

# SUT extensions

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Seminar on the Supply and Use Tables

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STATISTICS CANADA  
ONE HUNDRED YEARS AND COUNTING

STATISTIQUE CANADA  
CENT ANS BIEN COMPTÉS



Statistics  
Canada

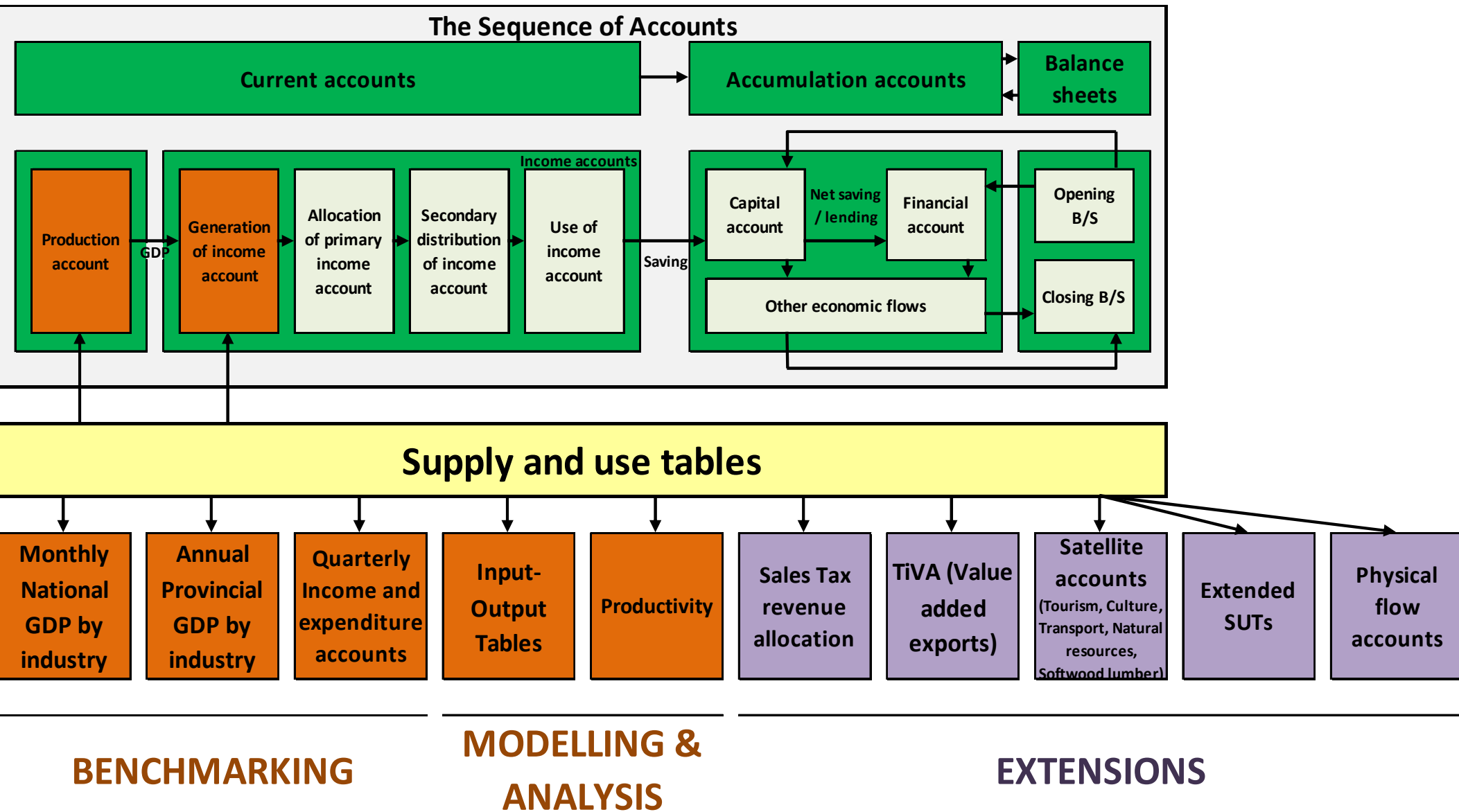
Statistique  
Canada

Canada



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# Uses of SUTs in Canada



# Recap: Uses of SUTs

## Conventional uses

- Benchmarking
  - Quarterly Income and Expenditure Accounts
  - Monthly National GDP by industry
  - Annual Provincial GDP by industry
  - Sector accounts
- Symmetric Input-Output Tables

## Extensions

- Satellite accounts
  - Tourism Satellite Account
  - Culture Satellite Account
  - **Transportation Satellite Account**
  - Natural Resources Satellite Account
  - Softwood Lumber Satellite Account
- Extended SUTs
- Global value chains
  - TiVA (Trade in value added)
  - Value added in exports





