



ENHANCING FINANCIAL AND ECONOMIC YIELD IN TOURISM

SUMMARY REPORT OF THE YIELD RESEARCH PROGRAMME | NOVEMBER 2007

This summary report and the full suite of research reports from the Yield Research Programme are available from

www.tourismresearch.govt.nz

www.lincoln.ac.nz/trrec/tsmyield

The Financial Yield Calculator is available from www.tianz.org.nz

ACKNOWLEDGEMENTS

The Yield Research Programme was undertaken by Lincoln University in partnership with the Ministry of Tourism and the Tourism Industry Association (TIA), with support from Tourism New Zealand. Special thanks to the Tourism Industry Association's funding partners for this research: Air New Zealand, Budget Rent a Car, Jasons Travel Media, Regional Tourism Organisations New Zealand (RTONZ), SKYCITY Entertainment Group, Inbound Tour Operators Council (ITOC) and New Zealand Hotel Council (NZHC).

IMAGE CREDITS

Kayaks – Iain Guilliard, www.iainguilliard.com
Wellington Willis St corner in downtown Wellington – Positively Wellington Tourism, WellingtonNZ.com
Snowboarder – Cardrona Ski Field, www.cardrona.com
Southern Traverse – Michael Jacques, www.karapoti.co.nz
Wai-O-Tapu Champagne Pool – Destination Rotorua Tourism Marketing, www.rotoruaNZ.com
Lake Taupo Lodge – www.laketaupolodge.co.nz

CONTENTS

Executive Summary	1
Introduction	3
Private Sector Yield	6
Operators' Motivations and Behaviours	12
Public Sector Yield	15
Central Government and Yield	15
Local Government and Yield	17
Yield from a Social and Environmental Perspective	21
Yield Generated by Different Tourist Types	24
Conclusions	28
Glossary	31
Reports of the Yield Research Programme	32

EXECUTIVE SUMMARY

The 'Yield Research Programme' involved new ways of analysing the tourism sector with the objective of establishing a holistic view of tourism's contribution to New Zealand's economy and society, and providing ideas on how we can increase the sector's performance.

The research is focussed on a wide range of measures, including financial yields for firms, yield across government agencies, societal and environmental costs and benefits, and other non-financial costs and benefits. Insights are gained into each of these areas, enabling a wider view on how these elements inter-relate.

At the highest level, the research found that tourism is a positive contributor to New Zealand although significant gains can be made in a number of areas to secure higher yields. Key findings are:

- **Tourism sectors generally have positive financial yields.** However, many sectors of tourism have yields which are low compared to the opportunity cost of capital, and to some of the better performing sectors elsewhere in the economy. There is a high variance in financial yield within each sector, suggesting there are no inherent structural reasons for the variations in performance levels. There is evidence of considerable management informality (e.g. in pricing, financial management, human resources and planning areas). 'Lifestyle' businesses do not have lower financial yields than businesses with a stronger commercial focus, refuting the common misconception that these firms under-perform.
- **Tourism is a net financial contributor to central government.** This is primarily due to GST revenue that central government receives from international tourism. While government makes a number of tourism-related expenditures (e.g. facilitating access to conservation lands, marketing, research and policy, etc), revenues exceeded this expenditure by \$429 million in 2003-04.
- **Tourism is largely cost neutral for local government.** The outcomes for the four case study regions examined varied according to their particular characteristics. In 2005, the outcomes ranged from a net cost of \$1.6 million in one region to a net benefit of \$6 million in another. In addition to these direct financial outcomes, the research identified considerable flow-on economic benefits to the wider regional communities.
- **Mix of social and environmental benefits and costs.** Evidence exists that tourism generates a range of benefits and costs for communities, but communities continue to offer strong overall support for tourism. Similarly, there are a range of environmental benefits and costs arising from tourism. While the latter are difficult to measure, the research was able to estimate financial values for some transport externalities (-\$223 million), with these needing to be considered alongside the overall central government surplus and community support.
- **No single ideal traveller type.** The research found that there is not a single ideal traveller type - each has merits against a variety of indicators (e.g. residual income, public sector costs, carbon emissions and regional dispersion). This highlights the importance of attracting a mix of travellers to enable New Zealand to meet its social, cultural, environmental and economic goals.

When taken together, these findings contribute to our understandings about the sustainability of the tourism sector, and highlight where improvements need to be achieved.

For instance, a major finding is that tourism business performance needs to improve if investment is to continue to flow over the long term. With business performance levels being determined by the nature of the management of those firms, there are clear indications that future initiatives should be focussed squarely at improving the management capability of tourism businesses.

The research also offers many new insights into the relationships between tourism, government, communities and the environment. In each of these areas, there is scope for new approaches for dealing with particular issues, such as how local government could consider its tourism investments in relation to the direct and indirect benefits that arise from the industry.

This paper provides a summary of the key findings from the Yield Research Programme, with the full set of research reports available on the Ministry of Tourism and Lincoln University websites: www.tourismresearch.govt.nz and www.lincoln.ac.nz.

1 INTRODUCTION

In recent years, 'yield' has become a central issue in tourism development with many operators and policy analysts now seeking 'high yield' tourism. Attempts to maximise yield have sometimes focussed on maximising volume (i.e. visitor numbers or revenue). But over time an increasing number of sector participants have come to appreciate that maximising volume is not necessarily maximising value – and nor does it necessarily lead to sustainable businesses. For that reason, discussions about yield are now encompassing the concepts of value-added, net benefit and measures of sustainability.

This paper provides a high level summary of the key findings of the Yield Research Programme, with the full suite of research findings being available on the Ministry of Tourism and Lincoln University websites: www.tourismresearch.govt.nz and www.lincoln.ac.nz.

Yield Research Programme

The first New Zealand Tourism Strategy (NZTS 2010) highlighted the need to examine drivers of financial and economic sustainability in the tourism sector. To address these recommendations the Yield Research Programme was developed. This research was undertaken by Lincoln University in partnership with the Ministry of Tourism, the Tourism Industry Association and with support from Tourism New Zealand.

The original objectives of this research programme were to provide:

- A definition of Financial Yield for tourism businesses, and information about current commercial performance across the various sectors of tourism.
- A definition of Economic Yield and Sustainable Yield, and research in case study areas examining these types of yields (from the private sector, public sector and the visitor).
- Sustainable Yield indicators, tools and strategies to increase tourism yield, drawing together all knowledge gained during the research to enhance practice across the tourism sector.

Looking at Yield from Different Perspectives

Yield is an elusive term that can be legitimately used in quite different ways that have differing meanings according to the situation.

Traditionally, yield has been a commercial term. But yield can also be of interest to central and local governments because they spend money on tourism (in one way or another) and, while they generally do not have commercial interests, they are always interested in what outcomes stem from their investments.

This research programme used several definitions of yield. This was to reflect the different ways people may think about yield in different contexts in the private and public sectors. Each section of this summary report explains the definition(s) of yield used in each piece of analysis and why each definition was used.

Structure of the Yield Research Programme

There were three streams of analysis in the Yield Research Programme: Private Sector analysis, Public Sector analysis and Tourist Types analysis.

A number of frameworks were developed to measure yield from the different perspectives flowing from the three streams above, including financial perspectives of

the private sector, financial perspectives of central and local government, and non-financial perspectives of the community at large. These results were combined with information on spending by types of tourists in case study regions, to estimate the overall yield from each tourist type and the overall yield per year for those regions. Primary research was also conducted by surveying tourism operators to uncover attitudes and behaviours in tourism businesses.

The main research areas covered were:

- **Yield in the Private Sector**

Businesses must be profitable to be sustainable. In the long run they must generate sufficient returns on capital for investors to continue investing. In this research programme Financial Yield (i.e. the rate of return on assets) was used as the measure of yield in the private sector. Financial Yields were calculated for each sector of tourism (accommodation, transport, restaurants etc), and both average yields and the variation of yields within sub-sectors were investigated.

- **Operators' Motivations and Behaviours**

A survey of 770 tourism small and medium enterprises (SMEs) was undertaken, and in-depth interviews were conducted with 65 tourism businesses of varying sizes. The research examined the motivations that drive tourism business owners and managers, the structure of tourism firms, and whether certain business management behaviours and strategies might lead to higher yielding businesses.

