

The Economic Impact of the 2005 DHL Lions Series on New Zealand

Prepared for

**Ministry of Tourism, Tourism Auckland, Auckland
City Council and Tourism Dunedin**

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Executive Summary

Background

The 2005 DHL British and Irish Lions Series comprised 8 provincial matches and 3 test matches held over a six week period in June and July. The 11 matches were hosted at nine separate venues in main centres and provincial towns across New Zealand

The arrival of more than 20,000 Lions supporters injected a huge amount of money into the New Zealand economy which was widely distributed across the cities and towns of New Zealand due to the spread of matches across the country.

In addition to the impacts generated by international visitors host regions also benefited from the large number of domestic visitors that travelled from other regions to attend matches and/or soak up the atmosphere.

This study was jointly commissioned by the Ministry of Tourism, Tourism Auckland, Auckland City Council and Tourism Dunedin.

Objectives

The objective of this study is to estimate the economic impact of the 2005 DHL Lions Series on the New Zealand economy, as well as the regional economies of Auckland and Dunedin. The impacts have been measured in terms of the net contribution of the Lions Series to national and regional GDP and employment.

Impact on New Zealand

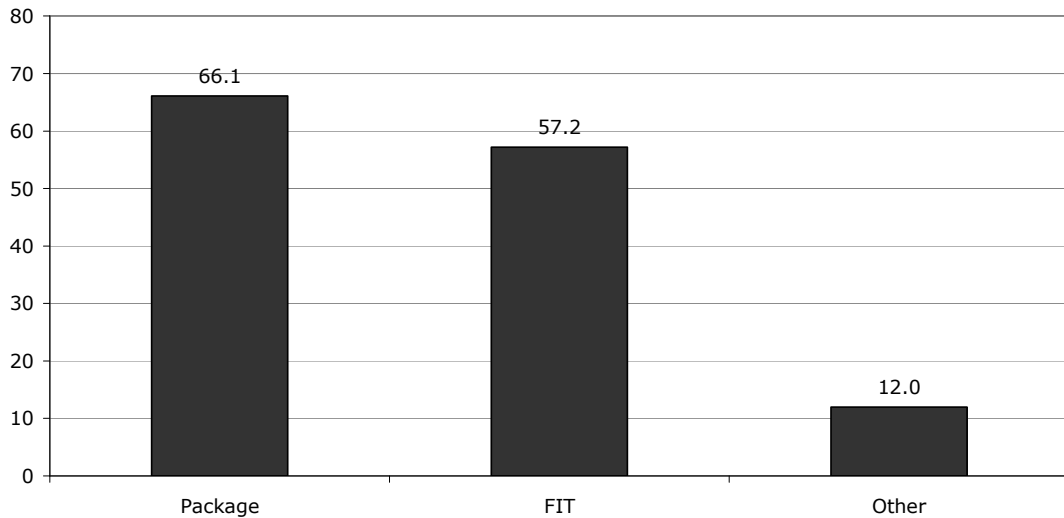
The Lions Series generated a large amount of international and domestic visitor activity in New Zealand. It is not valid to include activity generated by domestic travellers in a national economic impact assessment, so the national impact focuses solely on the economic impacts generated by international visitors to New Zealand.

The Lions Series generated additional foreign exchange earnings of **\$131.0m** which flowed through the New Zealand economy and generated a total GDP impact of **\$135.2m** (including indirect and induced effects). This GDP would not have existed in the absence of the Lions Series. This is a very substantial impact, especially given the relatively short period of time it was generated in.

An estimated 39% (8,000) of all international visitors travelled to New Zealand on some form of package deal, with the remaining 61% (12,400) travelling independently. The industry term for independent travel is "FIT", which stands for "Fully Independent Traveller".

Around \$66.1m (49%) of the total GDP impact was generated by package travellers, \$57.2m (42%) by FIT travellers and the remaining \$12.0m (9%) by “other” income sources such as team expenditure, media expenditure, sponsorship and broadcasting rights.

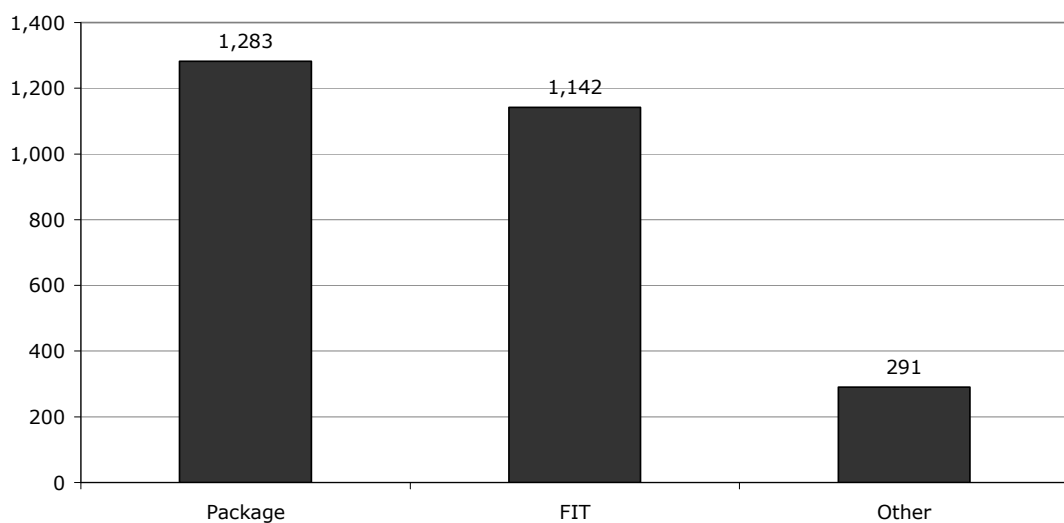
Figure 1 Summary of GDP Impacts (\$NZm)



The additional GDP of **\$135.2m** supported the equivalent of **2,715** full time employees for one year (including indirect and induced effects). This employment impact would not have existed in the absence of the Lions Series.

The additional activity generated by package travellers sustained the largest number of full time equivalents (FTEs) at 1,283, followed by FIT travellers at 1,142 FTEs and “other” income sources at 291 FTEs.

