>22</sup>

The bulk of the federal transportation data are released to the public by Statistics Canada. In addition to regular free publications<sup>23</sup>, data on many time series of transportation data may be accessed upon demand through the free (as of February 2012) CANSIM system.<sup>24</sup> The Air Passenger Origin and Destination reports that had been produced by the Air Transport Board at the time of Eldon’s recommendation were subsequently moved to the Dominion Bureau of Statistics (now Statistics Canada) with the creation of the Aviation

Statistics Centre, a satellite section, part of Statistics Canada's transportation Division.

### **Data Gaps and Problems Identified by the Royal Commission That Remain**

#### **Marine data**

Eldon was quite critical of the data then published on the marine industry: "The publication which is supposed to deal with the Canadian merchant marine is not much use—*Water Transportation*. Experts in shipping matters declare it is not worth the paper it is written on".<sup>25</sup> Statistics Canada discontinued the Annual Survey of Water Carriers after the 2003 reference year and ceased producing estimates based on administrative data after the 2008 reference year.<sup>26</sup>

#### **Speed and Frequency of Transportation Service**

Eldon noted that "no statistics exist which give any useful information on speed and frequency of service".<sup>27</sup> Transport Canada has proposed attempting to measure at least some aspects of the speed of service. In February 2011, they published proposed amendments to regulations to enable them to collect from "Canadian and foreign air carriers which carried over 10 000 tons of freight in Canada in the previous year...time-oriented information on the movement of goods within their supply chain, whether they participate or not in the International Air Transport Association's (IATA) Cargo 2000 program; meaning they would provide the time and date at which a shipment is handed to the carrier, the time and date at which said shipment is ready to be picked up by the consignee and the time and date of major steps within the supply chain. This information will help the government measure the velocity of the air supply chain."<sup>28</sup>

Formatted: Normal, Justified

### Time Lags

Eldon notes: “Long delays in publications reduce the usefulness of the information published, and any speeding of publication enhances the value of the statistics”<sup>29</sup> Examples he cites of delay are “Many publications appear more than a year after the close of the period covered. Delays of six to nine months in publication are more frequent than lesser delays”.<sup>30</sup>

Statistics Canada does indicate when data are available in advance of a publication release in the form of data availability announcements in their *The Daily* electronic publication. Table 1 shows time lags cited by Eldon and recent lags by the closest matching publications and/or data availability announcements. The time lags are amazingly consistent between 1958 and 2010 data although some improvements have been made.

**Table 1 – Timeliness of Transport Statistics, Eldon and Recent**

<b>Catalogue number</b>	<b>Title</b>	<b>Period</b>	<b>Time Lag</b>
52-207	Railway Transport	1958	14 months
The Daily	Rail transportation	2009	14 months
53-207	Motor Transport Traffic	1958	18 months
The Daily	Quarterly Trucking Survey	2Q 2011	10 months
53-215	Passenger Bus Statistics	1958	15 months
The Daily	Canadian Passenger Bus and Urban Transit Industries	2009 preliminary	15 months



<b>Catalogue number</b>	<b>Title</b>	<b>Period</b>	<b>Time Lag</b>
66-201	Travel between Canada and Other Countries	1958	9 months
The Daily	Travel between Canada and Other Countries	October 2011	2 months
53-216	Urban Transit	1958	11 months
50-002	Canadian Passenger Bus and Urban Transit Industries	2009	15 months
54-202	Shipping Report International Seaborne Shipping	1958	10 months
54-204	Shipping Report Coastwise Shipping	1958	11 months
The Daily	Domestic and International Shipping	2010	11 months
51-202	Civil Aviation	1958	11 months
The Daily	Civil Aviation Operating and Financial Statistics	2011	12 months

### **Conclusion**

Professor Eldon's *Review of Federal Transportation Statistics* suggested many areas where improvement was required in Federal transportation statistics. The review suggests that, over the past 50 years, there have been many improvements addressing the data gaps or problems identified by Professor Eldon especially in the areas of commodity data, rate information, passenger traffic, an advisory

committee, integrated passenger statistics, and data publication. There do, however, remain areas where further improvement is required such as in marine data, the measurement of the speed and frequency of transportation service, time lags in data releases. Some potential solutions to some of these that have been proposed are cited in the paper.

#### **Note**

The views and opinions expressed in this paper are those of the author.