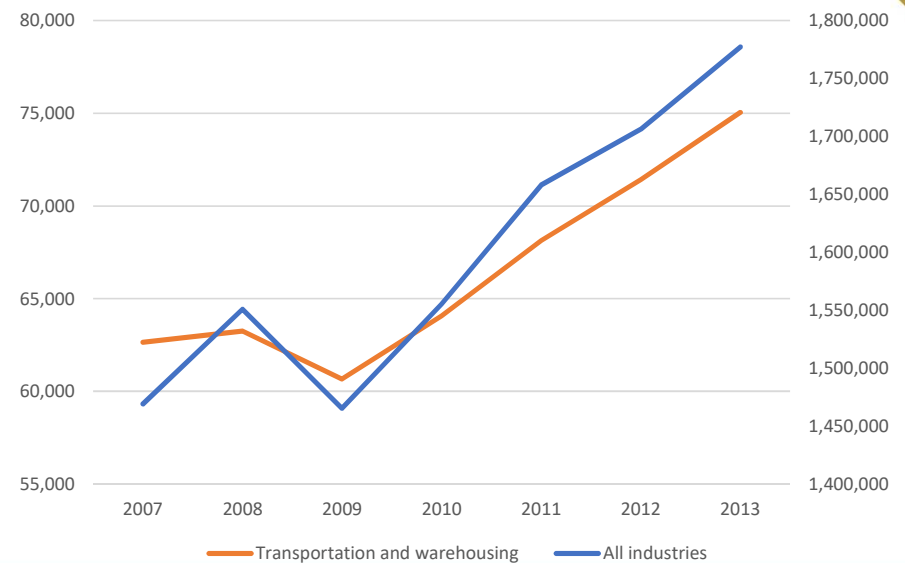
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# Focus on the Transportation Satellite Account

# Importance of transportation

- Transportation is an important activity and important sector in the economy, contributing \$75 billion (4.1%) to total Canada value added in 2013
- It has a direct impact on the economy-wide demand for energy, infrastructure needs and on our environmental footprint

Gross Value Added of the Transportation sector in comparison with total Canadian economy



# For-hire vs own-account

- But is this measure truly reflective of the total GVA of transportation as an activity?
- Transportation services can be categorized as either:
  - For-hire services (services rendered on a fee basis); or
  - Own-account services (services produced for own use e.g. a retailer using their own fleet of trucks)



# For-hire vs own-account

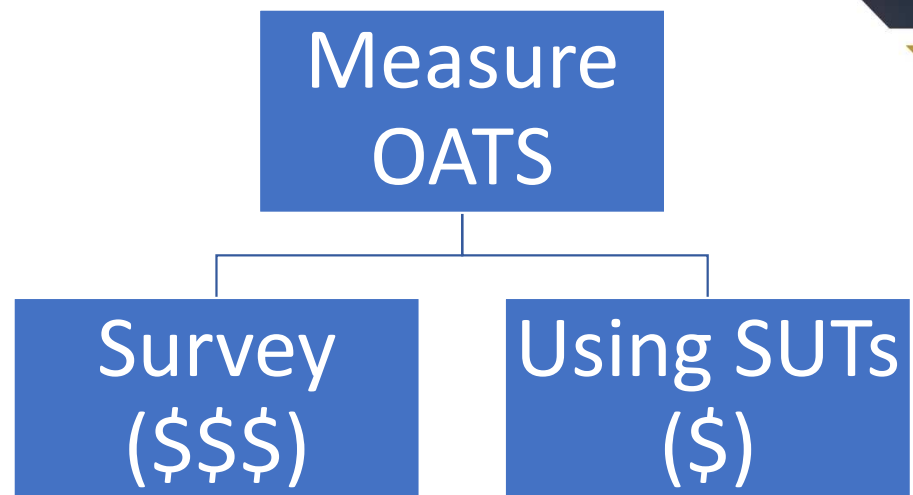
- SUTs only measure 'for-hire' transportation services that are sold on the market
- Own-account transportation activity does not explicitly appear in industry output since there is no observable sale of a transportation service that takes place
- As such, the total contribution of the transportation activity taking place in the economy is currently not directly observable in the SUTs
- By how much would the output of the transportation sector increase if own-account transportation services (OATS) were added?





# How to measure OATS?

- It would be difficult to ask a respondent how much OATS they are generating (because there is no explicit revenue generated)
- It may be possible, however, to obtain a measure of the transportation-related expenses e.g. gasoline, diesel, compensation of truck drivers
- Could be:
  1. Special survey with specific questions on transportation costs
- OR
  2. By making some assumptions and using the SUTs and other sources





# The Transportation Satellite Account

(Canadian Transportation Economic Account)

- Based on the supply, use and input-output accounts
- Reorganization and an extension of these accounts to provide a detailed and comprehensive view of transportation activities.
- Explicitly measures the contribution of own-account transportation to the economy for the main four modes (air, rail, water, truck).
- Fully integrated with Canada's macroeconomic accounts
- Adds 4 new own-account industries and 4 new own-account products added to the existing 230 industries and 490 products of the Canadian SUTs