Figure 2 Summary of Employment Impacts (FTEs)



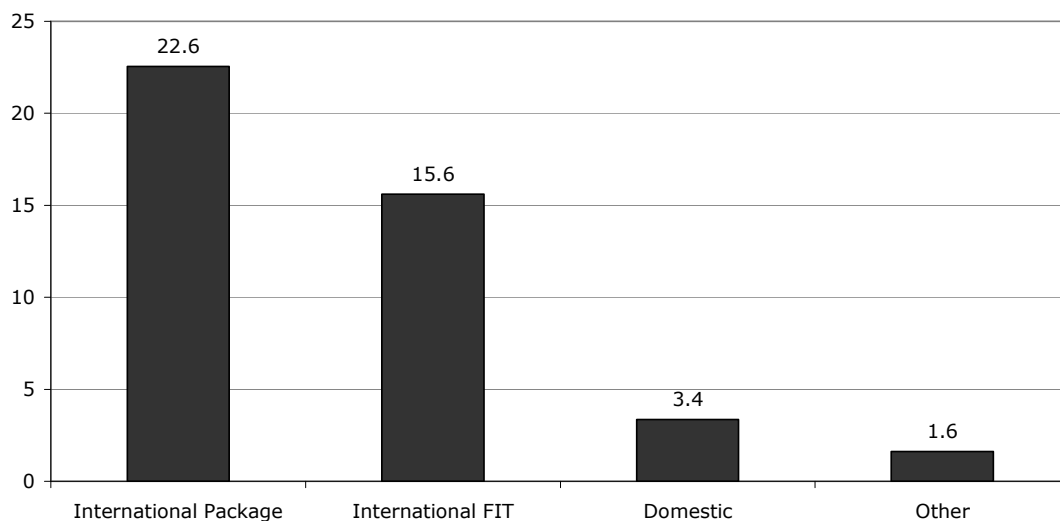
Impact on Auckland

The Lions Series generated an additional **\$53.0m** of revenue in the Auckland region (including domestic traveller revenues) which flowed through the Auckland economy and generated a total regional GDP impact of **\$43.2m** (including indirect and induced effects). This GDP would not have existed in the absence of the Lions Series.

To put the magnitude of this impact into perspective, the visitor impact generated by the Lions Series in Auckland of \$43.2m is more than five times larger than the economic impact generated by the All Blacks vs. England test match at Eden Park in June 2004.

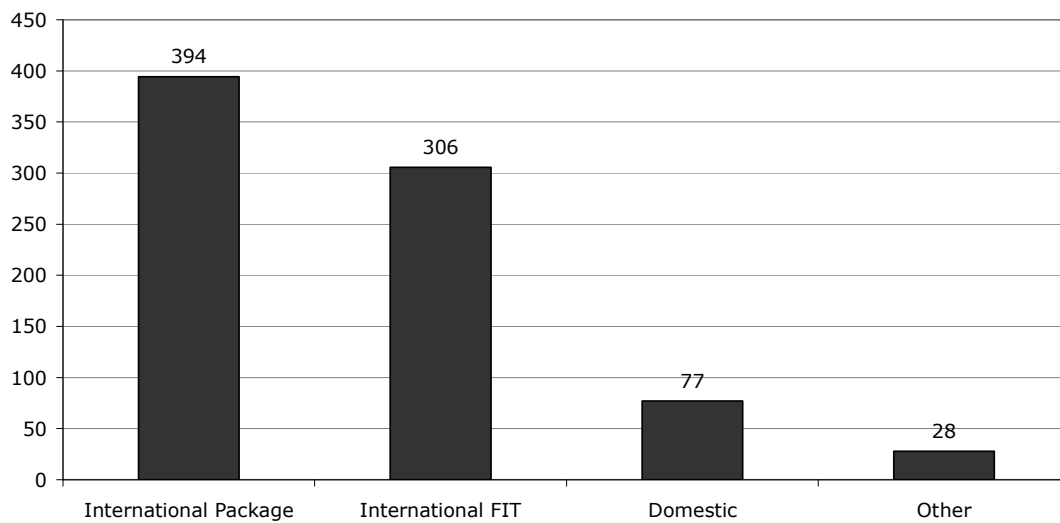
Around \$22.6m of the GDP impact was generated by international package travellers, \$15.6m by international FIT travellers, \$3.4m by domestic travellers from outside Auckland and \$1.6m from “other” income sources.

Figure 3 Summary of GDP Impacts in Auckland (\$NZm)



The additional **\$43.2m** of regional GDP generated by the Lions Series supported the equivalent of **805** full time employees for one year (including indirect and induced effects). This employment impact would not have existed in the absence of the Lions Series.

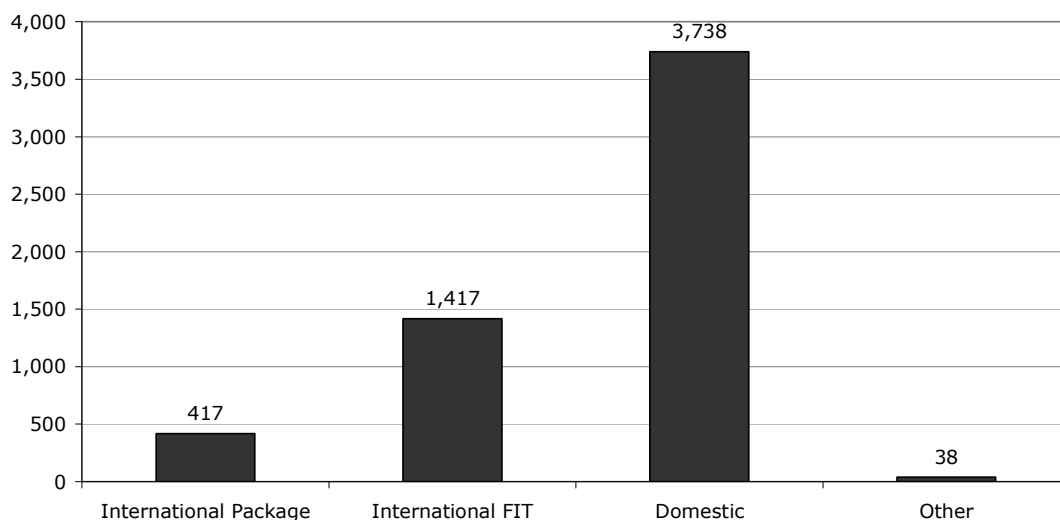
The additional activity generated by package travellers sustained the largest number of full time equivalents (FTEs) at 394, followed by FIT travellers at 306 FTEs, domestic travellers at 77 FTEs and “other” income sources at 28 FTEs.

Figure 4 Summary of Employment Impacts in Auckland (FTEs)

Impact on Dunedin

The Lions Series generated an additional **\$7.5m** of revenue in Dunedin which flowed through the local economy and generated a total regional GDP impact of **\$5.6m** (including indirect and induced effects). This GDP would not have existed in the absence of the Lions Series.