- **Yield in the Public Sector**

The Public Sector receives income from the private sector and provides the platform from which the private sector operates. Whether marketing New Zealand as a visitor destination, maintaining the roading network, providing visitor facilities or ensuring clean water is available in host communities, the public sector plays a broad and significant role in tourism. In this research an analytical framework was developed which could assist central and local governments in making decisions when spending public funds to support tourism.

- **Central Government and Yield**

The financial costs and benefits accruing to central government were investigated. The impacts of tourism on tax and government spending were estimated on the assumption that resources currently used in tourism would otherwise be used in other economic sectors. Hence only taxes and spending that were specific to tourism were included in the analysis, while taxes (e.g. PAYE) and government spending (e.g. on regulations) that are common to all economic sectors were excluded.

- **Local Government and Yield**

The financial costs and benefits of tourism from the perspective of four local governments were also examined. The regions were chosen to include both large and small centres that were reasonably tourism intensive. This analysis assumed that in the absence of tourism all associated local government costs and revenues would otherwise cease. The results from two of the case studies were then placed in the context of the wider regional economic activity which tourism generated.

- **Yield from a Social and Environmental Perspective**

In the case of the community as a whole, yield encompasses not only the jobs provided by tourism firms but also the broader social and environmental impacts of tourism. Information from previous research was used to provide an overview of the net impacts of tourism on New Zealand's social and physical environment. Tourism involves a lot of travel, and travel generates significant non-market environmental and social costs including accidents, congestion and greenhouse gas emissions. Various data sources were used to estimate the financial costs of these externalities associated with travel.

- **Yield Generated by Different Tourist Types**

The yields generated by particular types of tourists were also considered. Travellers were surveyed to find out what public facilities they used, what travel they undertook, how much money they spent and what they spent it on. This information was combined with the public and private sector yield data to see whether some visitor types are higher yielding than others. In this work several forms of yield were examined, and visitor types were ranked according to their level of yield from each perspective.

How Yields can be Increased

Having conducted primary research, established a range of yield measures and drawn conclusions about the overall yield characteristics in tourism, the research then examined what factors contribute to both private sector and government success in tourism. The programme also considered how this information could be utilised to increase the overall yield performance of tourism.

For firms, two key outcomes were produced:

- **Financial Yield Calculator**

The data collected on tourism firms allowed a Financial Yield Calculator to be developed. This enables tourism businesses to calculate and benchmark their own Financial Yields against those of other businesses in their particular sub-sector of tourism (refer the inner back page for more detail on this tool). This calculator is available on the the Tourism Industry Association website: www.tianz.org.nz.

- **Review of Tourism SME Support Resources**

A review of existing tools and programmes to assist businesses to increase their yield was undertaken in order to assess the current availability of resources, how they are being used and how they could be better configured. This work is being linked to the Ministry of Tourism's policy processes looking to support SMEs in tourism.

For government, a key research outcome has been the establishment of a framework for understanding the nature, and measuring the size, of net returns to the public sector (including the non-financial perspectives of the community) for both central and local government. By developing a reliable means of determining the cost and benefits of tourism and the flow-on effects that occur, the research has better placed government to assist the tourism sector to contribute to wider community objectives.

For more information about these definitions and programme structure refer to:

- *Report 2: Dimensions and Measurement of Yield*

2 PRIVATE SECTOR YIELD

Tourism is made up of a large number of small and medium enterprises (SMEs) which collectively form a significant part of the private sector.

This research was designed to generate reliable benchmarks of the financial performance of tourism businesses, and the various sectors. The first part of the research was to determine the best measure to use to assess performance, while the second was to conduct the analysis and interpret the results.

Measuring Private Sector Yield

Simple volumetric measures of activity that are often used in tourism (e.g. visitor numbers and turnover) convey very little about the efficiency of the business or whether it is financially sustainable in the long term.

Financial Yield is a measure that can provide such insights through assessing the financial returns of the business in relation to the capital employed by that business. This is an investor-focussed measure to enable businesses of any size to compare their returns with others in their sector, or with the returns they might be able to get elsewhere in the economy.

This Financial Yield analysis is based on the idea that a business must make sufficient returns on the capital it employs to continue investing in the business and to maintain or increase capacity. It provides insights into the efficiency and sustainability of a firm by examining the degree to which its assets generate cash returns to its owners.

Financial Yield is defined as the ratio of:

$$\frac{\text{Net Operating Profit After Tax and Before Interest}}{\text{Total Assets}}$$

Thus, this measure provides businesses with a clear indication of how effectively they are employing the capital that is invested in that business. That said, the method also has its limitations. For instance, it does not consider how effectively labour is employed in the business and it may be possible for a firm to have a high Financial Yield based on the effective use of its capital, yet have low labour productivity.

A key aspect of the Financial Yield measure is that it allows comparison of a firm's return on investment compared to other uses of the capital. Two simple economy-wide benchmarks which an investor could use to gauge the adequacy of their return on capital are: the Base Lending Rate¹ as published by the Reserve Bank (which averaged 6.5% after tax from 1999-2003); and the average Financial Yield for all New Zealand businesses² (estimated at 5.7% over the same period).

¹ A minimum interest rate calculated by financial institutions based on a formula which takes into account the institutions' cost of funds and other administrative costs. This indicator has been used because it is somewhat below the likely cost of borrowing for most businesses, and somewhat above the risk-free rate of return to equity. It can be regarded as the minimum return a business would need to return for investors to continue investing in the business, all other things being equal.

² Those for which data existed in the Statistics New Zealand datasets. The calculation was for 1999 – 2003.

Interpreting the Results

If a firm's Financial Yield is greater than the returns to capital in other sectors, then the business is deemed financially sustainable. In such a case, new investments are likely to be made to enable replacement of worn out capital because these investments will generate higher returns than investments elsewhere. If these higher returns are generated across a sector, then this sector will probably expand as new investors pursue the high yields.

On the other hand, if Financial Yield is less than the returns to capital elsewhere, the business will trade itself into difficulty because funds will not be available to replace worn out capital. In more extreme cases where a firm's profits are not sufficient to cover interest costs, the business will cease trading. Similarly, sectors with low yields will contract because new investors are not willing to enter the sector.

Methods

The research was based on an examination of the financial records for thousands of tourism businesses using taxation information and Annual Enterprise Survey data that was made available through Statistics New Zealand's *Datalab* facility. The period covered by the analysis is 1999-2003, which was the most recently available data at the time of analysis.

The data was sorted into sectors and then analysed in two ways. Firstly, each sector was treated as one large business and a Financial Yield was calculated for this 'business'. Secondly, the Financial Yield was calculated for each of the individual firms within the sector. The former approach allows total sector analysis, while the latter allows benchmarking for individual firms within the sectors. Both of these approaches are discussed below.

Sector-based Results

Table 1 (over page) shows the average Financial Yield results for different tourism-related sectors.

Table 1: Private Sector Yields (average for period 1999-2003)

	Sector Yields %
<i>Average for all NZ businesses</i>	5.7
Transport	
Long distance bus and rail	3.1
Short distance bus (incl. tram)	9.8
Taxis	7.6
Travel agencies ³	14.0
Scheduled air transport	-10.1
Non-scheduled air transport	6.4
Hire vehicles	8.8
Accommodation	
Hotel	4.0
Motel/motor inn	5.3
Hosted accommodation	2.7
Backpacker/youth hostel	6.7
Campervan parks/camping grounds	3.7
Lodges/boutique accommodation	3.6
Bars, Cafes, Restaurants	
Pubs, taverns, bars	11.7
Cafés and restaurants	10.0
Cultural and Recreational Services	
Museums	-0.5
Zoos, parks, gardens	1.3
Racing, gaming, lotteries and other rec.	15.9
Retail	14.3

Note: Results are an average for the five year period and can generally be regarded as showing 'typical' results for the sectors over the long term. An exception is the 'Scheduled Air Transport' sector that suffered from abnormal events over the period (refer below). The overall conclusion from the analysis is that there is a fair degree of variation between the different sectors, with some sectors performing above the economy-wide benchmarks discussed earlier, while others are below.

In assessing these results, it is necessary to consider the characteristics of each sector and some of the important contextual information that may have influenced the results:

- **Transport**

The Financial Yield of the different transport types varied considerably.

Scheduled air transport showed a Financial Yield of -10.1%. This result was strongly affected by the performance of the largest operator in this sector (Air New Zealand) that experienced significant financial difficulties over the study period. The subsequent recovery of this airline suggests that had the analysis been undertaken using more recent data, the yield result would have been higher and perhaps more reflective of the underlying characteristics of the sector.