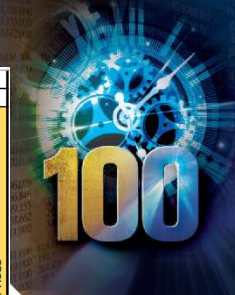
# Condensed CTEA – Supply table

TEA 2013 - Supply table

| R2013<br>Products (billions) in basic prices  | Output                   |   |           |              |               |                 |              |                                |           |          |           |           |                                     |  |          |                      |                         |   |            |  |                       |           |                              |             |              |            |              |       |
|---|--------------------------|---|-----------|--------------|---------------|-----------------|--------------|--------------------------------|-----------|----------|-----------|-----------|-------------------------------------|--|----------|----------------------|-------------------------|---|------------|--|-----------------------|-----------|------------------------------|-------------|--------------|------------|--------------|-------|
|   | Agriculture and forestry | Mining, Quarrying, and Oil and Gas Extraction | Utilities | Construction | Manufacturing | Wholesale Trade | Retail Trade | Transportation and warehousing |           |          |           |           | Information and Cultural Industries | Professional and administrative services | Finance  | Health and education | Leisure and hospitality | Other Services (except Public Administration) | Government | Non-Profit Institutions Serving Households | Total Domestic Supply | Imports   | Total Supply at basic prices |             |              |            |              |       |
|   |                          |   |           |              |               |                 |              | for-hire                       |           |          |           |           |                                     |  |          |                      |                         |   |            |  |                       |           |                              | own-account |              |            |              |       |
|   |                          |   |           |              |               |                 | air          | rail                           | water     | truck    | other     | air       | rail                                | water                                    | truck    |                      |                         |   |            |  |                       |           |                              |             |              |            |              |       |
| Agriculture and forestry                      | 79                       |   |           |              | 2             |                 |              |                                |           |          |           |           |                                     |  |          |                      |                         |   |            |  |                       |           |                              |             |              |            |              |       |
| Mining, Quarrying, and Oil and Gas Extraction |                          | 214   | 0         | 1            | 2             |                 |              |                                |           |          |           |           |                                     |  |          |                      |                         |   |            |  |                       |           |                              |             |              |            |              |       |
| Utilities                                     |                          | 0   | 45        |              | 0             |                 |              |                                |           |          |           |           |                                     |  |          |                      |                         |   |            |  |                       |           |                              |             |              |            |              |       |
| Construction                                  |                          |   |           | 320          |               |                 |              |                                |           |          |           |           |                                     |  |          |                      |                         |   |            |  |                       |           |                              |             |              |            |              |       |
| Manufacturing                                 | 0                        | 1   | -         | -            | 611           | 2               | 1            | -                              | -         | -        | -         | 0         | -                                   | -  | -        | -                    | 0                       | 0   | -          | -  | 0                     | -         | 1                            | -           |              | 617        | 447          | 1,064 |
| Wholesale Trade                               | 0                        | 0   | 0         |              | 9             | 134             |              |                                |           |          |           | 0         |                                     |  |          |                      | 0                       | 2   | -          | -  | -                     | 0         |                              |             |              | 145        | 1            | 146   |
| Retail Trade                                  |                          | 0   |           |              |               | 0               | 130          | 0                              | 0         |          | 0         | 0         |                                     |  |          |                      | 0                       | 0   | 1          | -  | 5                     | 0         | 1                            |             |              | 138        | 1            | 140   |
| Transportation and warehousing                | 1                        | -   | -         | -            | 2             | -               | -            | 21                             | 12        | 5        | 47        | 61        | 1                                   | 1  | 1        | 39                   | 0                       | -   | -          | -  | 0                     | -         | 1                            | -           |              | 192        | 14           | 206   |
| for hire                                      | 1                        |   |           |              | 2             |                 |              | 21                             | 12        | 5        | 47        | 61        |                                     |  |          |                      | 0                       | -   | -          | -  | 0                     | -         | 1                            | -           |              | 150        | 14           | 164   |
| air   | 0                        |   |           |              |               |                 |              | 20                             | -         | -        | -         | 0         |                                     |  |          |                      | -                       | -   | -          | -  | 0                     | -         | 0                            | -           |              | 20         | 8            | 28    |
| rail  | -                        |   |           |              |               |                 |              | -                              | 12        | 0        | -         | -         |                                     |  |          |                      | -                       | -   | -          | -  | -                     | 0         | -                            | -           |              | 12         | 0            | 13    |
| water   | -                        |   |           |              |               |                 |              | -                              | -         | 5        | -         | 0         |                                     |  |          |                      | -                       | -   | -          | -  | -                     | 0         | -                            | -           |              | 5          | 0            | 5     |
| truck   | 1                        |   |           |              |               |                 |              |                                |           |          |           |           |                                     |  |          |                      | -                       | -   | -          | -  | -                     | -         | -                            | -           |              |            | 2            | 2     |
| other   | -                        |   |           |              | 2             |                 |              | 1                              | 0         | 0        | 2         | 61        |                                     |  |          |                      | 0                       | -   | -          | -  | -                     | 1         | -                            |             |              | 66         | 4            | 70    |
| own-account                                   |                          |   |           |              |               |                 |              |                                |           |          |           |           | 1                                   | 1  | 1        | 39                   |                         |   |            |  |                       |           |                              |             |              | 41         | -            | 41    |
| air   |                          |   |           |              |               |                 |              |                                |           |          |           |           | 1                                   |  |          |                      |                         |   |            |  |                       |           |                              |             |              | 1          | -            | 1     |
| rail  |                          |   |           |              |               |                 |              |                                |           |          |           |           |                                     | 1  |          |                      |                         |   |            |  |                       |           |                              |             |              | 1          | -            | 1     |
| water   |                          |   |           |              |               |                 |              |                                |           |          |           |           |                                     |  | 1        |                      |                         |   |            |  |                       |           |                              |             |              | 1          | -            | 1     |
| truck   |                          |   |           |              |               |                 |              |                                |           |          |           |           |                                     |  |          | 39                   |                         |   |            |  |                       |           |                              |             |              | 39         | -            | 39    |
| Information and Cultural Industries           |                          |   |           |              | 2             | 1               |              | 0                              |           |          |           | 0         |                                     |  |          |                      | 84                      | 4   | 0          | -  | -                     | 1         | 0                            |             |              | 92         | 9            | 100   |
| Professional and administrative services      | 0                        | 7   | 2         | 1            | 16            | 10              | 7            | 0                              | 0         | 0        | 0         | 1         | -                                   | -  | -        | -                    | 11                      | 228   | 148        | 0  | 1                     | 1         | 26                           | 0           | 459          | 36         | 495          |       |
| Finance                                       | 0                        | 0   | 2         | 2            | 1             | 3               | 1            | 0                              | 0         | 0        | 0         | 1         | -                                   | -  | -        | -                    | 1                       | 1   | 363        | -  | 2                     | 0         | 5                            | 1           | 384          | 14         | 398          |       |
| Health and education                          | -                        | -   | -         | -            | -             | -               | -            | -                              | -         | -        | -         | -         | -                                   | -  | -        | -                    | 0                       | 0   | -          | 72   | -                     | 24        | 6                            |             | 103          | 2          | 104          |       |
| Leisure and hospitality                       | 0                        | 0   | -         | 0            | 0             | -               | 1            | 0                              | 0         | 0        | 0         | 0         | -                                   | -  | -        | -                    | 0                       | 0   | 0          | -  | 92                    | 0         | 5                            | 3           | 103          | 23         | 126          |       |
| Other Services (except Public Administration) | 0                        |   |           |              | 2             | 5               | 5            |                                |           |          | 0         | 1         |                                     |  |          |                      | 0                       | 0   | 1          | -  | 1                     | 37        | 2                            | 1           | 56           | 1          | 57           |       |
| Government                                    | -                        | -   | -         | -            | -             | -               | -            | -                              | -         | -        | -         | -         | -                                   | -  | -        | -                    | -                       | -   | -          | -  | -                     | 403       | -                            |             | 403          | -          | 403          |       |
| Non-Profit Institutions Serving Households    | -                        | -   | -         | -            | -             | -               | -            | -                              | -         | -        | -         | -         | -                                   | -  | -        | -                    | -                       | -   | -          | -  | -                     | -         | 30                           |             | 30           | -          | 30           |       |
| <b>Total</b>                                  | <b>80</b>                | <b>222</b>                                    | <b>49</b> | <b>324</b>   | <b>646</b>    | <b>155</b>      | <b>145</b>   | <b>21</b>                      | <b>13</b> | <b>5</b> | <b>48</b> | <b>65</b> | <b>1</b>                            | <b>1</b>                                 | <b>1</b> | <b>39</b>            | <b>97</b>               | <b>235</b>                                    | <b>513</b> | <b>72</b>                                  | <b>98</b>             | <b>43</b> | <b>480</b>                   | <b>43</b>   | <b>3,395</b> | <b>604</b> | <b>3,998</b> |       |