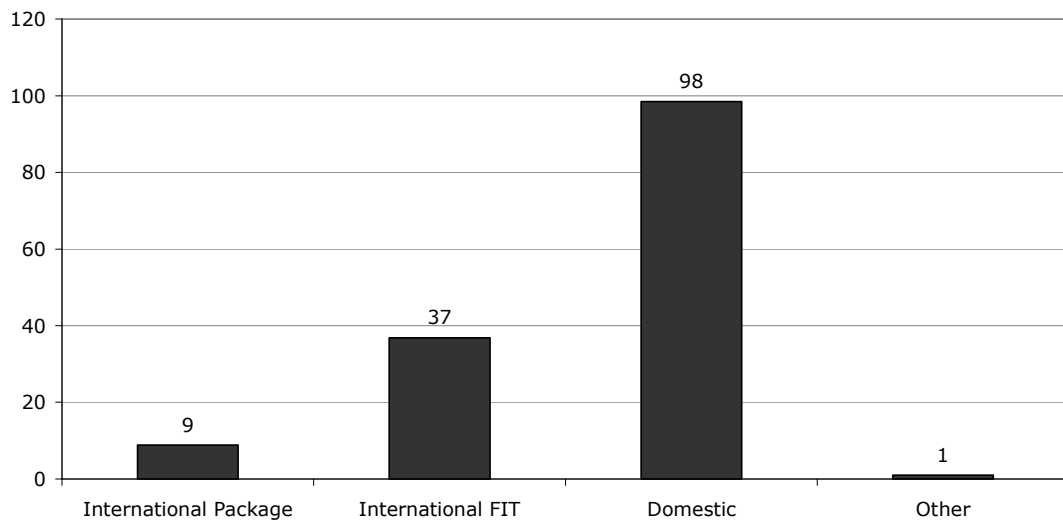
Around \$3.7m of the GDP impact was generated by domestic travellers, \$1.4m by international FIT travellers, \$417,000 by international package travellers and \$38,000 from “other” income sources such as team and media expenditure in Dunedin and the revenues from sponsorship and broadcasting that accrued to organisations within the area.

Figure 5 Summary of GDP Impacts in Dunedin (\$NZ'000s)

The additional **\$5.6m** of regional GDP generated by the Lions Series supported the equivalent of **145** full time employees for one year (including indirect and induced effects). This employment impact would not have existed in the absence of the Lions Series.

The additional activity generated by domestic travellers sustained the largest number of full time equivalents (FTEs) at 98, followed by international FIT travellers at 37 FTEs, international package travellers at 9 FTEs and “other” income sources at 1 FTE.

Figure 6 Summary of Employment Impacts in Dunedin (FTEs)



1. Introduction

1.1. Background

The 2005 DHL British and Irish Lions Series comprised 8 provincial matches and 3 test matches held over a six week period in June and July. The 11 matches were hosted at nine separate venues in main centres and provincial towns across New Zealand as follows:

4 June	Bay of Plenty v Lions (Rotorua)
8 June	Taranaki v Lions (New Plymouth)
11 June	NZ Maori v Lions (Hamilton)
15 June	Wellington v Lions (Wellington)
18 June	Otago v Lions (Dunedin)
21 June	Southland v Lions (Invercargill)
25 June	All Blacks v Lions (Christchurch)
28 June	Manawatu v Lions (Palmerston North)
2 July	All Blacks v Lions (Wellington)
5 July	Auckland v Lions (Auckland)
9 July	All Blacks v Lions (Auckland)

The Lions Series generated a huge amount of interest among international and domestic supporters and dominated media coverage for the entire seven week period that the Lions team was in New Zealand (the team arrived around 1 week prior to the first match).

The arrival of more than 20,000 Lions supporters injected a huge amount of money into the New Zealand economy which was widely distributed across the cities and towns of New Zealand due to the spread of matches across the country. Many international supporters used the Lions Series as an opportunity to travel extensively within New Zealand, basing their itineraries and travel patterns around key Lions matches. Many of the package tours sold to international supporters included visits to a wide variety of locations within New Zealand and entry to some or all of the Lions matches.

In addition to the impacts generated by international visitors host regions also benefited from the large number of domestic visitors that travelled from other regions to attend matches and/or soak up the atmosphere.

This study was jointly commissioned by the Ministry of Tourism, Tourism Auckland, Auckland City Council and Tourism Dunedin. The information presented in this report provides the best available post-event assessment of the Lions Series. It is based on actual data collected from almost 1,000 international and domestic travellers as well as organisations directly involved in the organisation and running of the Lions Series including the New Zealand Rugby Union, Otago Rugby Union, Eden Park Trust, Air New Zealand, and the Inbound Tour Operator Council.

1.2. Objectives

The objective of this study is to estimate the economic impact of the 2005 DHL Lions Series on the New Zealand economy and the regional economies of Auckland and Dunedin. The impacts have been measured in terms of the net contribution of the Lions Series to national and regional GDP and employment.

1.3. Methodology

There were three major components to this study – data collection, data analysis and economic impact calculation. Each of these components is discussed in more detail below.

1.3.1. Data Collection

A large amount of information is required to calculate an economic impact, and this information is generally captured through some form of survey. The major economic benefits associated with the Lions Series were generated by international and domestic travellers, with smaller benefits coming from business transactions and sponsorships deals surrounding the Series.

It was therefore necessary to survey international and domestic travellers to determine how much *additional* national and regional tourism activity was generated by the Lions Series.

Major event surveys are usually conducted face-to-face at the ground by a market research company in the following way:

- Spectators are stopped by survey staff and asked where they are from.
- If they live within the host region they are asked no further questions.
- If they come from outside the host region they are asked a series of questions about their tourism activity in the region. The questions they are asked will vary depending on whether they are New Zealand residents or international visitors. The survey responses are generally collected in paper form.
- The information is subsequently entered into a database by the market research company and the data can then be interrogated.

There are three disadvantages of conducting face-to-face surveys at major events:

1. People at the event are unlikely to have completed their tourism activities in the region, hence data collected at the event will include a reasonable amount of error simply because people will not be able to accurately predict what they are going to spend money on in subsequent days;
2. Face-to-face surveys can be quite time consuming for respondents who would rather be locating their seats or socialising with friends. As a result response rates tend to be quite low and results can be biased by hurried responses; and

3. Face-to-face surveys tend to be quite expensive in terms of cost per completed survey. As an example, collecting data at a match at Eden Park using face-to-face surveying generally costs somewhere in the vicinity of \$15,000-\$20,000. This excludes any downstream analysis or reporting.