Other elements of the transport sector had yields above the economy-wide benchmarks. Travel agencies had a Financial Yield of 14.0% that reflects high profits

³ Travel Agencies are grouped within the Transport Sector because of the 'Australian and New Zealand Standard Industrial Classification' convention, reflecting many travel agents with ownership links to transport companies.

relative to their asset base. Short Distance Bus (including Trams) had a Financial Yield of 9.8% which is consistent with a recent review of bus transport services in Auckland, Wellington and Christchurch that showed earnings over revenue were relatively high for the bus companies in these cities⁴. Long Distance Bus and Rail generated a below average Financial Yield of 3.1% for the period⁵, while the Hire Vehicle sector had an above average yield of 8.8%.

Taxis had a Financial Yield of 7.6%. While this is a moderately strong yield performance, it is useful also to consider the level of labour productivity in this sector, given the labour intensive nature of this work.

- **Accommodation**

This sector had reasonably low Financial Yield across the various accommodation types. There are likely to be a number of reasons for this in addition to the actual 'quality' of the performance of the individual firms. For instance, much of the capital involved in accommodation is in real estate which has a low inherent risk profile. Also, investors might be looking beyond the purely operational aspects of the business to the capital gains from rising property values. A third reason is that increases in property values are not being accompanied by equal increases in profitability which lowers the Financial Yield performance, at least in the short term.

While the low Financial Yield could be expected to have restricted investment in the sector, in fact there has been increased capacity in tourism accommodation, with hotel and motel rooms increasing by 36% each, hosted accommodation by 82% and backpacker capacity by 149% in the decade to April 2005⁶. The low yields must be acceptable to these investors and from this perspective the yield seems to be sustainable, at least in the current economic environment.

- **Bars, Cafes and Restaurants**

The sector on the whole had relatively high Financial Yield that is reflective of the low asset base of this sector compared to revenues. It is also a risky sector, as evidenced by the frequent entry and exits from the sector. This risk is attractive to some investors because while the chance of failure might be higher than other investments, the rewards are also higher for successful operators.

- **Cultural and Recreational Services**

This is a broad sector which includes some elements that are not particularly relevant as measures of tourism industry performance. For instance, low Financial Yield in museums, zoos and gardens stems from their not-for-profit focus and their high capital to sales characteristics.

The area of most interest in this group was Recreation Businesses (such as guided activities, bungy jumping, skiing), but for confidentiality reasons, their Financial Yields could not be separated from the wider Racing, Gaming, Lotteries and Other Recreation⁷.

⁴ Auckland Sustainable Cities Programme 2006, *Public Transport Procurement Legislation Review Consultation Document*, Ministry of Transport, www.transport.govt.nz

⁵ Analysis of the yield for long distance bus companies alone in subsequent years suggested that they have a yield in excess of 20%.

⁶ The period for which yield was estimated is in the middle of this decade.

⁷ However, analysis of the individual firms' data showed that the average of the Financial Yields for all recreation businesses over the period 1999 – 2003 was only 3.8 %. See Report 4 *Performance Benchmarks for New Zealand Tourism Characteristic Enterprises Based on Financial Yield*.

- **Retail**

The Financial Yield for the Retail sector of the economy was 14.3%. While only 11% of retail sales are to tourists and therefore the performance of this sector is marginally affected by tourism, almost 30% of tourist spending is in the retail sector and so the overall performance of retail is of direct relevance to tourism.

Firm-based Results

Analysis of individual firms within the sectors highlighted a number of notable characteristics. It is worth noting that individual firms' yields are aggregated according to their relevant sub-sector, e.g. hotels;

- **Yield Variations within Sectors**

Individual firms within a sub-sector exhibited a wide variety of Financial Yields. For example, 20% of hotels had a Financial Yield of -2.1% or lower, whereas 20% had a Financial Yield of +13.1% or more. Other sub-sectors displayed similar variations, while all had a significant number of businesses with high yields.

This suggests that no tourism sector suffers from structural problems which would make achievement of sustainable yields impossible. Rather, there are many businesses which could significantly improve their performance if they were to adopt the strategies and techniques evident in the successful businesses.

- **Relationship between Financial Yield and Turnover**

Analysis of the Financial Yield of firms and the size of their turnover showed that yield did not continually increase with the size of the business. In almost every sub-sector, the highest Financial Yield did not come from firms with the largest turnover, but came from those in the middle-to-upper turnover bands.

This suggests that growth in the size of turnover is not a universal remedy for poor yield, and that it may be better to address the many causes of poor yield rather than to assume that simple volume growth will solve the problems.

This analysis of individual firms has been utilised to establish a *Financial Yield Calculator* to enable operators to enter their own data and compare their results to the benchmarks for their particular sector. This tool will, for the first time, enable operators to assess where they are placed in relation to their peers. They will be steered to business development resources to assist them improve their performance. The calculator is located on the website of the Tourism Industry Association: www.tianz.org.nz (refer to inner back page of this report).

Summary

Tourism is the first industry to analyse its financial performance in this way. As with all seminal research the methods used in this project will be scrutinised and refined for future studies. But if New Zealand's tourism industry is to be prosperous and attract ongoing investment, it is important that businesses better understand the current returns on the capital invested in the industry and the opportunity costs of those investments. This will allow them to take whatever steps are necessary to ensure that the returns on capital are sufficient to encourage continued investment to sustain the industry in the long term.

This research will raise awareness of different ways in which performance in the tourism industry should be measured. It has encouraged investors and business managers to shift their focus from simply the number of visitors and total revenue towards a more complex measure of the net returns to their businesses.

These results reveal findings from an investor's perspective, which complement the many demand-side studies about tourism in this country.

The results show not only what the current Financial Yield is in each of the tourism sectors, but also shows how these returns vary within a sub-sector. This enables business owners to benchmark themselves against the rest of the industry, and also encourages them to view their business from a different perspective, that of financial sustainability.

While the financial results suggest some tourism businesses are verging on being unsustainable, the continued expansion of capacity indicates that tourism investors believe that returns on new investment will be sufficient. Provided the value of new investment in the industry exceeds the value of retired assets, there is an implication that the sector is sustainable.

For more information about these findings refer to:

- *Report 3: Sector Performance and Business Benchmarks*
- *Report 4: Performance Benchmarks for New Zealand Tourism Characteristic Enterprises based on Financial Yield*
- *Report 5: Performance Benchmarks for New Zealand Accommodation Enterprises based on Financial Yield*
- *Report 6: Division Benchmarks for New Zealand Tourism Characteristic and Related Industries*
 - A 1999-2003*
 - B 2000-2004*
 - C 2001-2005*

3 OPERATORS' MOTIVATIONS AND BEHAVIOURS

This research was designed to develop a better understanding of the operational aspects of tourism businesses, to assess the factors that led to the financial performance results that were determined in the preceding section.

The tourism industry is made up of many thousands of mostly small firms operating in the number of sectors that make up the overall tourism industry. The overall performance of the industry is a result of how these firms perform and contribute individually. As such, it is important to not only understand 'how' they perform, but 'why' they perform in the way they do.

Methods

This research was based upon direct contacts with tourism businesses through two main approaches:

1. Postal survey of 770 small and medium sized tourism businesses
2. Face-to-face interviews with the owners or operators of 65 tourism businesses.

The information sought was wide-ranging, including financial data and management practice information. The intention was to identify those practices that led to the success of the businesses involved, and whether there were common patterns of behaviour among high or low performers.

Results

While the intention was to establish clear correlations between business financial performance and certain motivational or behavioural characteristics, analysis of the data did not reveal such correlations. However, the research did provide a number of insights into the operation of the tourism businesses:

- **Lifestyle and Financial Yield**

Most business operators were motivated by a combination of both personal and business factors, with the line between the two often not being easily discernible. Prior to this research, lifestyle goals were seen as compromising more conventional business goals. However, this research found that while working in a business that one enjoys is associated with a higher level of commitment and greater rewards in terms of personal satisfaction, there is no difference in terms of Financial Yield compared to purely business-oriented firms.

This result should help dispel the myth that 'lifestyle' businesses are financially unsuccessful, and is a very important finding for tourism, given its reliance on committed and high quality small and medium sized businesses.

- **Financial Management**

The extent and quality of financial management by the respondents was overall of a low order. Where businesses undertook financial monitoring, simple measures like profit, income and costs were most commonly used, with relatively few firms using more sophisticated ratios.

