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Title: Using electronic card transaction data to measure and monitor regional tourism in New Zealand.

The Ministry of Business, Innovation and Employment (MBIE) in New Zealand recently released two new regional tourism data collections that utilise electronic card transaction data. The Regional Tourism Indicators (RTIs) and Regional Tourism Estimates (RTEs) provide detailed, regionally specific insight into domestic and international tourist spending behaviours; the former in monthly reports of card spending and the latter in yearly estimates of absolute spend. These data collections have been welcomed with excitement by the industry and are expected to assist tourism stakeholders, particularly in the regions, in making better informed planning and investment decisions.

The Regional Tourism Indicators (RTIs) are produced using aggregated electronic card transaction data classified by period (year and month), cardholder origin (country or territorial authority), merchant location (territorial authority), and merchant industry (ANZSIC06). The data can be summarised and reported as transaction counts or spend indexes using any combination of these dimensions. Beyond their value for monitoring long term growth and change in tourism spending, the RTIs are also valued as a tool for assessing the impact of events, marketing, and other influencers on tourism spending. With less than one month delay between the close of the reference period and publication of the data, the RTIs provide timely updates to policy makers and industry alike.

The RTEs leverage the electronic card transaction data through a world-first combination of data sources and modern statistical techniques to produce estimates of absolute spend that can be disaggregated by year, territorial authority, industry and by visitors' country/region of origin. The methodology uses Iterative Proportional Fitting to adjust industry spend weights so that the total tourism spend by industry sourced from electronic card transactions data matches total tourism expenditure by industry from the Statistics New Zealand's Tourism Satellite Account. Similarly, the country of origin weights are adjusted to reflect the distribution of international expenditure by visitors' country of origin as in MBIE's International Visitor Survey. In this way, it is possible to control for different propensities to use cards in different industries and by different country of origin for the tourists. The methodology is underpinned by a few assumptions. The regional results have been tested against a number of other regional indicators and MBIE is confident that the RTEs are reliable estimates.