To overcome these problems we adopted a survey-based methodology that was administered as follows:

- Around 30 local survey staff were sent to each of the Lions matches in Dunedin and Auckland.
- The survey staff were distributed evenly around the entry points to each ground to ensure that they were speaking to a representative sample of spectators.
- The survey staff asked as many people as they could where they were from. If the respondent said that they were local (i.e. from within Dunedin or the Auckland region) then they were recorded as “Local” on the tally sheet and asked no further questions.
- If the respondent was not local their origin was recorded on a tally sheet as either “Domestic” or “International”. They were then asked if they would like to enter a draw to win \$500 or two Bledisloe Cup tickets. If they said no then they were asked no further questions. If they said yes then they were asked for their email address and phone number, and advised that they may be selected to take part in a survey to help estimate the impact of the Lions Series on New Zealand.
- Each interviewer had several clipboards which allowed contact details to be collected from several respondents at once.
- The speed with which these details could be given resulted in a relatively low number of refusals and a large number of responses.
- The contact details were then entered into a database, which took two people less than a day to complete.

This method of collecting contact details was highly successful, and over the course of 3 Lions matches the survey staff approached around 10,800 people including local residents (around 9% of all spectators) and gathered contact details from around 3,400 non-locals. This provided an excellent sampling base for an online survey.

Table 1 Summary of Survey Responses

Match	Approached (incl. Locals)	Contact Details
Dunedin	2,502	1,127
Auckland	4,170	942
Auckland (Test)	4,117	1,343
TOTAL	10,789	3,412

The online survey was designed as the Lions Series was in progress and was deployed around 2 weeks after the Series was complete. The two week lag was designed to allow international visitors time to complete their stays in New Zealand and answer the survey questions using actual data rather than estimates of future spend, ideally in their own homes and at their own pace.

The survey captured the following data from international and domestic spectators:

- Demographics (age, gender, origin)
- Which airline did you arrive in New Zealand with? (international only)
- Length of stay in New Zealand (international only)
- Package vs. FIT
- If package, what was included in the package?
- How much did the package cost?
- Excluding package costs how much money did you spend in New Zealand? (international only)
- What was this money spent on - international airfares, domestic travel, accommodation, food and beverage, retail shopping, attractions and entertainment, match related expenses, other? (international only)
- How many nights did you spend in Auckland? Dunedin?
- How much money did you spend in Auckland? Dunedin?
- What was the money spent on in each region - domestic travel, accommodation, food and beverage, retail shopping, attractions and entertainment, match related expenses, other?
- Where were you at the time of each of the Lions matches - at the match, in the area, in the country, not in the country?

Of the 3,400 international and domestic email addresses collected approximately one third did not work. This was mainly because some of the handwritten email addresses were difficult to read, but there was also an element of human error in entering the email addresses into the database.

A web link to the survey was sent to the 2,300 active email addresses and the responses were captured electronically by the database behind the website. The data was automatically collated in the database (with 1 row for each respondent) and periodically downloaded as a data file in MS Excel.

In total we received almost 1,000 completed surveys, giving a response rate of around 45%. Online surveys generally achieve response rates of between 30% and 50%, so 45% was highly satisfactory.

Once the data was in Excel it was ready to be analysed and reported on.

1.3.2. Data Analysis

All data analysis was conducted in MS Excel. The key assumptions made during the course of the analysis were:

1. 80% of the Lions-related international air transport revenue captured by Air New Zealand accrued to the Auckland region. This assumption was made on the basis that:
 - Around 80% of long-haul passengers arrive and/or depart from Auckland International Airport; and
 - Air New Zealand headquarters is located in Auckland.
2. 35% of ticket sales including hospitality went towards hospitality costs (ticket prices generally included hospitality so it was difficult to net out).
3. UK based operators made a 20% margin on packages sold to international visitors (i.e. this has been deducted from the average price paid for an international package deal because it is assumed to accrue to businesses in the UK and not New Zealand).
4. Foreign travel agents took an average commission of 7% on seats sold on Air New Zealand planes (i.e. this has been deducted from the average price paid for an Air New Zealand air fare to New Zealand).
5. Only a small (confidential) percentage of Lions ticket sales accrue to the host region – the rest accrues to the New Zealand Rugby Union.

1.3.3. Calculating Economic Impacts

The data collected in the visitor surveys and from key organisations was used to estimate the net national and regional *revenue* impacts attributable to the Lions Series. However, economic impacts are measured in terms of GDP, which is quite distinct from revenue. In simple terms GDP is the difference between revenue and the cost of the goods and services required to meet demand (excluding labour costs). This is equivalent to the wages and salaries paid to employees, taxes paid to government, profits and depreciation. A direct event-related GDP impact is therefore a percentage of the additional revenue generated, but this percentage will vary depending on which sector of the economy the revenue accrues to (some sectors convert a higher percentage of revenue to GDP than others). There are also indirect and induced impacts to take into account, which occur when businesses purchase goods and services off other businesses to satisfy the increase in demand, and workers earn (and spend) more.

Fortunately the direct, indirect and induced impacts of an increase in revenue can be derived using “multipliers” taken from input-output tables. We have sourced our national and regional multipliers from Butcher and Associates in Christchurch.

More information on economic impact measures can be found in Appendix 1.

2. Impact on New Zealand

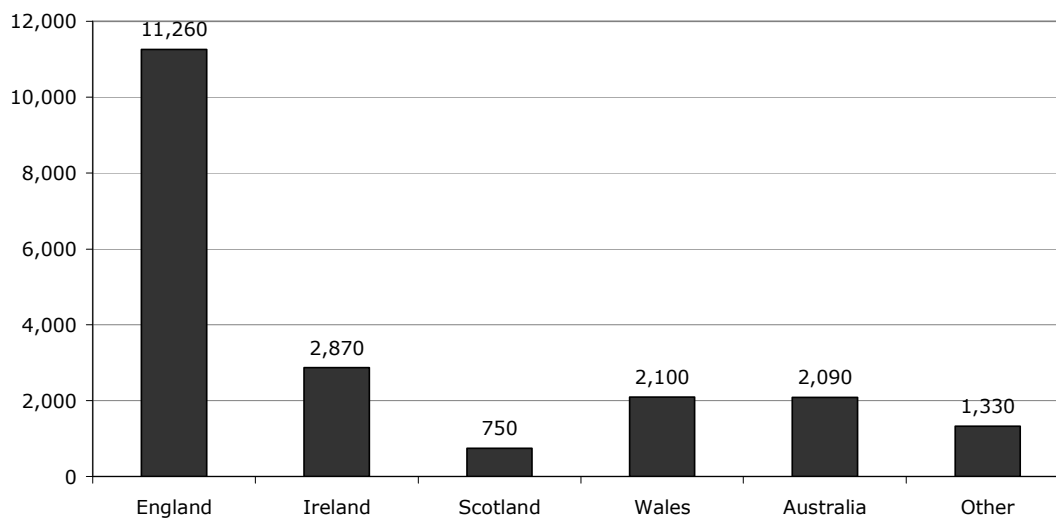
2.1. Introduction

The 2005 DHL Lions Series generated a large amount of international and domestic visitor activity in New Zealand. It is not valid to include activity generated by domestic travellers in a national economic impact assessment¹, so this section focuses solely on the economic impacts generated by international visitors to New Zealand. The additional activity generated by international travellers is first measured in terms of foreign exchange earnings, and subsequently converted to estimates of additional national GDP and employment. None of the identified impacts would have occurred in the absence of the Lions Series.