The business interviews also revealed that many operators do not effectively incorporate information about their costs into their pricing decisions. Rather, there was a tendency to price to the levels of their competitors. The research showed that

firms who did not incorporate their costs into their pricing decisions tended to have a lower Financial Yield than those who did.

- **Customer Consciousness**

Tourism businesses were very customer focussed and 'customer satisfaction' was the most common way in which operators assessed their business success. Surprisingly, customer satisfaction was more widely used than profit as an indicator of business success. The majority of tourism businesses had procedures in place for dealing with customer complaints and measuring customer satisfaction.

This result highlights the fact that firms are very aware of their customers, which is a strongly positive finding for the sector. When considered in combination with the financial management section above, however, there is an indication that adopting a more balanced mix of performance measures, including a stronger focus on financial performance, would serve businesses better.

- **Marketing Focus**

Marketing was a central focus for most of the businesses, although operators seemed to use 'marketing' as an umbrella term for promotion and communications. The results showed a high interest in marketing but less awareness of what marketing actually entails beyond promotion.

There appeared to be interest from operators in receiving advice on how best to spend their scarce marketing budgets, and in particular on how to attract international visitors to their business. Websites were seen by tourism firms as a key component of this.

- **Employment Practices**

'Human resources', as a key aspect of business operations, received a low level of attention, despite the shortage of skilled people in the industry.

The research found that employee practices were generally informal, with operators developing their own systems that 'work for them'. Most operators focussed on recruitment practices with less attention being given to skill needs analysis, induction and remuneration. These findings are consistent with other research on small to medium businesses and reflect the underlying informality of the operations of many tourism firms.

- **Environmental Focus**

Environmental impacts received a high level of attention in the research, with nearly three quarters of survey respondents indicating that they had introduced measures to reduce the impact of their business on the environment.

While the research did not establish the scale of these measures, the findings indicate a high level of awareness of, and willingness to act upon, environmental issues facing the sector. On the other hand, very few of the firms had actually taken the next step to obtain formal environmental accreditation.

Summary

Without understanding the motivations that drive tourism business owners and operators, it is difficult to understand their business behaviours and the success (or otherwise) of the financial performance of their firms.

The survey has established a better understanding of the nature of tourism SMEs in New Zealand. In some areas it has established findings where assumptions or anecdotal evidence had previously been the main source of information. For instance, it has refuted the notion that 'lifestyle' firms are less successful than more business-oriented firms. It has established that financial management is generally weak, as are human resources practices. On the other hand, there is a strong focus on the customer and an awareness of the value of good environmental practices.

Research that confirms existing ideas may not in itself be ground breaking, but it is important for building a strong body of industry knowledge and this research is largely of this type. It will also provide a base that will be significant for comparing future findings from similar investigations.

In the more immediate term, the research provides clear indications of some of the critical strengths and weaknesses of New Zealand's tourism SMEs. This information has directly informed work to develop the capability of tourism SMEs - for instance, the *Financial Yield Calculator* and establishing the best forms of assistance for SME operators.

For more information about these findings refer to:

- *Report 7: Small Tourism Business Survey*
- *Report 8A: Business Interviews*
- *Report 8B: Business Interviews : Financial Yield Benchmarking*
- *Report 9: Business Support Programme for Small and Medium Enterprises: Existing Initiatives and Delivery Mechanisms*

4 PUBLIC SECTOR YIELD

Government is involved in tourism in many ways and at many levels. For example, central and local government decides whether to support the services used by tourists or tourism businesses, and virtually all government departments have some involvement with tourism in some form or other.

This research was designed to quantify the engagement of the tourism/public sector interface and to describe the relationships where quantification is not possible. The analysis examined how tourism contributes to central government at the national level and it also examined four regional case study areas to assess the relationship between tourism and regional government.

When examined alongside the Financial Yield from the tourism private sector and with information about the impacts of tourism on communities and the physical environment, conclusions can be drawn about the overall returns from tourism at national and local levels.

Measuring Public Sector Yield

The private sector approach of examining the Financial Yield of firms cannot be applied to government agencies – they simply do not operate in this commercial manner. Instead, the research is based upon ‘Net Financial Benefit’ of government agencies – essentially what tourism costs, and what are the direct financial benefits to that agency. This can also be termed ‘Public Sector Yield’.

This approach means that there are fundamental differences in the way the public and private sectors are measured but, so long as this is recognised, the research does enable the role of tourism in the economy to be recognised.

Central Government and Yield

The first part of the research developed a framework to estimate the Net Financial Benefit that central government receives from tourism in New Zealand.

Methods

Taxes generated from tourism activities were separated from those taxes which would have been generated if the resources used in tourism were used elsewhere in the economy⁸. It was assumed that in the absence of tourism, the capital and labour resources currently used in tourism⁹ would be used in other sectors with roughly similar levels of tax, except that alternative export or import substitutes would not generate the GST that international tourism generates. Hence, the net tax income to central government is equivalent to GST and excise taxes collected from international tourism.

Central government costs of tourism relate to the supply of infrastructure, biosecurity, Customs and Immigration services, Department of Conservation (DOC) services for visitors, specific policy and research, and promotion of tourism by various bodies. Any

⁸ To this degree we have adopted a quasi general equilibrium approach to calculating public sector yield. While not included in our assessment of net revenues we note that tourism also generates \$1,430 million of taxes (e.g. company tax, PAYE, etc.) as well as \$788 million of GST on domestic tourism. As noted above, these have not been included in this assessment on the assumption that deployment of these resources in other sectors would generate similar costs and revenue.

⁹ This assumption applied to capital and labour resources only. Other significant resources which are currently used for tourism i.e. natural assets, would not be able to be used for other economic activities.

contributions made by tourism operators or tourists (such as user charges) were deducted to identify the net costs of tourism to central government.

To identify further the scale of costs associated with the above activities, they were considered on the basis that public services are often provided for a number of reasons and a number of users (including but not exclusively for tourists). There are no clear guidelines on how to allocate shared costs given that this research was new and experimental. Judgements were therefore required to appropriately allocate costs and attribute the benefits from tourism and it is acknowledged that many of these judgements could be debated. Central government's provision of roading, DOC visitor facilities and *Te Papa* are examples where a proportion of costs had to be apportioned to tourism. In most cases, tourism's share of the total cost was based on its share of use of the services or facilities (an 'average cost' approach), although 'marginal costs' were used in some instances where this was appropriate and where data was available (e.g. road congestion costs).

Results

Table 2 below outlines the main costs and benefits to central government as a result of tourism activity. This analysis covers the period 2003-04.

Table 2: Central Government Financial Benefits and Costs (2003-04)

	\$/year
Revenue	
Tax - GST from international visitors	+481
Tax - Excise tax from international visitors	+35
Transport infrastructure (including roading and fuel taxes), Border Controls (including Customs and Immigration), ACC revenue	+97
Costs	
Tourism Marketing, Research and Policy, Major Regional Initiatives	-81
Culture, Recreation, Conservation and Heritage Access Costs	-103
Net Financial Benefit to Central Government	+429

This analysis shows that central government received \$613 million more in revenue than it would have had tourism not existed in the economy. On the other hand, it expended \$184 million in the various activities it supports relating to the tourism industry. This provides a Net Financial Benefit to central government from tourism of \$429 million.

In addition to this Net Financial Benefit from tourism, it is useful to consider the wider contribution of tourism to the economy, and how central government benefits from this activity. For instance, in the 2003/04 year tourism generated \$17.5 billion of direct expenditure. This in turn directly and indirectly generated \$12.5 billion of value-added, and supported 173,000 jobs¹⁰. All of this activity generated costs and benefits to central government, with the benefits including the full range of general taxes that apply in New Zealand (e.g. PAYE, company taxes, GST, excise taxes, fuel taxes etc).

While the analysis of net central government benefit in Table 2 assumed that the capital and labour employed directly and indirectly in tourism would, in the absence of tourism, be employed in other sectors with similar levels of profitability and tax, this is an optimistic assumption. Tourism has attracted those resources because it has been able to persuade investors and labour that their returns will be better in tourism than elsewhere,

¹⁰ Statistics New Zealand 2006, *Tourism Satellite Account 2005*, Statistics New Zealand.

and hence the net benefits to central government almost certainly significantly exceed the estimates in this analysis.

