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Tourism Satellite Account: Demand-Supply Reconciliation

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Telling Canada's
story in numbers

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**Regional Workshop on the Compilation
of the Tourism Satellite Account**

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Canada 



Outline

- Setting the framework
- Understanding data sources
- Defining tourism commodities
- Defining tourism industries
- Measuring tourism domestic supply
- Reconciling supply and demand
- Measuring tourism's economic contribution

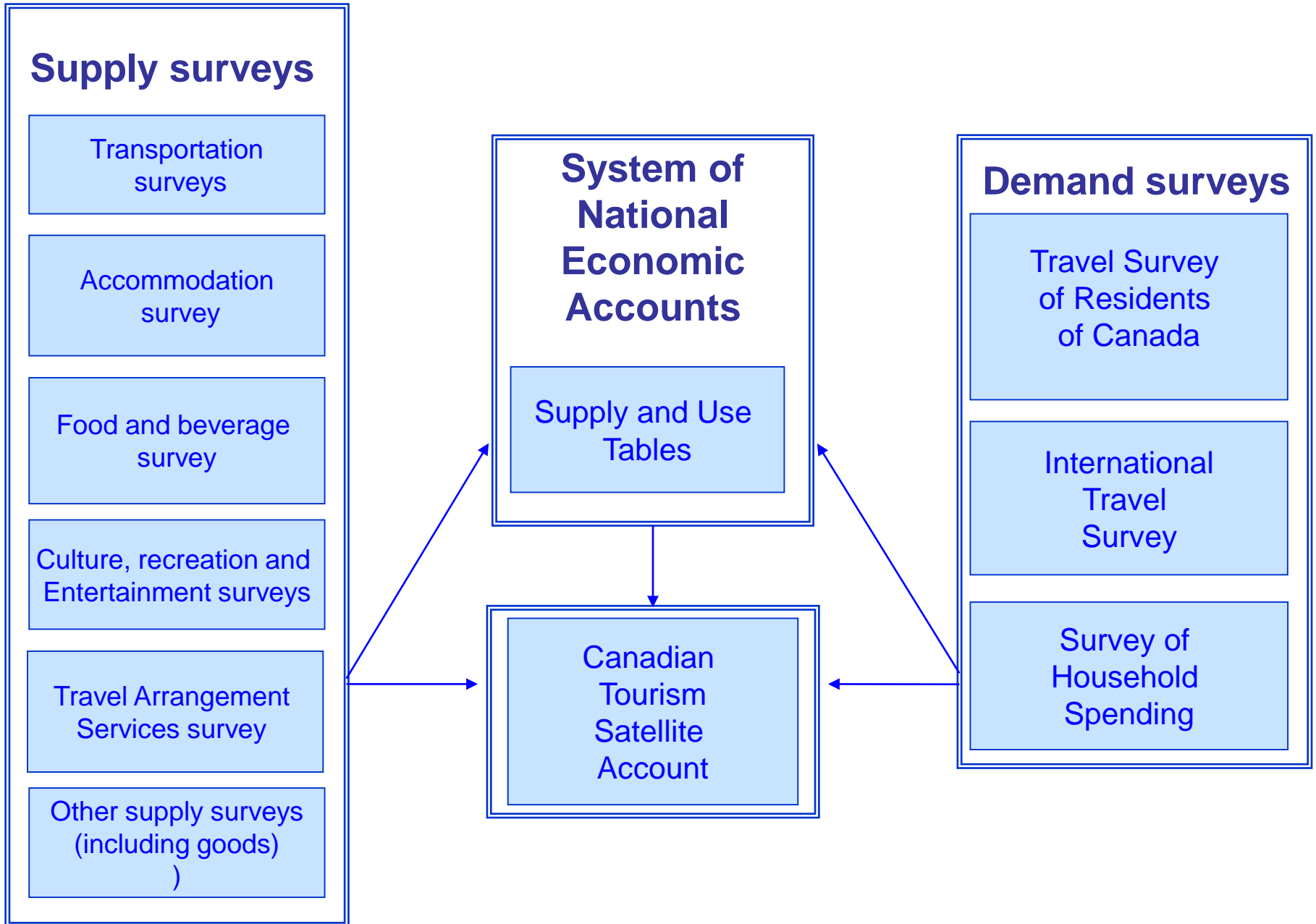




Understanding data sources

- What is the source of your data?
 - administrative source
 - business survey
 - household survey
 - tax data
- How reliable are they?
 - Coverage or timing issues?
 - Census versus sample?
 - Regular versus irregular?
 - Are they available on consistent basis over time?
 - Do definitions match the concepts?
- What was the purpose behind the data
 - Are data designed for one purpose but used for another?
- How large is the demand / supply discrepancy?
- What do other indicators reveal?