2.2. Profile of International Visitors

A total of 20,400 international visitors came to New Zealand to be part of the 2005 DHL Lions Series. The largest contingent came from England (11,260), followed by Ireland (2,870), Wales (2,100), Australia (2,090) and Scotland (750). The remaining 1,330 visitors came from other countries.

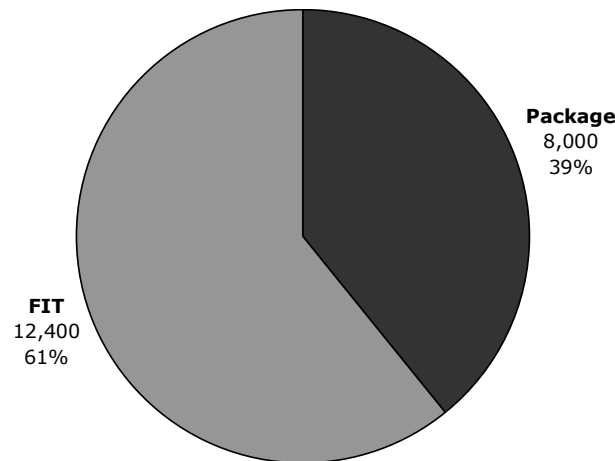
Figure 7 International Visitor Numbers by Origin



¹ The reason for this is that domestic expenditures represent transfers between regions that do not create any additional *national* GDP. However, domestic transfers will generate additional *regional* GDP because money spent by non-residents is a net export to the region i.e. it is generating activity in the region that would not otherwise have existed.

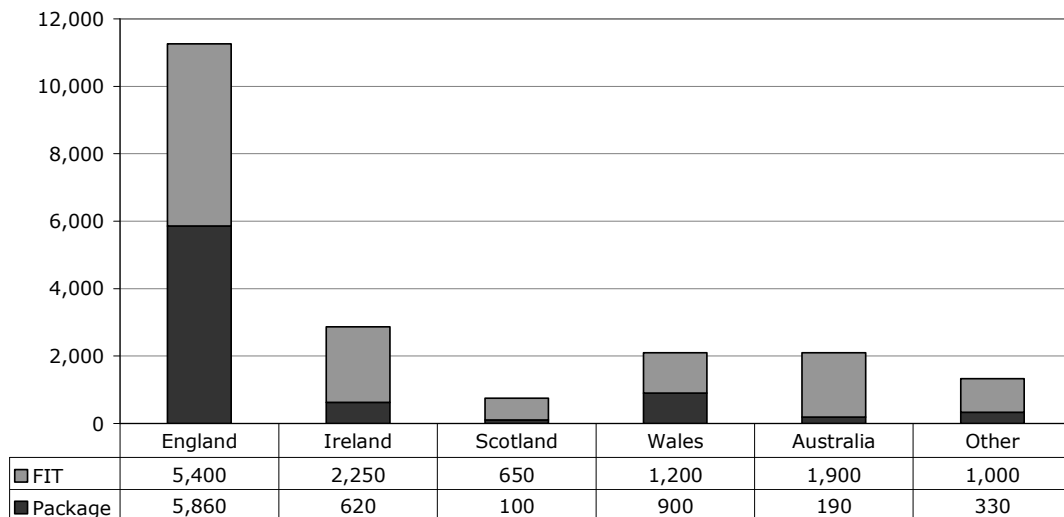
An estimated 39% (8,000) of all international visitors travelled to New Zealand on some form of package deal, with the remaining 61% (12,400) travelling independently. The industry term for independent travel is "FIT", which stands for "Fully Independent Traveller".²

Figure 8 International Visitor Numbers by Travel Type



Almost 75% (5,860) of the 8,000 package travellers came from England, with a further 11% (900) coming from Wales. The remaining package travellers came from Ireland (620), Australia (190), Scotland (100) and other countries (330). England was the only market that had more package travellers than FIT travellers.

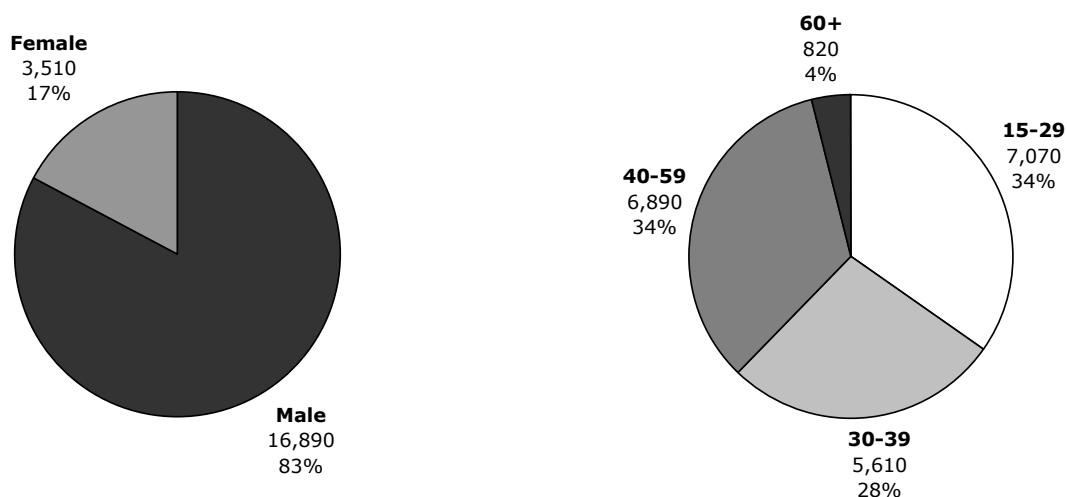
Figure 9 International Visitor Numbers by Travel Type and Origin



² To be officially classified as FIT a visitor must *not* have paid for any of the following before entering New Zealand: domestic airfares, accommodation, meals, other transport, some attractions, event/conference fees or education fees (source: The Ministry of Tourism).