# Condensed CTEA – Use table

| R2013<br>Products (billions) in basic prices  | TEA 2013 - Use table     |   |           |              |               |                 |              |                                |          |          |           |           |          |             |          |           |           |                                     |  |           |                      |                         |   |            |  |                    |   |   |   | Final uses                    |                        |                       |       | Total Use | GDP at Market Prices |
|---|--------------------------|---|-----------|--------------|---------------|-----------------|--------------|--------------------------------|----------|----------|-----------|-----------|----------|-------------|----------|-----------|-----------|-------------------------------------|--|-----------|----------------------|-------------------------|---|------------|--|--------------------|---|---|---|-------------------------------|------------------------|-----------------------|-------|-----------|----------------------|
|   | Intermediate consumption |   |           |              |               |                 |              |                                |          |          |           |           |          | Final uses  |          |           |           |                                     |  |           |                      |                         |   |            |  |                    |   |   |   |                               |                        |                       |       |           |                      |
|   | Agriculture and forestry | Mining, Quarrying, and Oil and Gas Extraction | Utilities | Construction | Manufacturing | Wholesale Trade | Retail Trade | Transportation and warehousing | for-hire |          |           |           |          | own-account |          |           |           | Information and Cultural Industries | Professional and administrative services | Finance   | Health and education | Leisure and hospitality | Other Services (except Public Administration) | Government | Non-Profit Institutions Serving Households | Total Industry Use | Household final consumption expenditure | Non-profit institutions serving households' final consumption expenditure | Governments final consumption expenditure | Gross fixed capital formation | Changes in inventories | International exports |       |           |                      |
|   |                          |   |           |              |               |                 |              |                                | air      | rail     | water     | truck     | other    | air         | rail     | water     | truck     |                                     |  |           |                      |                         |   |            |  |                    |   |   |   |                               |                        |                       |       |           |                      |
|   |                          |   |           |              |               |                 |              |                                | air      | rail     | water     | truck     | other    | air         | rail     | water     | truck     |                                     |  |           |                      |                         |   |            |  |                    |   |   |   |                               |                        |                       |       |           |                      |
| Agriculture and forestry                      | 15                       | 0   | 0         | 1            | 38            | 0               | 0            | 0                              | 0        | 0        | 0         | 0         | 0        | 0           | 0        | 0         | 0         | 0                                   | 2  | 0         | 1                    | 0                       | 0   | 0          | 0  | 56                 | 11                                      | -   | -   | -                             | 3                      | 23                    | 93    |           |                      |
| Mining, Quarrying, and Oil and Gas Extraction | 1                        | 20  | 2         | 18           | 89            | 1               | 0            | 0                              | 0        | 0        | 0         | 0         | 1        | 0           | 0        | 0         | 0         | 0                                   | 1  | 0         | 0                    | 0                       | 1   | 0          | 0  | 135                | 3                                       | -   | -   | -                             | 9                      | 1                     | 113   | 260       |                      |
| Utilities                                     | 1                        | 3   | 0         | 0            | 9             | 1               | 1            | 0                              | 0        | 0        | 0         | 0         | 0        | 1           | 0        | 0         | 0         | 0                                   | 1  | 4         | 1                    | 1                       | 1   | 4          | 1  | 30                 | 24                                      | -   | -   | -                             | -                      | 2                     | 56    |           |                      |
| Construction                                  | 1                        | 2   | 2         | 0            | 1             | 1               | 1            | 0                              | 1        | 0        | 0         | 0         | 1        | 0           | 0        | 0         | 0         | 0                                   | 1  | 16        | 0                    | 1                       | 0   | 7          | 0  | 36                 | 0                                       | -   | -   | 283                           | -                      | -                     | 320   |           |                      |
| Manufacturing                                 | 18                       | 22  | 1         | 85           | 221           | 5               | 3            | 6                              | 2        | 1        | 9         | 6         | 0        | 0           | 0        | 7         | 9         | 12                                  | 8  | 6         | 17                   | 4                       | 27  | 4          | 475  | 208                | -                                       | -   | 69  | 9                             | 302                    | 1,064                 |       |           |                      |
| Wholesale Trade                               | 3                        | 4   | 0         | 13           | 22            | 2               | 1            | 0                              | 0        | 0        | 1         | 1         | 0        | 0           | 0        | 1         | 2         | 1                                   | 1  | 2         | 1                    | 7                       | 7   | 1          | 64   | 41                 | -                                       | -   | 14  | -                             | 27                     | 146                   |       |           |                      |
| Retail Trade                                  | 1                        | 0   | 0         | 5            | 13            | 0               | 0            | 0                              | 0        | 0        | 0         | 0         | 0        | 0           | 0        | 1         | 2         | 1                                   | 1  | 1         | 5                    | 1                       | 6   | 1          | 37   | 104                | -                                       | -   | 2   | 0                             | 1                      | 140                   |       |           |                      |
| Transportation and warehousing                | 5                        | 6   | 1         | 10           | 31            | 14              | 9            | 4                              | 1        | 2        | 11        | 7         | 0        | 0           | 0        | 2         | 2         | 7                                   | 6  | 1         | 3                    | 2                       | 11  | 1          | 137  | 33                 | -                                       | -   | 2   | -                             | 34                     | 206                   |       |           |                      |
| for hire                                      | 2                        | 3   | 0         | 5            | 25            | 7               | 3            | 4                              | 1        | 2        | 11        | 7         | 0        | 0           | 0        | 2         | 1         | 4                                   | 5  | 1         | 1                    | 1                       | 8   | 1          | 96   | 33                 | -                                       | -   | 2   | -                             | 34                     | 164                   |       |           |                      |