Measurement Framework





Tourism Commodities

- Tourism commodities in CTSA
 - comparable with list in IRTS 2008
 - Exclude: vacation homes, tourist guide/information services
- Some are country-specific for Canada
 - vehicle fuel, repairs and parts, motion picture exhibition
 - significant part of the demand in Canada comes from visitors
- Include tourism-single purpose consumer durable goods
 - Comparable with list in TSA:RMF
 - Except: planes and boats
- Also include non-tourism commodities often purchased by visitors

TSA commodities reflect merging of demand and supply side classifications

- Limited details on demand side
 - Some differences in commodity categories
- Considerable detail on supply side
- Need to convert to a common commodity classification for the TSA
- This requires:
 - Splitting out more detail on the demand side
 - Aggregating details on the supply side

Tourism spending by Canadians in Canada, 2012

Travel Survey of Residents of Canada expenditure categories	millions of dollars
Transportation fares	4,468
Local transportation	448
Vehicle rental	557
Vehicle operation	11,755
Accommodation	6,196
Food and beverages from restaurants and bars	9,752
Food and beverages in stores	3,975
Recreation and entertainment	3,269
Clothing	4,507
Other costs	1,739
Tourism domestic demand	46,667



Non-resident tourism spending in Canada, 2012

International Travel Survey expenditure categories	millions of dollars
International fares	3,288
Transportation in Canada	1,690
of which:	
a. air transportation	54
b. other commercial transportation	482
c. rented car	513
d. private transportation	362
e. unknown transportation	278
Accommodation	4,434
Food and beverages	3,274
Recreation and entertainment	1,351
Other	2,005
Tourism international demand	16,342

Supply and Use Tables and TSA product aggregations

Level of aggregation	Number of goods and services and primary inputs	Canadian Tourism Satellite Account Commodities
Published	>400	25
Working level	>400	>200



Products of the Canadian Tourism Satellite Account

- **Total Transportation**
- Passenger air
- Passenger rail
- Passenger water
- Interurban, charter and tour bus
- Taxis
- Vehicle rental
- Vehicle repairs and parts
- Vehicle fuel

- **Total Accommodation**
- Hotels
- Motels
- Camping
- Other accommodation

- **Total Food and Beverage Services**
- Meals from accommodation
- Meals from restaurants
- Alcoholic beverages from accommodation
- Alcoholic beverages from restaurants
- Meals and alcoholic beverages from other tourism industries

- **Total Other Tourism Commodities**
- Recreation and entertainment
- Travel agency services
- Convention fees
- Single purpose consumer durables

- **Total Other Commodities Purchased By Tourists**
- Groceries
- Beer, wine & liquor from stores
- Urban transit & parking
- Miscellaneous commodities

Tourism Industries

- Tourism industries in CTSA,
 - comparable with IRTS 2008
 - Except real estate services for second homes, rental and leasing of recreational and sporting goods
- Tourism industries produce tourism and non-tourism commodities
- Similarly, non-tourism industries produce non-tourism and tourism commodities
- SUT reveal these structural details



Supply and Use Tables – TSA industries

Level of aggregation	Number of industries	Canadian Tourism Satellite Account Industries
Published	236	14
Working level	236	77

Tourism Industries of the Canadian Tourism Satellite Account

- **Transportation:** Air, water, rail, bus, taxis, vehicle rental
- **Accommodation:** Motels, hotels, camping grounds, and other accommodation
- **Food and beverage services**
- **Recreation and entertainment**
- **Travel services**
- **Other industries** (produce commodities purchased by visitors such as groceries, alcoholic beverages from stores, and other miscellaneous items)

- All above exclude non-tourism sub-industries
 - Rooming and boarding, catering, agents and promoters