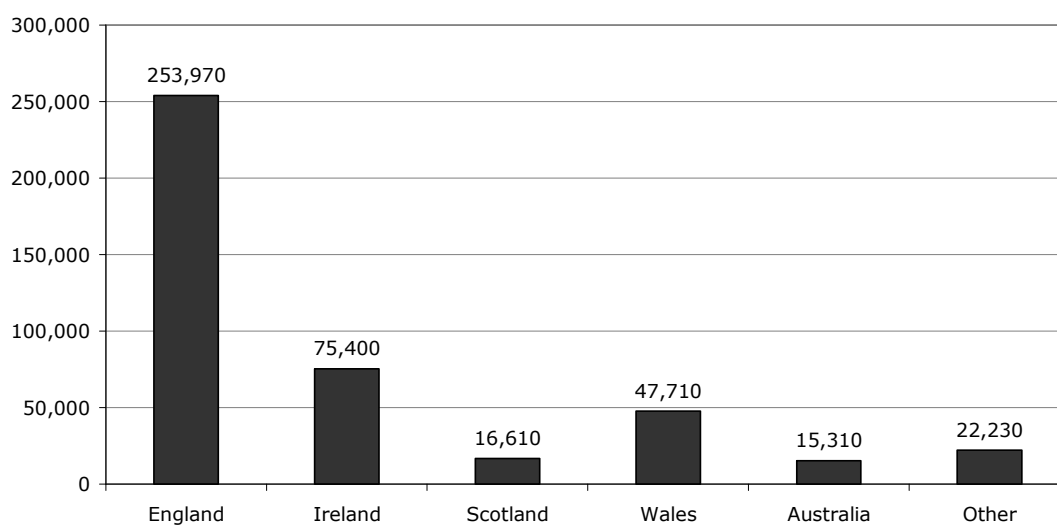
Around 83% (16,890) of international visitors were male, the remaining 17% (3,510) female. Just over one third (7,070) of these visitors were in the 15-29 age bracket, with a further third in the 40-59 bracket. Around 28% (5,610) visitors were in the 30-39 age bracket with the remaining 4% (820) in the 60+ bracket.

Figure 10 Demographics of International Visitors



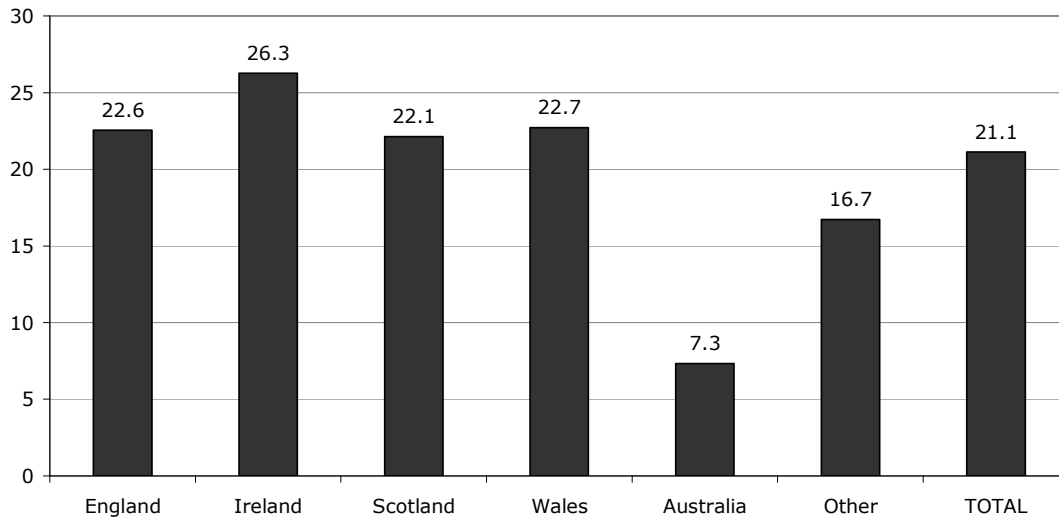
An additional **431,230** international visitor nights in New Zealand can be linked directly to the Lions Series. These nights would not have been spent in New Zealand in the absence of the Series. Visitors from England spent a total of 253,970 additional nights in New Zealand, followed by visitors from Ireland (75,400), Wales (47,710), Scotland (16,610) and Australia (15,310). The remaining 22,230 nights were spent by visitors from other countries.

Figure 11 International Visitor Nights in New Zealand



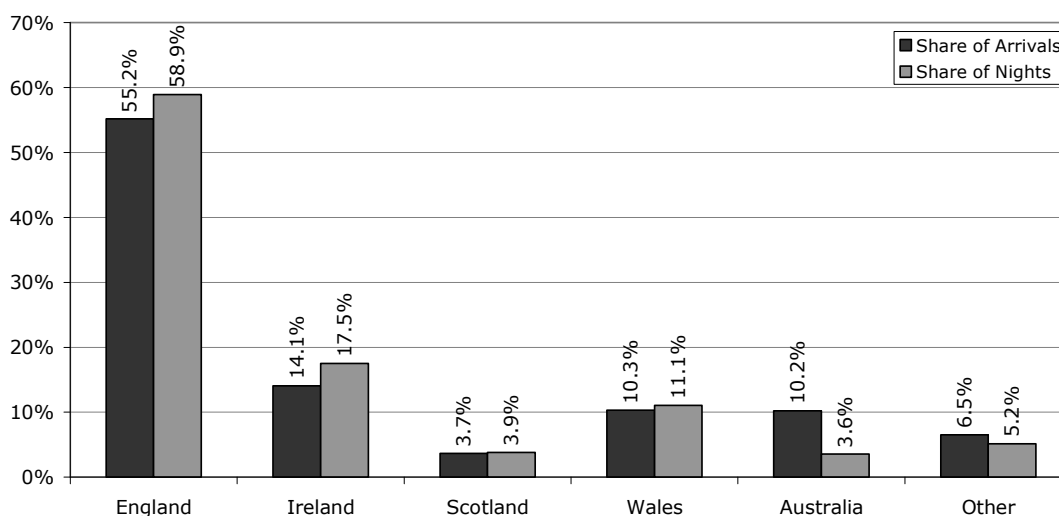
On average visitors from Ireland stayed the longest in New Zealand (26.3 nights), followed by visitors from Wales (22.7 nights), England (22.6 nights), Scotland (22.1 nights) and Australia (7.3 nights). The average length of stay in New Zealand by all international visitors was 21.1 nights.