| air   | 0                        | 0   | 0         | 1            | 0             | 0               | 0            | 0                              | 0        | 0        | 1         | 0         | 0        | 0           | 0        | 1         | 2         | 2                                   | 0  | 0         | 0                    | 0                       | 1   | 0          | 10   | 13                 | -                                       | -   | -   | -                             | 4                      | 28                    |       |           |                      |
| rail  | 0                        | 0   | 0         | 1            | 3             | 1               | 0            | 0                              | 0        | 0        | 1         | 0         | 0        | 0           | 0        | 0         | 0         | 0                                   | 0  | 0         | 0                    | 0                       | 0   | 0          | 6  | 1                  | -                                       | -   | -   | -                             | 5                      | 12                    |       |           |                      |
| water   | 0                        | 0   | 0         | 0            | 0             | 0               | 0            | 0                              | 0        | 1        | 0         | 0         | 0        | 0           | 0        | 0         | 0         | 0                                   | 0  | 0         | 0                    | 0                       | 0   | 0          | 3  | 0                  | -                                       | -   | -   | -                             | 2                      | 5                     |       |           |                      |
| truck   | 2                        | 1   | 0         | 3            | 10            | 1               | 0            | 0                              | 0        | 0        | 8         | 3         | 0        | 0           | 0        | 0         | 0         | 0                                   | 0  | 0         | 0                    | 0                       | 1   | 0          | 31   | 6                  | -                                       | -   | -   | 1                             | -                      | 10                    | 49    |           |                      |
| other   | 0                        | 1   | 0         | 1            | 11            | 5               | 3            | 4                              | 1        | 1        | 3         | 1         | 0        | 0           | 0        | 2         | 1         | 1                                   | 3  | 0         | 0                    | 0                       | 5   | 1          | 45   | 12                 | -                                       | -   | -   | -                             | 13                     | 70                    |       |           |                      |
| own-account                                   | 3                        | 3   | 0         | 5            | 6             | 7               | 6            |                                |          |          |           |           |          |             |          | 0         | 3         | 1                                   | 0  | 2         | 1                    | 3                       | 0   | 41         |  |                    |   |   |   |                               |                        | 41                    |       |           |                      |
| air   | 0                        | 0   | 0         | 0            | 0             | 0               | 0            | 0                              | 0        | 0        | -         | -         | -        | -           | -        | -         | -         | -                                   | -  | -         | -                    | -                       | -   | 0          |  |                    |   |   |   |                               |                        | 1                     |       |           |                      |
| rail  | 0                        | 0   | 0         | 0            | 0             | 0               | 0            | 0                              | 0        | 0        | -         | -         | -        | -           | -        | -         | -         | -                                   | -  | -         | -                    | -                       | -   | 1          |  |                    |   |   |   |                               |                        | 1                     |       |           |                      |
| water   | 1                        | 0   | 0         | 0            | 0             | 0               | 0            | 0                              | 0        | 0        | -         | -         | -        | -           | -        | -         | -         | 0                                   | 0  | 0         | 0                    | 0                       | 1   |            |  |                    |   |   |   |                               |                        | 1                     |       |           |                      |
| truck   | 2                        | 2   | 0         | 5            | 6             | 7               | 6            |                                |          |          | -         | -         | -        | -           | -        | 0         | 3         | 1                                   | 0  | 2         | 1                    | 2                       | 0   | 39         |  |                    |   |   |   |                               |                        | 39                    |       |           |                      |
| Information and Cultural Industries           | 0                        | 1   | 0         | 1            | 3             | 5               | 3            | 0                              | 0        | 0        | 0         | 1         | 0        | 0           | 0        | 0         | 15        | 6                                   | 9  | 1         | 2                    | 1                       | 6   | 1          | 58   | 36                 | -                                       | -   | 0   | 0                             | 6                      | 100                   |       |           |                      |
| Professional and administrative services      | 3                        | 25  | 5         | 39           | 23            | 25              | 22           | 1                              | 1        | 0        | 3         | 5         | 0        | 0           | 0        | 4         | 9         | 37                                  | 89                                       | 4         | 8                    | 4                       | 32  | 3          | 340  | 11                 | -                                       | -   | 51  | -                             | 35                     | 437                   |       |           |                      |
| Finance                                       | 2                        | 3   | 0         | 8            | 10            | 8               | 17           | 1                              | 0        | 0        | 2         | 3         | 0        | 0           | 0        | 2         | 4         | 12                                  | 26                                       | 4         | 6                    | 3                       | 9   | 4          | 125  | 299                | -                                       | -   | 17  | -                             | 15                     | 456                   |       |           |                      |
| Health and education                          | 0                        | 0   | 0         | 0            | 0             | 0               | 0            | 0                              | 0        | 0        | 0         | 0         | 0        | 0           | 0        | 0         | 0         | 1                                   | 0  | 0         | 0                    | 0                       | 50  | 0          | 53   | 49                 | -                                       | -   | -   | -                             | 2                      | 104                   |       |           |                      |
| Leisure and hospitality                       | 0                        | 0   | 0         | 0            | 2             | 2               | 2            | 1                              | 0        | 0        | 0         | 1         | 0        | 0           | 0        | 0         | 1         | 4                                   | 3  | 1         | 2                    | 1                       | 4   | 1          | 23   | 91                 | -                                       | -   | -   | -                             | 11                     | 126                   |       |           |                      |