There are other social and physical environmental costs and benefits associated with tourism, on which it is not possible to put a financial value (e.g. tourist impacts on natural assets). Decision makers are encouraged to view this Net Financial Benefit to central government alongside these other costs and benefits when considering central government's support for tourism. More information about this is provided in the section on tourism yield from a social and physical environment perspective (refer Section 5).

Summary

For central government, tourism provides a clear financial benefit. While a number of the individual figures can be debated, the Net Financial Benefit figure provides a reasoned and robust estimate of the overall contribution of tourism to central government.

For more information about these findings refer to:

- *Report 10: Public Sector: Central Government*

Local Government and Yield

As with the central government analysis, this research developed a framework to estimate a net value for local government from tourism activity. This analysis was based upon the four case study areas of Rotorua, Christchurch, Hurunui and Mackenzie that were chosen to provide a range of perspectives from large and small centres that are all reasonably tourism-intensive. This research establishes another aspect of public sector yield, that is, how tourism operates at the local government level.

Methods

Local government tourism yields were measured as the Net Financial Benefit to local government associated with tourism. This approach is subtly different to that used in the central government analysis in that it ignores whether resources currently used in tourism would otherwise be used elsewhere in the economy. There is an implicit assumption that either the resources would migrate out of the regional economy, or that other uses of the resources would have a cost-neutral impact on local government.

Local government benefits flow from rates and user charges paid by tourism businesses and tourists, while costs flow from the provision of services to those businesses and directly to tourists via non-commercial services (including roads, buses, museums, etc).

Results

Table 3 below shows the costs and revenues for the four case study regions including how these relate to total council budgets.

Table 3: Financial Impacts for the Four Case Study Regions 2005 (million/year)

Region	Total Council Budgets	Tourism Costs	Tourism Benefits	Estimated Cost or Benefit per year from Tourism	Net Financial Benefit as % of Total Council Budget
Christchurch City	\$267	\$30.1	\$28.6	Cost: \$1.6	-0.6%
Mackenzie District	\$5.9	\$1.17	\$1.23	Cost: \$0.177	-3.0%
Hurunui District	\$12.2	\$5.9	\$6.7	Benefit: \$0.760	+6.2%
Rotorua District	\$52.9	\$11.3	\$17.3	Benefit: \$6.0	+11.3%

Note: These estimates cannot be considered robust over time. They are subject to assumptions and data limitations and present a single year snapshot only.

These results highlight that expenditure by local government to support local tourism activity was overall a relatively small proportion of each local authority's total expenditure. Some of the characteristics in each region that contributed to the particular results in Table 3 are set out below.

- **Christchurch City**

The visitor density¹¹ in Christchurch is comparatively low at 10%. Key factors that determined the yield outcome for Christchurch City Council included the treatment of the Christchurch Art Gallery finances (a significant proportion of costs were attributed to tourism) and the fact that most roads used by tourists were local roads funded by the Council, rather than State Highways funded through central government. Property taxes attributed to tourism accounted for the majority of tourism revenue (similar to the situation in Mackenzie and Rotorua).

- **Mackenzie District**

The tourist density for Mackenzie is high at 48%. This implies a very high dependence on tourism. The key characteristic of Mackenzie was that tourism impacts on infrastructure such as toilets, water and waste management were high, while revenue generation for these services was low, mainly as a result of visitors passing through rather than staying overnight.

- **Hurunui District**

Tourism is very important to Hurunui District, given its high visitor density of 22%. In contrast to the other case studies, Hurunui's main revenue stream comes from the council-owned Hanmer Springs Thermal Resort (around 35% of total council revenues for this district). Hurunui collects a 'targeted rate' from tourism businesses to finance tourism-specific activities.

¹¹ Visitor density - the ratio of visitors to residents in the location per typical day.

- **Rotorua District**

The tourist density in Rotorua is 15%. Rotorua was the only council to achieve a significant surplus from tourism. This is largely due to the fact that the major tourist transport corridor is a State Highway, which is funded by central government rather than the Council. Also, one of Rotorua’s key public sector attractions, the Rotorua Museum, charges entry fees to non-residents, which means that the net cost of running the museum to the Council is lower than in other places, such as Christchurch. Rotorua also managed to achieve abnormally high revenues from events held in 2005.

Regional Yield

For Christchurch and Rotorua, the analysis went beyond describing financial benefits and costs, by combining these results with other findings from this research programme to examine the total tourism-dependent economic activity in those areas. This was undertaken to generate a fuller picture of how tourism operates within local council jurisdictions.

The analysis combined data on public and private sector tourism activity in the case study regions with economic multipliers¹² to show regional value-added and employment that was directly or indirectly generated in the region by tourism. Also examined was the net private sector Residual Income¹³ that is directly generated by tourist spending (refer Table 4).

Table 4: Regional Financial Yields from Tourism in 2005: Christchurch and Rotorua

	Local Government Net Financial Benefit	Private Sector Residual Income arising directly from tourist spend	Total Tourism-dependent Economic Activity	
			Business and Household Income	Employment
Christchurch	-\$1.6 m / yr	\$19 m / yr	\$940 m / yr	16,800 FTEs
Rotorua	\$6.0 m / yr	\$10 m / yr	\$300 m / yr	6,300 FTEs

The results showed that the Net Financial Benefit for Rotorua and Christchurch councils are minor when put in the context of these broader measures of economic activity and benefit generated by tourism in the regions. Indeed, the flow-on impacts of tourism in terms of business and household income and employment were considerable, and reflected the overall importance of tourism as an economic activity in national and local economies. It is expected that such detailed analysis for the Mackenzie and Hurunui Districts would show similar results.

Summary

There are a variety of ways in which tourism’s share of various costs and benefits at the regional level could be calculated. This research provides insights into how tourism

¹² The figures were derived from economic models of each region developed by Butcher Partners Limited, and with measure of ‘surplus income’ (returns on capital over and above the opportunity cost of capital) developed by J.P. Moriarty. See *Report 11 Public Sector: Local Government and Regional Yield*.

¹³ Residual Income, is a measure of net benefit, and is equivalent to value-added less the opportunity costs of labour and capital.

operates at a local government level. There is variance between regions depending on the characteristics that exist within the region, e.g. routing of State Highways, council ownership of revenue generating enterprises, funding mechanisms for art galleries and museums, and the nature of the rating base.

This research stream provides a framework for analysing local public sector costs and revenues. The framework can be used by local governments to assess how tourism works in their regions – its size and contribution, the particular characteristics that influence the results achieved and the perspectives that should be considered when interpreting the results.

Furthermore, the research has shown the flow of impacts that tourism creates through the local economies, with these impacts being considerable. These metrics enable local government to consider their direct Net Financial Benefit from tourism in the context of the wider economic impact of tourism in their regions.

For more information about these findings refer to:

- *Report 11: Public Sector: Local Government and Regional Yield*

5 YIELD FROM A SOCIAL AND ENVIRONMENTAL PERSPECTIVE

A critical aspect of this research programme was to develop a wider view of the yield outcomes of tourism. Firm performance and government budgets provide tangible metrics on tourism, but there is a much wider perspective to consider – the relationship between tourism, communities and the physical environment.

This research has sought to consider a number of the more important of these community and environmental relationships. Generating these insights is key to drawing all of the research findings together to understand the sustainability of the tourism sector (refer section 7).

Measuring Yield from Social and Environmental Perspectives

Tourism provides business opportunities, supports jobs and can enable use of resources that may not have value for other uses. On the other hand, many of the resources used by tourism are the social and environmental fabric of the host community. The challenge is to develop a means of assessing these various interests and there are inherent difficulties in doing this. The economic aspects tend to be readily quantifiable, whereas the broader social and environmental aspects of tourism are not as easily quantified or monetised.

Methods

While not specifically measured in this research, the social benefits and costs arising from tourism development are increasingly well documented in New Zealand¹⁴. This research stream, therefore, drew upon these resources to provide an overview of the impacts of tourism on New Zealand's social and physical environment.

Results

Key findings are:

- **Social**

The main social benefits of tourism identified by research are stimulation of economic activity, employment, improved community facilities and cultural interaction. Other benefits can include better facilities in national and local parks, public transport, restaurants and cafés, and even medical services where previously there were none. These are important factors in how tourism contributes to communities.

On the other hand, there are clearly costs involved, and these may not be distributed evenly across the community. Tourism can have the effect of 'crowding out' locals (e.g. through parking issues, congested roads, increased use of public facilities, increased crime, etc), there can be a loss of cultural integrity, increases in traffic accidents and increased demands on volunteers.