#### **Endnotes**

---

<sup>1</sup> Royal Commission on Transportation, Royal Commission on Transportation Volume III, July 1962, “Review of Federal Transportation Statistics” by Donald Eldon, University of Western Ontario, pages 409-544

<sup>2</sup> Eldon, page 442

<sup>3</sup> Eldon, page 442

<sup>4</sup> Eldon, page 443

<sup>5</sup> Eldon, page 440

<sup>6</sup> Statistics Canada, The Daily, “Trucking Commodity Origin and Destination Survey 2004 (preliminary)”, Friday March 16, 2007

<sup>7</sup> Statistics Canada website, <http://www.statcan.gc.ca/subjects-sujets/standard-norme/sctg-ctbt/sctgintro-ctbtintro-eng.htm>

<sup>8</sup> Transportation Research Board North American Freight Flows Conference, Irvine CA, September 16, 2009, presentation by Michel Villeneuve, Director, Transportation Statistics, Transport Canada, presentation “Canada’s Needs for Improved Freight Flow Data”, slide 8,

<http://onlinepubs.trb.org/onlinepubs/conferences/2009/NAFF/Villeneuve.pdf>,

<sup>9</sup> Eldon, page 412

- 
- <sup>10</sup> Statistics Canada, <http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=2708&lang=en&db=imdb&adm=8&dis=2>, accessed January 5, 2012
- <sup>11</sup> Statistics Canada, <http://www.statcan.gc.ca/pub/51-004-x/51-004-x2011002-eng.pdf>, accessed January 27, 2012
- <sup>12</sup> Statistics Canada, <http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=5064&lang=en&db=imdb&adm=8&dis=2>, accessed January 5, 2012
- <sup>13</sup> Statistics Canada, <http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=5136&lang=en&db=imdb&adm=8&dis=2>, accessed January 5, 2012
- <sup>14</sup> Fred Barzyk (Statistics Canada) and Bernhard Goldhammer (Federal Statistics Office, Germany), “Sector paper on Rail Freight Transportation Services”, page 4, 25<sup>th</sup> Voorburg Group Meeting, Vienna Austria, September 2010, <http://www.voorburggroup.org/Documents/2010%20Vienna/Papers/2010%20-%202004.pdf>, accessed January 5, 2012
- <sup>15</sup> Eldon, page 412
- <sup>16</sup> Statistics Canada, <http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=3810&lang=en&db=imdb&adm=8&dis=2>, accessed January 18, 2012
- <sup>17</sup> Eldon, page 413
- <sup>18</sup> Statistics Canada, <http://www.statcan.gc.ca/about-apercu/relevant-pertinente-eng.htm#council>, accessed January 27, 2012
- <sup>19</sup> Eldon, page 414
- <sup>20</sup> Statistics Canada, <http://www5.statcan.gc.ca/subject-sujet/result-resultat.action?pid=4006&id=4006&lang=eng&type=CST&sortType=1&pageNum=1&more=0>, accessed January 25, 2012
- <sup>21</sup> Transport Canada, <http://www.tc.gc.ca/media/documents/policy/addendum2010.pdf>, accessed on February 25, 2012
- <sup>22</sup> Eldon, page 417
- <sup>23</sup> Statistics Canada, <http://www5.statcan.gc.ca/subject-sujet/theme-theme.action?pid=4006&lang=eng&more=0>, accessed January 25, 2012

---

<sup>24</sup> Statistics Canada, <http://www5.statcan.gc.ca/cansim/directory-repertoire?lang=eng&groupid=401&csid=>, accessed January 25, 2012

<sup>25</sup> Eldon, page 451

<sup>26</sup> Statistics Canada, <http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getMainChange&SurvId=2753&SurvVer=3&InstaId=16437&SDDS=2753&lang=en&db=imdb&adm=8&dis=2>, accessed January 18, 2012

<sup>27</sup> Eldon, page 414

<sup>28</sup> Canada Gazette, Vol. 145, No. 8 — February 19, 2011, Regulations Amending the Carriers and Transportation and Grain Handling Undertakings Information Regulations, <http://gazette.gc.ca/rp-pr/p1/2011/2011-02-19/html/reg9-eng.html>, accessed January 24, 2012

<sup>29</sup> Eldon, page 416

<sup>30</sup> Eldon, page 461