Measuring tourism supply

- Tourism domestic supply defined as the total production in Canada of tourism goods and services
- Note that tourism domestic supply excludes:
 - Services in Canada from non-resident producers
 - example, passenger air from NR carriers in Canada not included
 - Tourism services from NT industries are also excluded
 - example: accommodation services from rooming houses
 - assumption here is that rooming houses serve only non-visitors
- Aim of these exclusions:
 - to reconcile better with estimates of internal tourism consumption



Structural details on product outputs by industry - example

Table 1 Tourism domestic supply of the food services and drinking places industry - hypothetical example

Commodity	Food services and drinking places industry (and sub-industries)				
	Industry total I	Full-service restaurants ii	Limited-service eating places iii	Special food services iv	Drinking places (alcoholic beverages) v
	millions of dollars				
Distilled alcoholic beverages, licensed premises	1,200	800	0	0	400
Beer, including coolers, licensed premises	1,600	1,000	0	0	600
Wine, including coolers, licensed premises	900	500	0	0	400
Retailing margins	440	50	40	300	50
Royalties and license fees	380	50	30	300	0
Non-residential rents	40	10	10	10	10
Other amusement and recreation services	40	10	12	10	8
Other accommodation services	30	10	10	0	10
Meals (outside home)	13,200	6,000	4,000	3,000	200
Other personal services	40	10	10	10	10
Rental, other machinery and equipment	80	20	20	20	20
Domestic supply (gross output) at basic price:	17,950	8,460	4,132	3,650	1,708
Of which:					
Tourism domestic supply	13,990	8,330	4,032		1,628

Note: Tourism commodities and elements of tourism domestic supply in shaded areas.



Toward reconciliation

- Several calculations are made to make demand consistent with supply to fill data gaps and to adhere to SNA and international TSA standards
 - Domestic portion of international trips
 - Canadian fares of international trips
 - Domestic tourism of the residents of the territories
 - Travel agents commission
 - Tourism single-purpose consumer durable goods
 - Demand to supply reconciliation



Measuring tourism demand – Canadian Tourism Satellite Account, 2012

	<i>(millions of dollars)</i>
Survey data	
Domestic demand (TSRC)	46,667
International demand (ITS)	16,042
	62,709
Additions	
Canadian fares of outbound international trips	9,043
Domestic demand (territories)	253
Pre-trip expenditures	3,493
Travel agents commissions	4,078
Total of additions	16,867
Demand to Supply reconciliation	584
Tourism Demand	80,159



Reconciling demand and supply

- Reconciliation in CTSA unlike in SUT because tourism demand less than tourism supply
- Before confrontation however, several adjustments made to bring two closer together
 - Restrict measure of domestic supply
 - Aggregate commodities so definitions are same
 - Convert to purchaser price valuation
 - Coverage adjustments for items not in travel surveys
- Even after these adjustments demand may be “too high” or “too low” given the supply