Figure 12 Average Length of Stay in New Zealand by International Visitors



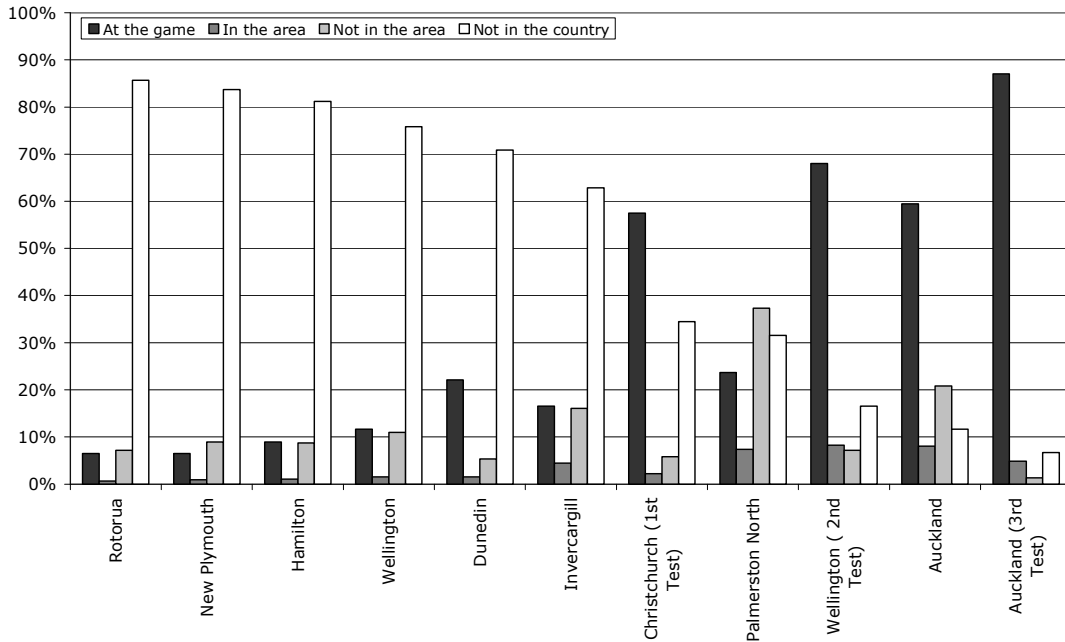
In percentage terms visitors from England accounted for the largest shares of visits and nights (55.2% and 58.9% respectively), followed by visitors from Ireland (14.1% and 17.5%) and Wales (10.3%, 11.1%). Visitors from Australia accounted for the next highest share of visits (10.2%) but due to their relatively short length of stay only accounted for 3.6% of total nights. Visitors from Scotland accounted for 3.7% of visits and 3.9% of nights while visitors from other countries accounted for the remaining 6.5% of visits and 5.2% of nights.

Figure 13 Shares of International Visitor Arrivals and Nights



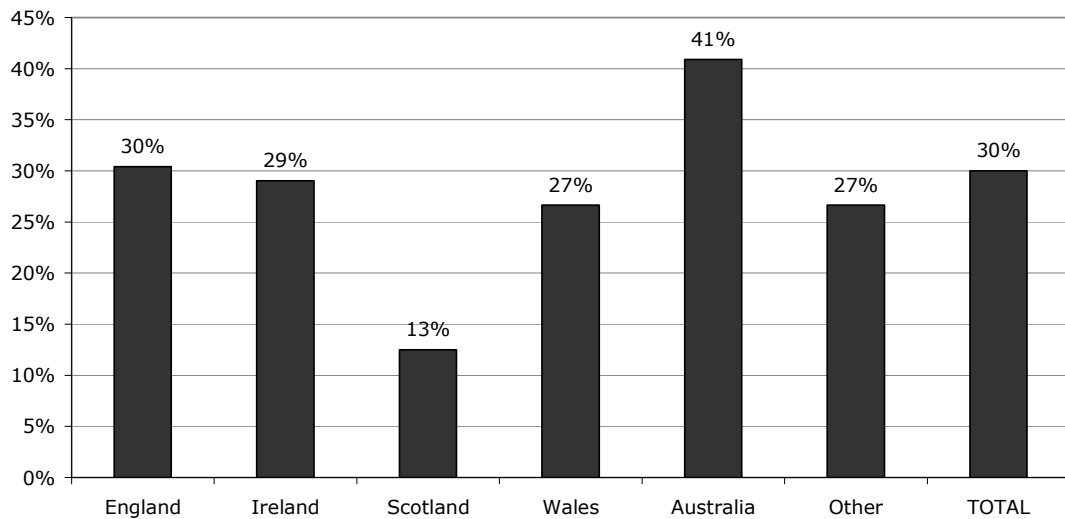
International visitor numbers increased as the series progressed, with a major influx immediately prior to the first test match in Christchurch. Around 25% of international visitors were either at the game or in Dunedin for the Otago match and almost 95% were either at the game or in Auckland for the final test match.

Figure 14 International Travel Patterns



In total 30% of all international visitors arrived in New Zealand on Air New Zealand. Around 41% of visitors from Australia arrived on Air New Zealand, 30% from England, 29% from Ireland, 27% from Wales and just 13% from Scotland.

Figure 15 Percentage of International Visitors Arriving on an Air New Zealand Plane



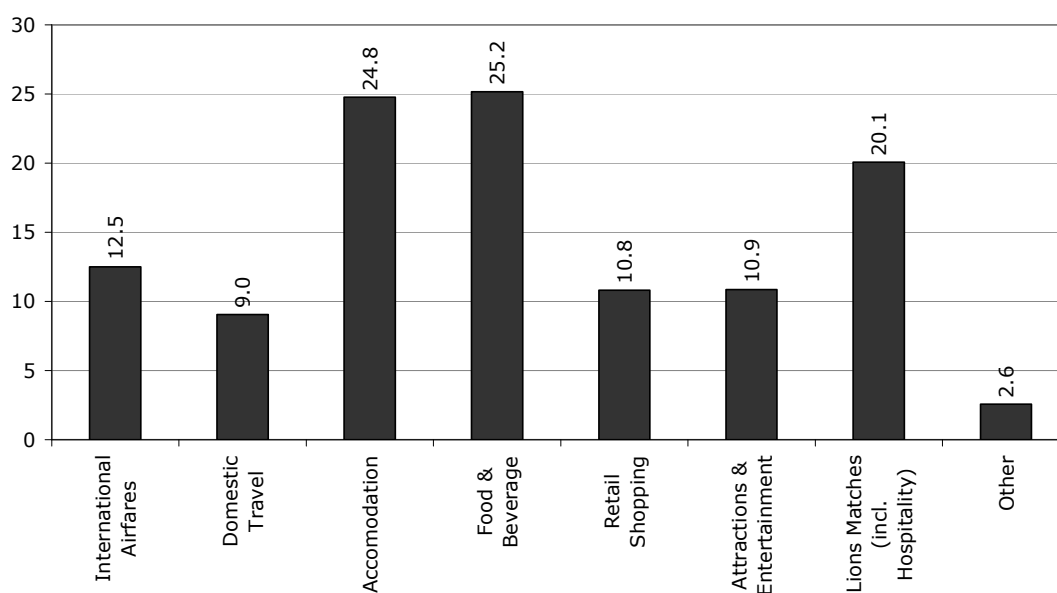
2.3. Foreign Exchange Impacts

This section estimates the additional foreign exchange impacts generated by the 2005 DHL Lions Series. The impacts were generated by international visitors to New Zealand and also by international business transactions surrounding the Lions Series.