| Other Services (except Public Administration) | 1                        | 2   | 0         | 1            | 2             | 0               | 0            | 0                              | 0        | 0        | 1         | 2         | 0        | 0           | 0        | 2         | 1         | 4                                   | 4  | 1         | 1                    | 1                       | 5   | 1          | 29   | 28                 | -                                       | -   | -   | -                             | 0                      | 57                    |       |           |                      |
| Government                                    | 0                        | 0   | 0         | 0            | 0             | 0               | 0            | 0                              | 0        | 0        | 0         | 0         | 0        | 0           | 0        | 0         | 0         | 1                                   | -  | -         | 0                    | 0                       | 4   | 6          | 2  | -                  | 394                                     | -   | -   | -                             | 1                      | 403                   |       |           |                      |
| Non-Profit Institutions Serving Households    | 0                        | 0   | 0         | 0            | 0             | 0               | 0            | 0                              | 0        | 0        | -         | -         | -        | -           | -        | -         | -         | -                                   | -  | -         | -                    | 1                       | 1   | 1          | 3  | 26                 | -                                       | -   | -   | -                             | -                      | 30                    |       |           |                      |
| <b>Total Intermediate use</b>                 | <b>50</b>                | <b>88</b>                                     | <b>13</b> | <b>182</b>   | <b>466</b>    | <b>64</b>       | <b>59</b>    | <b>14</b>                      | <b>5</b> | <b>4</b> | <b>27</b> | <b>29</b> | <b>0</b> | <b>0</b>    | <b>1</b> | <b>19</b> | <b>44</b> | <b>87</b>                           | <b>170</b>                               | <b>22</b> | <b>50</b>            | <b>17</b>               | <b>174</b>                                    | <b>18</b>  | <b>1,604</b>                               | <b>945</b>         | <b>26</b>                               | <b>394</b>  | <b>443</b>                                | <b>14</b>                     | <b>572</b>             | <b>3,998</b>          |       |           |                      |
| <b>Value-added</b>                            | <b>1</b>                 | <b>1</b>                                      | <b>0</b>  | <b>2</b>     | <b>1</b>      | <b>1</b>        | <b>1</b>     | <b>0</b>                       | <b>0</b> | <b>0</b> | <b>2</b>  | <b>1</b>  | <b>0</b> | <b>0</b>    | <b>0</b> | <b>2</b>  | <b>0</b>  | <b>1</b>                            | <b>7</b>                                 | <b>2</b>  | <b>1</b>             | <b>0</b>                | <b>2</b>                                      | <b>1</b>   | <b>25</b>                                  | <b>90</b>          | <b>-</b>                                | <b>-</b>  | <b>17</b>                                 | <b>-</b>                      | <b>0</b>               | <b>133</b>            |       |           |                      |
| Taxes on products                             | -1                       | -   | 0         | -1           | -             | 0               | -            | 1                              | -        | 0        | -         | 0         | -        | 0           | -        | 0         | -         | 4                                   | -  | 0         | -                    | 2                       | -   | 0          | -  | -12                | -                                       | -   | -   | -                             | -                      | -                     | -     | -12       |                      |
| Subsidies on products                         | -                        | 1   | 134       | 37           | 140           | 180             | 90           | 85                             | 7        | 7        | 2         | 19        | 39       | 0           | 0        | 0         | 18        | 52                                  | 148                                      | 337       | 51                   | 47                      | 25  | 303        | 24   | 1,777              | -                                       | -   | -   | -                             | -                      | -                     | 1,777 |           |                      |
| GVA   | 31                       | 134   | 37        | 140          | 180           | 90              | 85           | 7                              | 7        | 2        | 19        | 39        | 0        | 0           | 0        | 18        | 52        | 148                                 | 337                                      | 51        | 47                   | 25                      | 303   | 24         | 1,777                                      | -                  | -                                       | -   | -   | -                             | -                      | -                     | 1,777 |           |                      |
| Subsidies on production                       | -1                       | -   | 0         | -            | 0             | -               | 0            | -                              | 0        | -        | 0         | -         | 0        | -           | 0        | -         | 0         | -                                   | 2  | -         | 1                    | -                       | 0   | -          | -  | -                  | -                                       | -   | -   | -                             | -                      | -                     | -     | -5        |                      |
| Taxes on production                           | 2                        | 2   | 3         | 8            | 3             | 3               | 4            | 0                              | 0        | 0        | 1         | 2         | 0        | 0           | 0        | 1         | 1         | 1                                   | 48                                       | 1         | 1                    | 0                       | 5   | 0          | 87   |                    |   |   |   |                               |                        |                       | 87    |           |                      |
| Wages and salaries                            | 7                        | 30  | 10        | 79           | 86            | 47              | 56           | 4                              | 3        | 1        | 10        | 19        | 0        | 0           | 0        | 10        | 18        | 89                                  | 75                                       | 22        | 32                   | 17                      | 25  | 20         | 829  |                    |   |   |   |                               |                        |                       | 829   |           |                      |
| Employers' social contribution                | 1                        | 4   | 3         | 9            | 23            | 6               | 6            | 1                              | 1        | 0        | 1         | 4         | 0        | 0           | 0        | 1         | 3         | 7                                   | 10                                       | 2         | 3                    | 1                       | 42  | 3          | 132  |                    |   |   |   |                               |                        |                       | 132   |           |                      |
| Gross mixed income                            | 10                       | 0   | 0         | 20           | 0             | 1               | 3            | 0                              | 0        | 0        | 2         | 1         | 0        | 0           | 0        | 2         | 1         | 21                                  | 137                                      | 14        | 2                    | 3                       | -   | -          | 216  |                    |   |   |   |                               |                        |                       | 216   |           |                      |
| Gross operating surplus                       | 12                       | 98  | 22        | 24           | 68            | 34              | 16           | 2                              | 4        | 0        | 5         | 13        | 0        | 0           | 0        | 5         | 30        | 30                                  | 67                                       | 13        | 9                    | 5                       | 61  | 1          | 518  |                    |   |   |   |                               |                        |                       | 518   |           |                      |