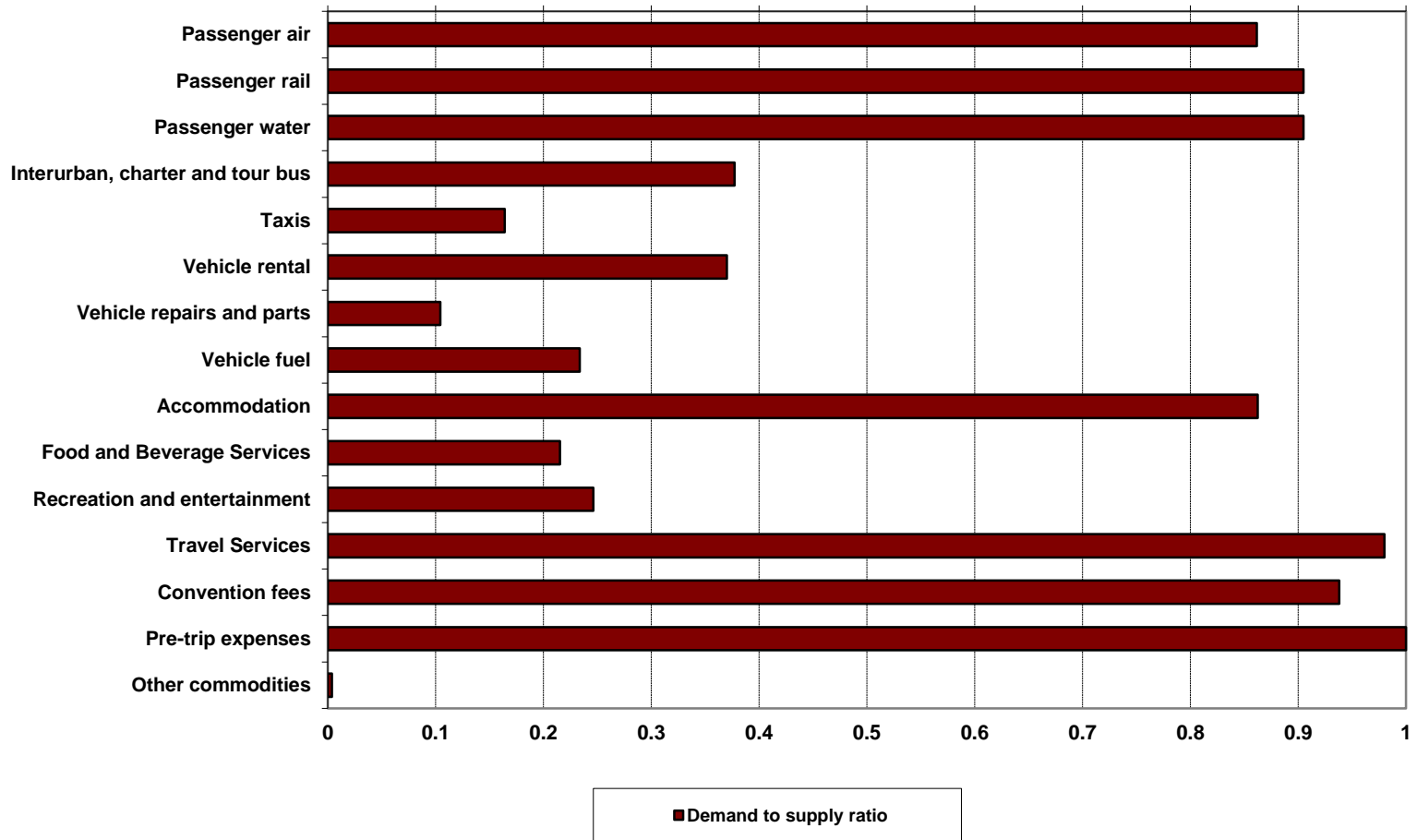
Demand and supply reconciliation

- Supply and demand of tourism commodities compared at a fairly detailed level
- Differences lead to deeper questioning and investigation of the concepts, definitions, sources and methods of the data on both sides, to attempt to explain the difference.
- The demand and supply side estimates are adjusted-guided by
 - the results of further investigations
 - relative confidence in the supply versus the demand side estimates



Tourism demand to supply (product) ratios important tool in reconciliation exercise

Tourism demand to supply (commodity) ratios, CTSA 2012





Demand and Supply Reconciliation - Accommodation - 2012	
	\$ millions
Survey data	
Domestic demand from the Travel Survey of Residents of Canada	6,196
International demand from the International Travel Survey	4,434
Adjustment/additions to survey data	
Domestic Demand (Territories), Travel agents Commissions, and Accommodation spending associated with nights spent in homes of friends and relatives	52
Total tourism demand before reconciliation with supply	10,682
Total Supply	12,474
Tourism Commodity Ratio (Total Demand / Total Supply) before reconciliation with Supply	85.6
Reconciliation adjustment	77
Total tourism Demand after reconciliation with Supply	10,759
Total Tourism Demand Published, CTSA 2012	10,759
Total Supply	12,474
Tourism Commodity Ratio (Total Demand / Total Supply) after reconciliation with Supply	86.2