Research in five case study regions in New Zealand (Christchurch, Westland, Rotorua, Kaikoura and Akaroa) highlighted that even with very high visitor densities (up to 53%), an overwhelming majority of residents indicated a desire for the continued presence of tourism in their communities. In four of the five study areas,

¹⁴ Shone, M., Horn, C., Moran, D. and Simmons, D. 2005, 'Adapting to tourism: Community responses to tourism in five New Zealand tourism destinations' in D. Simmons and J. Fairweather *The Host Guest Encounter in New Zealand: Foundations for Adaptive Planning and Management*. This provides a comprehensive contemporary review of community tourism impacts in New Zealand.

over half of all residents surveyed wanted to see “more tourism in their home towns” than presently experienced (Akaroa 52% of respondents, Westland 60%, Rotorua 65% and Christchurch 61%). Even in Kaikoura, a rapidly growing tourist town with a high visitor density, the proportion of locals wanting more tourism was larger (39%) than those wanting less (23%). Overall, this research concluded that residents were supportive of tourism in their communities.

Thus, it is concluded that with appropriate planning and local government engagement, tourism generates a social (and economic) benefit for communities.

- **Environmental**

In the New Zealand context, the environment - be it landscape, clean water, fresh air, environmental integrity of conservation leadership - is an essential aspect of New Zealand’s attractiveness as a visitor destination.

The environmental benefits of tourism can include greater environmental awareness and advocacy, increased accessibility for locals (when tourism demand encourages investment in improved facilities and infrastructure) and economic benefit from resources that would have little other financial benefit, so enabling long term protection of environmental or conservation resources.

However, costs from tourism to the environment can be considerable, including such direct impacts as water use, trampling of plants and encroachment into sensitive areas. Indirect costs include disease spread, biosecurity breaches and carbon costs. Within this body of costs, one area that can be quantified is the financial costs associated with travel externalities (refer Table 5).

Table 5: Estimated Environmental Costs of Transport (2001)

Costs of Transport Externalities	\$m/year
Costs of CO ₂ related to transport ¹⁵	-62
Congestion	-79
Road Accidents	-57
Other social and environmental costs of transport	-25
Estimated Value of Non-Market Costs of Transport	-223

In terms of this analysis, different departments and individuals will bear the costs of these impacts at different times and scales. It is therefore difficult to know how to attribute these costs. If these costs appeared on central government’s balance sheet, the Net Financial Benefit that central government receives from tourism would be affected (refer Section 4). Another approach would be to factor these costs into considerations of tourism’s net benefit to New Zealand. Either way, considering these less visible benefits and costs is vital in public sector decision making.

Summary

All economic development is unsustainable if the costs outweigh the benefits and tourism is no exception. It can be difficult to identify which costs are likely to occur, at what time and to whom, but this is the challenge that public sector decision makers regularly address. Regardless of whether impacts can be monetised, quantified or simply

¹⁵ Based on \$25 per tonne of CO₂.

described, all impacts are nonetheless important. This research presented a framework for evaluating the financial benefits and costs of tourism, and enables public sector decision makers to view this information alongside yields from the social and physical environment perspectives.

For more information about these findings refer to:

- *Report 10: Public Sector: Central Government Report*

6 YIELD GENERATED BY DIFFERENT TOURIST TYPES

The yield characteristics of different traveller types were also considered in this research programme. Travellers are the agents of yield within the sector and so it is important to understand the way visitors spend their money and how they impact the areas in which they travel.

This research was based on primary research of different traveller types, with these results being combined with the programme's private and public sector research to enable a more complex examination of tourism's interface with host communities.

Method

International and domestic travellers were surveyed in the two case study regions of Rotorua (n = 451) and Christchurch (n = 1,017). Despite the intention to have a representative sample, English speaking international visitors were over-represented and domestic travellers under-represented.

Travellers were classified as either coach tourists, free independent travellers (FITs), backpackers, camping tourists or home visitors¹⁶. These classifications were chosen because each of these traveller types differ in terms of transport modes, accommodation, length of stay, purpose of visit and age.

Respondents were asked to account for their expenditure, activities undertaken, and facilities and transport used over the preceding 24 hours. This expenditure data was then combined with the public and private sector yield data to assess whether some visitor types are higher yielding than others. Data from the International Visitor Survey was also used to determine travel patterns and to estimate the generation of carbon dioxide (CO₂) emissions while in New Zealand.

This research related tourist expenditure and activities to the forms of yield developed earlier in the programme (e.g. public and private sector yield) and then estimated yield for the different traveller types. The yield measures were:

- Value-added¹⁷ in the private sector yield
- Residual Income¹⁸ to the private sector
- Use of central government and local government resources
- Generation of CO₂ while in New Zealand
- Degree of regional dispersal.

Results

Table 6 over the page ranks each tourist type across all of the yield indicators. Interestingly, no single tourist type stood out as being high yielding from all perspectives.

¹⁶ Home visitors are very similar to the Visiting Friends and Relatives (VFR) market

¹⁷ Value-added is the 'value' which businesses add to the raw material goods and services they purchase and use in the process of producing their own services. Value-added is the returns to labour and capital in the business and is equivalent to wages + Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA).

¹⁸ Residual income is broadly equivalent to the Total Value-added less the economic costs of capital and labour. The opportunity cost of labour is assumed to be the market price paid for it, and the opportunity cost of capital is assumed to be the 5.7% Financial Yield generated in the economy as a whole over the period 1999 – 2003.

Table 6: Ranking of Tourist Types by Yield Indicators

Indicators	Coach tourist	FIT	Back-packer	Camper	Home or VFR	
Value-added and spending	1	2	4	3	5	1 = most value-added 5 = least value-added
Residual Income	5	4	1	2	3	1 = most Residual Income 5 = least Residual Income
Public sector cost (national)	2	3	4	5	1	1 = least cost 5 = most cost
Public sector cost (local)	5	2	4	3	1	1 = least cost 5 = most cost
CO ₂ emissions	3	2	4	5	1	1 = least CO ₂ 5 = most CO ₂
Regional dispersal	5	2	3	1	4	1 = most dispersed 5 = least dispersed

In terms of the different yield measures used, the following results emerged:

- **Expenditure**

Coach tourists were the largest spenders, mainly due to their average spend of \$80 per night for hotel accommodation. Home (or VFR) visitors spent the least, with their largest expenditure items being recreational activities and retail. Differences between the tourist types were particularly evident in the transport and accommodation sectors, and with supermarket expenditure where backpackers and camping tourists spent substantially more than the other tourist types. These spending patterns were consistent between the two case study areas.

- **Value-added**

The pattern of value-added by tourist type is similar to that of expenditure. Coach tourists and FITs contributed the most value-added, whereas the home visitors generated the least. The value-added as a proportion of total expenditure from coach tourists was 31% in Christchurch and 32% in Rotorua. This compared with only 22% for a home visitor in Christchurch and 25% in Rotorua.

- **Residual Income**

The ranking of tourist types changed substantially when Residual Income was considered, with backpackers ranking as high-yielding travellers in both Rotorua and, to a lesser degree, Christchurch. The positive Residual Income associated with camping tourists was also consistent across the two case study areas. The reason for this was that backpackers spent their money in sectors that have higher than average Financial Yield (e.g. youth hostels, recreational activities, pubs and taverns, and the retail sector). Similarly, camping tourists spent a substantial amount on rental vehicles, which in turn delivers comparatively high Financial Yield. The outcome was more mixed for coach tourists and home visitors, who generated positive

Residual Incomes in Rotorua and negative Residual Incomes in Christchurch because of slightly different spending patterns in each city.

- **Public Sector**

Consideration of tourists' activities, especially those provided free of charge by central or local government, provides another lens through which to view tourists' net contributions to the economy. Each tourist type had a different propensity to engage in publicly provided opportunities, be they art galleries, museums or national parks. Combining the propensity to use these services with the average cost to provide such facilities or services enabled the cost per visitor type to be established. Coach tourists generated the highest levels of public expenditure primarily through their higher tendency to visit art galleries/museums, historic buildings and other public places. Backpackers and camping visitors were the most extensive visitors of national parks, bushwalking and glacier walking. Home visitors drew less on these particular activities.

