

Terms of Reference for a Review of the International Visitor Survey.

20th December 2017

Background

The 2013 redevelopment of the International Visitor Survey

In late 2011, the Ministry of Business, Innovation and Employment (MBIE) initiated a review of the International Visitor Survey (IVS). This review arose out of recommendations from the Tourism Data Domain Plan, with a redevelopment of the IVS given the highest priority ranking.

Although the previous IVS provided good quality estimates of total international tourism spend, a redevelopment was required to solve a number of problems, including:

1. A lack of precision within expenditure estimates from tourism markets smaller than Australia
2. Significant gaps in the sampling frame. Business lounge users, Queenstown airport departees, and anyone not available in the departure lounge with more than 20 minutes to spare could not be sampled
3. Excessive collection costs and high respondent burden. The average interview time was more than 40 minutes.

The revised IVS incorporated a number of changes to improve the quality of international visitor spending data. The major changes to the IVS were:

Survey data was collected online, compared to previous face-to-face respondent interviews

IVS airport field agents collect visitor email addresses and a minimal amount of respondent screening information. All departees in scope of the survey's target population could then be contacted for survey, including business lounge and Queenstown airport travellers. The change in collection approach also allowed for an increase in the total sample size.

Significant questionnaire redesign

Significant improvements were made to the expenditure, reason for travel, accommodation, transport and activities questionnaire components.

Increased sample size

The sample size increased from 5,200 to 8,900 per year, which in turn provides spending estimates with a much smaller relative margin of error.

Impacts of the redeveloped IVS

An important part of introducing the redeveloped IVS was conducting a six-month *dual run*, which allowed MBIE to compare estimates from both surveys and understand the impact of the changes. Extensive testing in the lead up to this showed that the new questionnaire worked well.

As expected, the new IVS produced higher spend estimates when compared to the old design. The change in collection mode meant that returning travellers could use credit card statements and other information to estimate the cost of their trip, rather than relying on their recall at the airport. Research suggests that expenditure is often under-reported in face-to-face surveys, particularly as people often forget smaller items. The ability to survey more business travellers and those departing from Queenstown airport, also meant that higher spending tourists were more likely to be included in the estimates.

Using information collected from the dual run, historical results of the IVS could be backcast and revised, so as not to introduce a significant break in the time series. Overall, the results showed the value of international tourism was much higher than previously thought, and this was then reflected in New Zealand's macroeconomic accounts.

Changes since the introduction of the new IVS

The IVS has been largely been operating in the same manner and to the same design specifications since September 2013. However, one methodological change was made to the identification and treatment of outliers in 2014, after concerns were raised about high spend individuals driving up the average spend estimates. This methodology continues to be applied and still appears to be sufficient.

As part of a wider review of MBIE's tourism statistics by Stats NZ in 2015, the management of the IVS was assessed against the Principles and Protocols of Tier One Statistics. The key recommendation from this review (with regards to the IVS) was not to make any specific changes to the survey, but to, "...better communicate the validity and evidence of the quality of the data. MBIE should also consider adding a context for the data and analysis. This would provide customers greater confidence in the quality assurance process and understanding of the information."

Industry concerns

Over the last couple of years the Tourism Industry, their advocacy bodies and other users have raised concerns over the international spending estimates produced by the IVS, particularly the large growth between late 2014-early 2016 that flattened out in the following year. The Industry has found these spending movements difficult to reconcile with their own observations, and also felt the 2015 review of MBIE's tourism statistics did not adequately address these concerns. This culminated in a letter from Industry Leaders to the Chief Executives of Treasury, MBIE and Stats NZ. The letter requested a review of the IVS, examining the areas of: a quality review of the IVS methodology, examination of other countries' approaches, recommendations on an optimal methodology, and recommendations on the optimal agency to administer the IVS.

Purpose

The purpose of the review is to ensure that the IVS provides an accurate estimate of tourism expenditure and to recommend any improvements that might be required to ensure it meets the needs of the customers that it is designed for.

Scope

The review will examine each stage of the Generic Statistical Business Process Model (<https://statswiki.unece.org/display/GSBPM/Generic+Statistical+Business+Process+Model>) and identify opportunities for improvement.

In doing this it is expected that the following will be covered:

- 1) Confirm the design criteria and key customers ensuring that the design criteria are understood by everyone involved.
- 2) Examine how other countries estimate their International Visitor Expenditure and the confidence levels achieved.
- 3) Review the effectiveness of the processes within collection, mode of collection, processing and analysis systems, and the quality of the IVS data and the resultant statistics, to ensure their fitness-for-purpose. This will include clarification of roles & responsibilities, and expectations with respect to the IVS.
- 4) Identifying appropriate data to be used in the compilation and confrontation of a number of the uses to which the IVS output is put.
- 5) Clarify how IVS data relates to other indicators of international visitor spend and other relevant indicators.
- 6) Analysis to understand why the key quality metric of the survey – the relative margin of error for expenditure estimates – has not been met consistently. Identify the causes of this and what changes could be made to improve this.
- 7) Describe the organisation, statistical infrastructure¹, systems and processes and other elements employed by MBIE and Kantar TNS to obtain and process the data used to produce IVS statistics and to assure their quality.
- 8) Based on findings from applying an internationally validated assessment approach (ASPIRE²), review MBIE's current statistical infrastructure as well as continuous improvement initiatives underway.