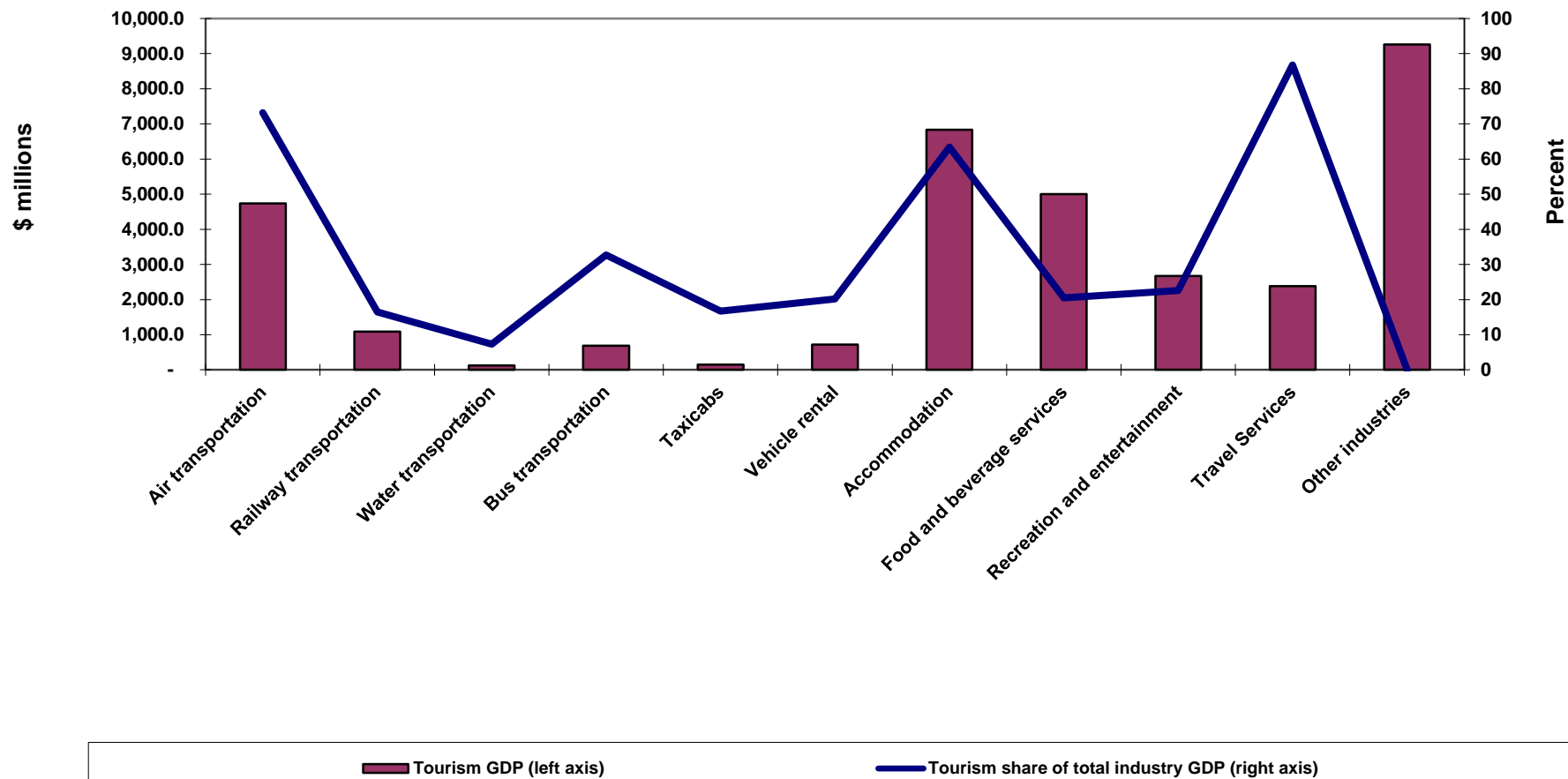
Tourism's economic contribution

- Measure the direct effects of visitor spending on industry value added at basic prices in CTSA
- Lack information on visitor spending by industry
- Structural details of SUT used to convert visitor spending by commodity to industry basis
 - Then determine fraction of industry gross output sold to visitors
 - Apply this ratio to industry value added



GDP directly attributable to tourism: \$33.6 billion in 2012; 2.0% of economy-wide GDP

Tourism Gross Domestic Product, CTSA 2012





Demand and supply reconciliation

- The Demand-Supply reconciliation is an important step in the final derivation of demand estimates in the CTSA.
- The process performs a check on the various data sources.



Thank you

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