- **Carbon Emissions**

While extensive travel and dispersion can be beneficial from a regional development perspective, it can come at an environmental cost as exemplified by CO₂ emissions. Coach tourists were by far the largest users of air transport (533 km per trip); whereas camping tourists dominated road travel (3,293 km per trip). Home visitors travelled the least distance (1,199 km in total). On this basis, the camping tourist produces most CO₂ emissions during their stay in New Zealand, followed by the backpacker and coach tourist. However, these values need to be put into context to indicate whether they are likely to be significant in terms of overall cost. If the cost to off-set CO₂ emissions was \$25 per tonne, the cost of the transport component of a typical visit to New Zealand for any of these tourist types would vary between \$2.65 and \$6.67 per visitor. This analysis excludes the generation of CO₂ on international travel components.

- **Regional Dispersion**

Regional dispersion is an indicator that can run counter to other indicators. For instance, increased regional travel results positively in regional development but negatively in terms of CO₂ emissions. However, if increased regional employment through tourism is a focal point, then camping visitors are the most beneficial when viewed through this lens. Campers stimulate regional economic activity by getting off the beaten track the most. They do this more than coach tourists with traditional main tourist centre itineraries, or home visitors who do not travel far from their main destination. FITs and backpackers were also relatively well dispersed.

Summary

Taken together, these indicators provide useful perspectives for viewing tourism yield in a more holistic sense and for considering how traveller types differ across the various yield indicators.

This analysis highlights the fact that while the volume of expenditure is often seen as a crucial indicator of benefits for the tourism industry, it can be misleading. Equally important are the relative efficiencies of converting expenditure into value-added to the economy as a whole and Residual Income for firms.

The results make a compelling case for developing, and effectively deploying, tools to assist business improvement in industries with low Residual Income, and in pursuing

visitors with high yield rather than simply high expenditure. The analysis also underscores the emphasis in the New Zealand Tourism Strategy 2015 (NZTS 2015) placed on 'value' over 'volume'.

For more information about these findings refer to:

- *Report 12: Yield and Tourist Types*

This research has been ambitious in terms of its extension into new ways of analysing the tourism sector. It has employed new research methods and concepts with the objective of establishing how New Zealand can increase the contribution tourism makes to our economy and society.

The research focussed on Financial Yields for firms, economic yield across government agencies, yield generated by different tourist types and provided insights on how sustainable yield might be considered and debated. Together, these establish a holistic view of how the sector operates.

At the highest level, the research finds that tourism is a positive contributor to New Zealand although significant gains can be made across all of the above dimensions to secure a higher yielding tourism sector.

While many sectors within the tourism industry already achieve good average Financial Yields, business improvement is needed to lead tourism into being a balanced, high yielding industry. Elsewhere in the tourism sector, central government gains substantial revenues from tourism, local governments are reasonably balanced in terms of their tourism-related revenue and expenditure, communities continue to welcome tourism and there are a range of benefits and costs to the environment from tourism.

Together, these elements contribute to the understandings of the notion of the sustainability of the tourism sector, and highlight where improvements need to be achieved.

Key Findings

The research generated a large body of research findings that are contained in the comprehensive research reports listed throughout this report. The key high-level findings are:

- **Private Sector**

Tourism firms generally generate positive Financial Yields. However, the research also shows that many firms produce lower yields than other firms or sectors across the economy and compared with the opportunity cost of capital. While there are variances between and within sectors, there appears to be no inherent structural reason for these performance levels other than how the individual firms are managed. Evidence highlights considerable management informality in the way tourism firms are run (for instance, in pricing, financial management, human resources and planning areas) although they have a strong focus on their customers and the environment. 'Lifestyle' businesses do not have lower Financial Yields than businesses with a stronger, more obvious, commercial focus. As a result of this research, New Zealand now has what is perhaps the most comprehensive and detailed dataset regarding the performance of tourism operators.

- **Central Government**

Tourism is a net financial contributor to central government. This is primarily due to the nature of the GST revenue that central government receives from international tourism. While government makes a number of tourism-related expenditures (e.g. facilitating access to conservation lands, marketing of New Zealand internationally as a visitor destination, research and policy, etc.), the revenues exceed this expenditure.

This remains the case even if the significant non-market social or environmental costs from the transport sector are considered alongside the overall central government surplus.

- **Local Government**

Tourism is largely cost neutral for local government for the four case study regions examined, although there are variations due to the different characteristics of the regions. The research noted that council benefits and costs need to be considered within the context of flow-on economic (value-added) community benefits and that expenditure on tourism is often a small component of councils' overall budgets.

- **Social and Environment**

Evidence exists that communities are faced with a number of benefits and costs but they continue to show strong overall support for tourism. The conclusion is that currently, net social benefits outweigh costs. Similarly, there are a range of environmental benefits and costs. While these impacts are difficult to measure, the research was able to estimate financial costs for some transport externalities, and these costs were significant.

- **Traveller Types**

The research found that there is no single ideal traveller type for New Zealand tourism – each has merits against the different yield measures (for instance, value-added, Residual Income, public sector costs, carbon emissions and regional dispersion). This highlights the importance of continuing to debate the mix of travellers which will best enable New Zealand to meet its social, cultural, environmental and economic goals.

Future Issues

The research programme has established a suite of metrics to consider tourism sector performance that are more comprehensive than the volumetric or expenditure measures that have previously existed. In doing so, it has highlighted a number of issues facing the sector:

- Tourism firm performance needs to improve if investment is to continue to flow to the sector over the long term. This is important given that investment is needed to lift the quality and value of tourism products and services and to pay tourism employees more to improve the industry's skill and career base. Furthermore, successful and profitable firms can contribute to the wider investment needed across the sector (e.g. in infrastructure development), and to ensuring community support for tourism, supporting environmental stewardship and mitigating the various environmental externalities associated with tourism (e.g. through achieving resource efficiencies).
- With the research showing that tourism firm performance is due to the nature of the management of the firms rather than the inherent structure of the industry, it is desirable that initiatives are focussed in this area. Two initiatives are already in place from the research. Firstly, the development of a *Financial Yield Calculator* allows firms to benchmark themselves with comparable businesses. Secondly, the Ministry of Tourism and Tourism Industry Association are investigating how tools and programmes for tourism SMEs can be better configured to improve firm performance.
- For central government, the research presents information on the positive net gain that it receives from tourism. This information can contribute to any consideration of

the level and distribution of central government support for tourism. This includes national or local infrastructure development, destination management initiatives, research, tourism business development and international marketing of New Zealand as a visitor destination.

- For local government, the research highlighted a number of ways in which councils can consider their role in tourism, and indeed it provides a framework for doing so. Applying the framework will allow, for instance, a council to consider how it might fund its tourism-related activities, raising such questions as whether rating the capital value of properties is the best and most effective mechanism, or whether such principles as targeted user pays should be brought into the mix.
- How New Zealand should consider the non-financial benefits and costs of tourism in its ongoing management processes for the sector is an emerging issue. The research highlights that some of the non-financial costs of tourism can be monetised, and therefore places values on externalities in the tourism sector. As New Zealand's Emission Trading Scheme is being introduced, the sector now faces the payment of such costs. The incorporation of environmental costs into day-to-day thinking will eventually be standard practice and this research underpins this notion and suggests other areas where this could take place.

Next Steps

The Yield Research Programme has taken a holistic examination of the tourism sector. It represents a significant research investment and it is important that it is linked appropriately to the sector, including in policy and ongoing research processes, and that the knowledge base established is utilised and built upon. The key ongoing linkages are:

- **New Zealand Tourism Strategy 2015**

The NZTS 2015's vision is that: *"In 2015, tourism is valued as the leading contributor to a sustainable New Zealand economy"*. This vision is aligned to the objectives of the Yield Research Programme and so the results from the programme will contribute directly to the implementation of the NZTS 2015.

- **Policy Development**

This research has policy implications around a wide range of issues. Its findings have already contributed to policy development in the area of tourism business performance and will contribute to future policy considerations for the public sector.

- **Ongoing Sector Measures**

As part of the implementation of the NZTS 2015 above, the Ministry of Tourism will establish a suite of ongoing performance indicators for the sector, including business performance measures and a range of social and environmental measures.

- **Ongoing Research**

Two research projects have commenced with the completion of the Yield Research Programme and each will develop the findings from this programme. These are projects on 'Spatial Yield' and 'Tourism and Oil' and they are being led by Lincoln University. Both are funded by the Foundation for Research, Science and Technology. The former will explore yield by tourist types in greater depth while the latter will include the development of a Computable General Equilibrium (CGE) model for New Zealand tourism that will further increase the ability to understand the inter-relations between tourism and the wider economy.