# Data sources

- Supply and use tables
- Supply and demand of primary and secondary energy in natural units
  - Annual Survey on End-Use of Refined Petroleum Products
  - Annual Survey of Secondary Distributors of Refined Petroleum Products
- Population census



# Methodology: General steps

1. Estimate the inputs (IC and GVA) used by non-transportation industries for OAT activity by mode.
2. Move these inputs from the non-transportation industry's use tables to the new OATS industry's use tables by mode.
3. Calculate gross output for the OATS industries by aggregating all inputs under one OATS output product for each mode.
4. Re-balance the non-transportation industries' use tables by replacing the inputs removed with the newly created OATS output products as an intermediate expense, such that the output=input identity is once again satisfied.



# Methodology: Step 1 in more detail

- Identify Transportation-Related Inputs (TRIs)
  - Products primarily used to for transportation e.g. diesel, tires
- Determine TRIs used for own-account transportation
  - From total supply of the TRI product, determine the portion used as IC
  - Split IC by purpose of use (transportation vs non-transportation)
  - Split by mode the IC used for the purpose of transportation (air, water, rail, trucking)
  - Subtract for-hire use to obtain use for own-account
- Spread to industries using employment of transport workers from census
- Estimate non-TRI and value added inputs using ratios from the for-hire industries by mode.



# Results: OATS use by Industry

- Own-account transportation output in air, rail, water and trucking is collectively estimated to be \$41.4 billion (\$19.3B in gross value added)
- Industries using the most OATS are wholesale, manufacturing, retail and construction.

| Industry (\$million)        | Air        | Rail       | Water      | Truck         | Total         |
|-----------------------------|------------|------------|------------|---------------|---------------|
| 11 – Agriculture & forestry | 0          | 26         | 652        | 2,099         | <b>2,777</b>  |
| 21 – Mining, Oil & Gas      | 307        | 232        | 51         | 2,366         | <b>2,956</b>  |
| 22 – Utilities              | 0          | 16         | 7          | 156           | <b>178</b>    |
| 23 – Construction           | 39         | 82         | 29         | 4,673         | <b>4,823</b>  |
| 3A – Manufacturing          | 0          | 213        | 54         | 5,705         | <b>5,973</b>  |
| 41 – Wholesale Trade        | 0          | 0          | 124        | 7,354         | <b>7,477</b>  |
| 4A – Retail Trade           | 0          | 0          | 0          | 5,797         | <b>5,797</b>  |
| 51 – Info & Cultural        | 0          | 0          | 0          | 292           | <b>293</b>    |
| 5A – Professional / admin   | 0          | 3          | 3          | 2,852         | <b>2,858</b>  |
| 5B – Finance                | 0          | 0          | 0          | 1,190         | <b>1,190</b>  |
| 60 – Health & education     | 0          | 0          | 0          | 362           | <b>362</b>    |
| 70 – Leisure & hospitality  | 0          | 0          | 15         | 2,295         | <b>2,310</b>  |
| 81 – Other Services         | 0          | 0          | 0          | 1,319         | <b>1,319</b>  |
| GS – Government             | 301        | 0          | 13         | 2,493         | <b>2,808</b>  |
| NP – NPISH                  | 0          | 0          | 0          | 269           | <b>269</b>    |
| <b>Total</b>                | <b>647</b> | <b>572</b> | <b>949</b> | <b>39,223</b> | <b>41,391</b> |