¹ Statistical infrastructure' refers to the classifications, standards, rules and protocols governing the recording and processing of the data to assure and prepare it for subsequent statistical production.

² ASPIRE (A System for Product Improvement, Review and Evaluation) is an evaluation process originally developed by Statistics Sweden that allows data producers to assess the accuracy of their statistical output. Up to eight sources of error (including non-response error and sampling error) are assessed in terms of the team's knowledge of risks, communication with users, available expertise, compliance with best practice, and evidence of mitigation and improvement plans.

Stats NZ has recently adopted ASPIRE as a tool that teams can use to assess the quality of their products and look for improvement opportunities. MBIE will be trialling the use of ASPIRE with the IVS, with Stats NZ facilitating the training and 'scoring' workshops. The key findings and actions, if applicable, may be used as input for this Review

- 9) Recommend where there might be need for further investment or remedial action, in order (in particular) to provide additional trust and confidence. If possible, any recommendations will be assessed against a cost-benefit analysis (e.g. some improvements to the survey design may not necessarily be value for money).
- 10) Recommend whether revisions need to be made to any historical IVS data, as a result of improvements / changes made.
- 11) Recommend a potential forward program of investigations, analysis or training that will continue to target a continuous improvement approach to the key variable of tourism expenditure and its fitness-for-purpose.

Scope exclusions

- Explicitly reviewing the quality of measures other than visitor expenditure, such as accommodation, transport, activities, and visitor experience. However, we would reasonably expect any quality improvements to the overall survey design would flow on to these measures as well.

Governance

Inter-agency governance will be overseen by Dean Rutherford, GM Products, Services & Insights (Stats NZ) and Eileen Basher, Acting GM Research, Evaluation and Analytics (MBIE).

Membership

The review will be conducted by a small team from Stats NZ, comprising:

- Team Leader – TBC
- Statistical Methodologist – TBC

The key MBIE contact for the Stats NZ team to liaise with in order to conduct the review will be Mark Gordon (Manager, Sector Trends).

The key external stakeholders, including customers and suppliers, for the Stats NZ team to liaise with include:

- Kantar TNS
- TIA (with RTONZ)
- Tourism New Zealand
- Department of Conservation
- Tourism Research Australia

The team will engage with MBIE & Kantar TNS Managers responsible for the management of IVS data and statistical production, and be given appropriate access to relevant documentation.

Compliance burden will be minimised at both ends. It is envisaged that the review should not take up more than 30 person-days of MBIE time.

Responsibilities

Methodology of the Review.

The Stats NZ team will:

1. Review relevant documentation and interview key personnel where information is not documented relating to the MBIE organisation, systems and infrastructure; and similar reviews conducted in New Zealand and internationally.
2. Undertake a Stakeholder analysis to identify information needs – to be conducted through interviews.
3. Assess this information against the requirements of the NZ *Principles and Protocols for Official Tier 1 Statistics* and other international best practice frameworks.
4. Analyse and draw conclusions about the design and capability of the organisation of the IVS work, infrastructure and systems to sustainably deliver and assure data of sufficient quality.
5. Develop material that clarifies the use and importance of this data in NZ's macro-economic statistics. As part of this we will look to develop, in consultation with MBIE, some guidelines akin to a 'data supply agreement'.
6. Make recommendations about any investment or remedial actions that may be needed to remedy any major shortcomings.

Assuring Efficient Functioning of the Review.

The Stats NZ Team will:

1. Complete its internal analysis in a timely manner so that it can feed into this review to enable enhanced confrontation and understanding of key variables such as tourist expenditure.
2. Keep stakeholders informed about the structure and progress of the review.
3. Make reasonable requests of MBIE & Kantar TNS staff.

The MBIE & Kantar TNS managers will:

1. Provide all existing relevant documentation in relation to the collection, processing and analysis of the IVS data.
2. Where the requested documentation does not exist or is not adequate for the needs of the review, provide verbal description and explanation.

Deliverables

A final report will be the 'ultimate' deliverable, however the intermediate deliverables will include:

- ASPIRE Quality Assessment – December 2017.
- Completion of Stats NZ's Internal Analysis – March 2018.
- Draft Report – May 2018.
- Final Report – June 2018.

The ASPIRE Quality Assessment and Stats NZ's Internal Analysis will not be released as separate outputs, but summarised within the Draft and Final Reports. The Draft & Final Reports will be circulated amongst stakeholders.

On a monthly basis, the Inter-agency Governance group will issue a Monthly Progress Report.

Please note that the above timing will mean that any recommendations are unlikely to be implemented until the 2018 Balance of Payments (BoP) June Revisions cycle (published September 2018), that then flows into the Tourism Satellite Account & National Accounts. The ability to flow through any changes will depend on the outcome of the review and the scale of the implementation of the possible changes from the IVS review.

Similarly, it is unlikely that any material changes would be made in time for the release of MBIE's tourism forecasts, which are normally published in May.

MBIE and Stats NZ will jointly work on a communications strategy to support publication of report(s) arising from this review.