GLOSSARY

Tourism Sector

A standard approach has been used to describe tourism:

- **Sector** – broadest description comprising the tourism activity of both the private and public sectors (e.g. conservation lands, border services, council services, hospitality, visitor activities and transport).
- **Industry** – narrower description comprising private sector tourism activity.

Financial Yield

A measure of the degree to which business assets generate cash returns to their owners. Financial Yield is defined as the ratio of:

$$\frac{\text{Net Operating Profit After Tax and Before Interest}}{\text{Total Assets}}$$

Average 'Financial Yield' for all New Zealand businesses

Analysis undertaken in the programme established the average Financial Yield for all New Zealand businesses for which data existed in Statistics New Zealand's data sets (estimated at average of 5.7% over 1999-2003).

Net Financial Benefit

This is the direct financial benefits and costs to government agencies (and then taken together for central government as a whole). For local government, it is the direct financial benefits and costs to the council involved.

Quasi General Equilibrium Approach

This refers to the analytical approach where the economy is viewed as a whole and assumes that resources used in one area (e.g. tourism) would be deployed elsewhere in the economy if tourism did not exist, and that these other areas would generate the same direct taxes and government costs as tourism currently does.

Computable General Equilibrium (CGE) Model

This is a model that allows the economy to be analysed as a dynamic system, with sectors influencing others, and so the economy as a whole. The development of a CGE model for the New Zealand economy that includes tourism will increase the understanding of the dynamic role of tourism in the economy and its inter-relationships with other sectors.

Value-added

The value-added to goods and services by the contributions of capital and labour, and after the costs of bought-in material and services have been deducted from the total value of the output.

Residual Income

This measures 'net benefit' to firms - being the equivalent of value-added, less the opportunity costs of labour and capital. This term is also known as Economic Value Added (EVA).

Economic Multipliers

These are tools for estimating how certain activities flow through and impact on the economy. The multipliers used were from economic models developed for each case study region developed by Butcher Partners Limited and from ratios of surplus income to outputs developed by J P Moriarty.

Externalities

These are unintended societal and environmental costs that do not have market prices. In some cases, economic models can ascribe values to these externalities. In the case of transport, externalities include noise, congestion and CO₂ emissions, and estimated dollar values for these were assessed in this research. Externalities that result in benefits are known as 'merit goods'.

REPORTS OF THE YIELD RESEARCH PROGRAMME

- Report 1 Summary Report of the Yield Research Programme
- Report 2 Dimensions and measurement of yield – S Becken, G V Butcher, R S Cullen, J P Moriarty, J Radford, D G Simmons and J Tan
- Report 3 Sector Performance and Business Benchmarks – J P Moriarty
- Report 4 Performance Benchmarks for NZ Tourism characteristic enterprises based on Financial Yield - J P Moriarty
- Report 5 Performance Benchmarks for NZ Accommodation Enterprises based on Financial yield – J P Moriarty
- Report 6 Division Benchmarks for NZ Tourism Characteristic and Related Industries¹⁹
6A 1999-2003 – J P Moriarty
6B 2000-2004 – J P Moriarty
6C 2001 – 2005 – J P Moriarty
- Report 7 Small Tourism Business Survey Report – K Wason, R Sleeman and D G Simmons
- Report 8A Business Interviews Report – K Wason, R Sleeman, J P Moriarty, D G Simmons
- Report 8B Business Interviews : financial yield benchmarking – J P Moriarty, D G Simmons
- Report 9 Business support programme for small and medium enterprises: existing initiatives and delivery mechanisms – K Wason and R Sleeman
- Report 10 Public Sector: central government report – D G Simmons, R S Cullen, S Becken, J A Lennox, N Taylor
- Report 11 Public Sector: local government and regional yield – G V Butcher
- Report 12 Yield and tourist types – S Becken, D G Simmons, J A Lennox, H Fitt, G V Butcher

¹⁹ These are the same reports with data covering periods.

THE FINANCIAL YIELD CALCULATOR

Financial Yield measures the degree to which business assets generate cash returns to their owners. Financial Yield is defined as the ratio of:

$$\frac{\text{Net Operating Profit After Tax and Before Interest}}{\text{Total Assets}}$$

If the Financial Yield from a business is lower than a business owner could get from other investments, re-investment in the business may be unattractive. For that reason, Financial Yield is a good indicator of a firm's long term sustainability.

The Financial Yield Calculator works out the Financial Yield for tourism operators, and it was designed for people to:

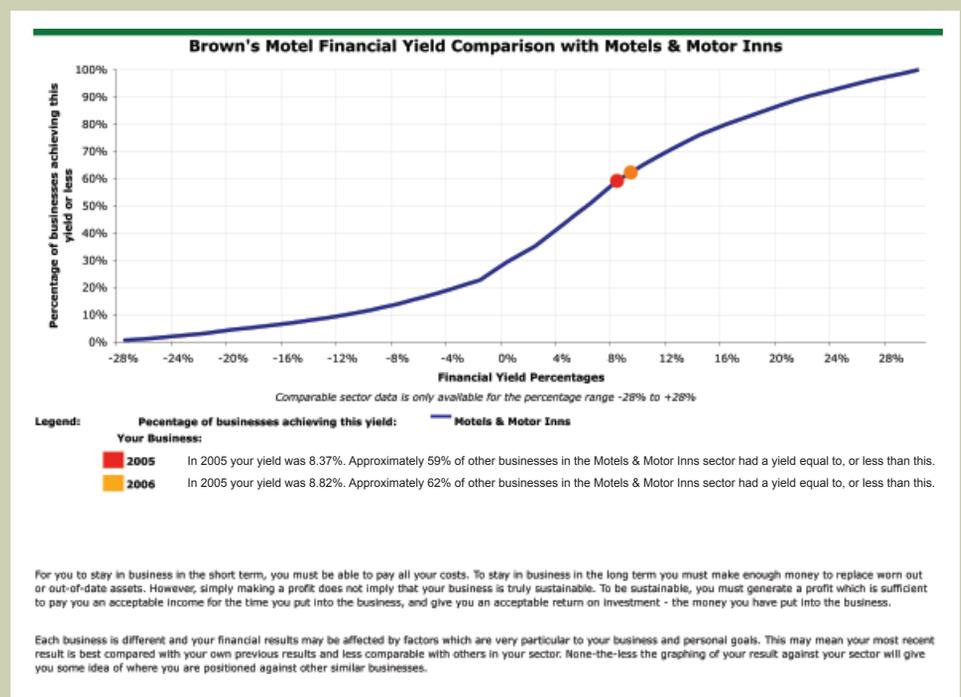
- monitor their own Financial Yields
- compare their results with others from their sector
- and compare their results across the whole tourism industry.

The Calculator is a spreadsheet, which operators can download and save locally on their own computer ensuring confidentiality of their data. The Financial Yield Calculator can be freely accessed from the Tourism Industry Association's website: www.tianz.org.nz

The Financial Yield Calculator – available on www.tianz.org.nz

Business Name:	<input type="text" value="Brown's Motel"/>	(Enter your business name here)
Sector:	<input type="text" value="Motels & Motor Inns"/>	(Select)
Financial Year:	<input type="text" value="2005"/>	(Enter the first year of the data you are comparing. It does not matter what month your financial year
Number of years:	<input type="text" value="Two years"/>	

	2005	2006
	Year 1	Year 2
From your Statement of Financial Performance (P&L)		
Total Sales	\$ 660,340	\$ 710,230
Total Expenses <i>(Including Leases, Depreciation and Interest)</i>	\$ 591,860	\$ 615,490
How much of this was interest?	\$ 201,100	\$ 198,040
How much of this was owners wages or salaries?	\$ 55,000	\$ 60,000
From your Statement of Financial Position		
Total Assets	\$ 3,390,360	\$ 3,420,000
Total Liabilities	\$ 2,184,960	\$ 2,007,440
Owners Equity	\$ 1,205,400	\$ 1,412,560
YIELD	8.37%	8.82%



Ministry of Tourism
PO Box 5640 Wellington
www.tourismresearch.govt.nz

Tourism Industry Association New Zealand
PO Box 1697 Wellington
www.tianz.org.nz

Tourism New Zealand
PO Box 95 Wellington
www.tourismnewzealand.com

Lincoln University
PO Box 84 Canterbury
www.lincoln.ac.nz