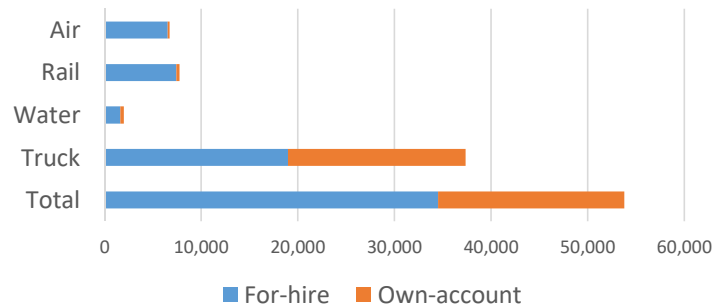


# Results

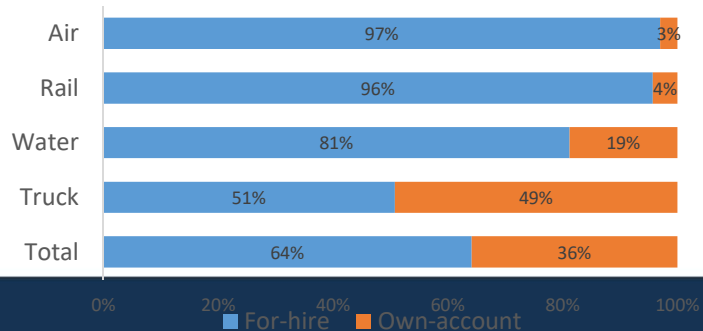
## OATS GVA by Mode

- In 2013, the GVA of the for-hire air, rail, water, and truck transportation industries in Canada was \$34.5B(64%) billion.
- The GVA of the own-account air, rail, water, and truck transportation industries was \$19.3 billion(36%).
- By mode, the largest contribution to OATS GVA is seen in trucking at 49%, the smallest in air at 3%

Own-account vs For-hire GVA Levels (\$millions)



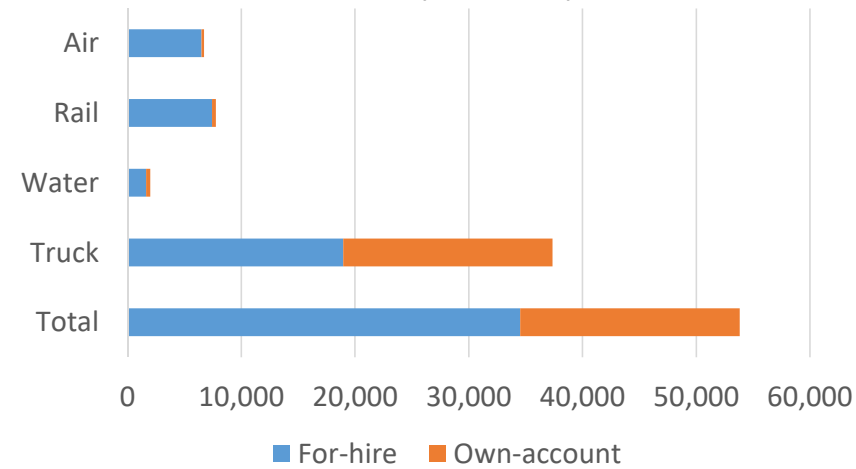
GVA - Shares



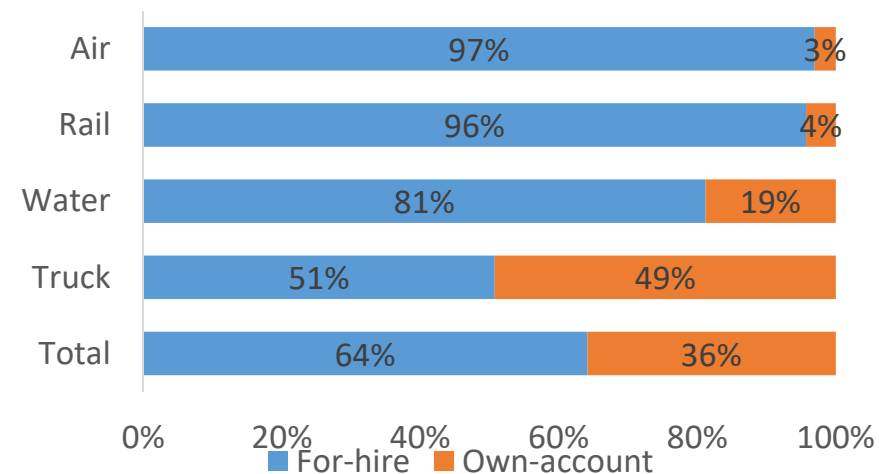
# Results: OATS GVA by mode

- In 2013, the GVA of the for-hire air, rail, water, and truck transportation industries in Canada was \$34.5B (64%) billion.
- The GVA of the own-account air, rail, water, and truck transportation industries was \$19.3 billion (36%).
- Adding OATS increases the GVA of the various modes of transport by:
  - Air: 3%
  - Rail: 4%
  - Water: 23%
  - Trucking: 97%
  - Total: 56%

Own-account vs For-hire  
GVA Levels (\$millions)



GVA - Shares



# Resources

- [Article on the release of the 2013 Canadian Transportation Economic Account](#)
- [Canadian Transportation Economic Account: Sources and Methods](#)

# THANK YOU!

For more information,  
please visit

[www.statcan.gc.ca](http://www.statcan.gc.ca)



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Canada

A graphic in the top right corner featuring a blue and yellow globe with data points, overlaid with the number '100' in a large, bold, blue font. The background is dark blue with faint data tables.