2.3.1. Visitor Impacts

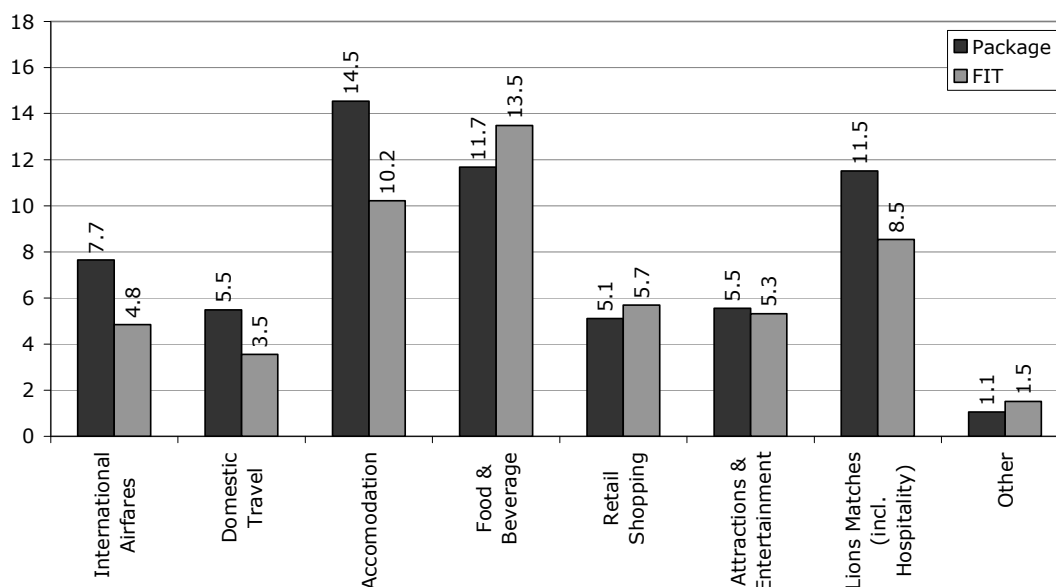
Expenditure by international visitors to New Zealand generated additional foreign exchange earnings of **\$115.7m** (excluding GST). These earnings would not have existed in the absence of the Lions Series. Food and beverage was the largest individual expenditure item at \$25.2m, followed by accommodation (\$24.8m), and match related expenses (\$20.1m). International airfares, domestic travel, retail shopping and attractions each generated between \$9m and \$12.5m of additional foreign exchange earnings.

Figure 16 Foreign Exchange Earnings by Expenditure Item (\$NZm excl. GST)



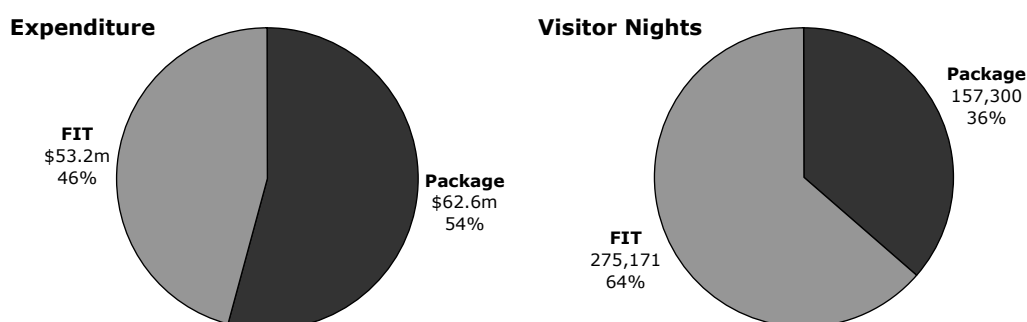
Package travellers spent the largest aggregate amount of money on accommodation at \$14.5m, with FIT travellers spending \$10.2m. In aggregate FIT travellers spent slightly more on food and beverage and retail shopping than package travellers, but less on all other expenditure items surveyed. Given that there were over 50% more FIT travellers than package travellers in New Zealand (12,400 vs. 8,000) it is clear that package travellers spent considerably more than FIT travellers per visit.

Figure 17 Foreign Exchange Earnings by Expenditure Item and Traveller Type (\$NZm excl. GST)



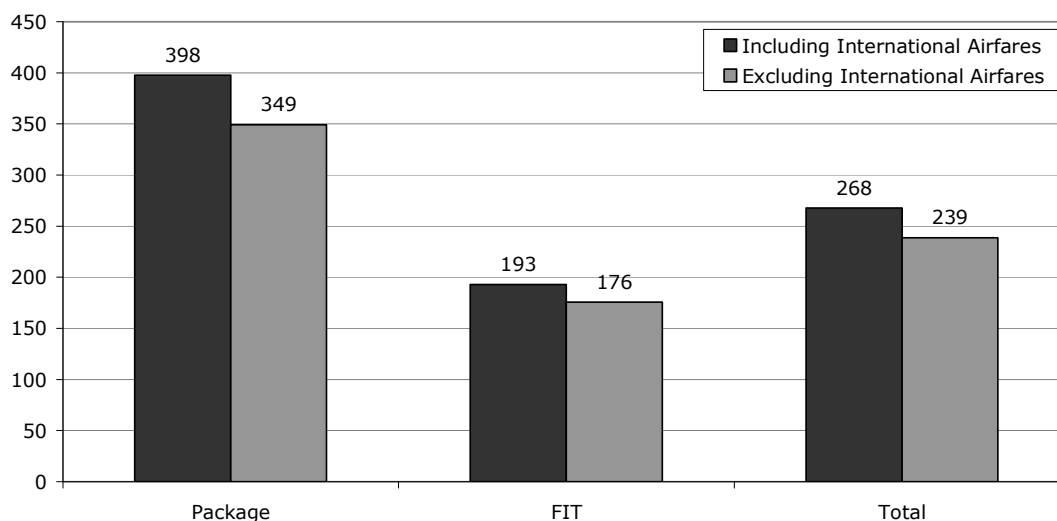
Package travellers accounted for 36% (157,300) of visitor nights in New Zealand and 54% (\$62.6m) of international expenditure. This confirms that package travellers spent significantly more money in New Zealand per visitor night than FIT travellers.

Figure 18 Shares of Expenditure and Visitor Nights by Traveller Type



Excluding international airfares, packager travellers spent an average of \$349 per night in New Zealand (excluding GST), almost twice as much as FIT travellers who spent an average of \$176 per night. Overall, international visitors spent an average of \$239 per night in New Zealand excluding international airfares and \$268 per night including international airfares (excluding GST).

Figure 19 Average International Spend per Night (\$NZ excl. GST)



2.3.2. Other Impacts

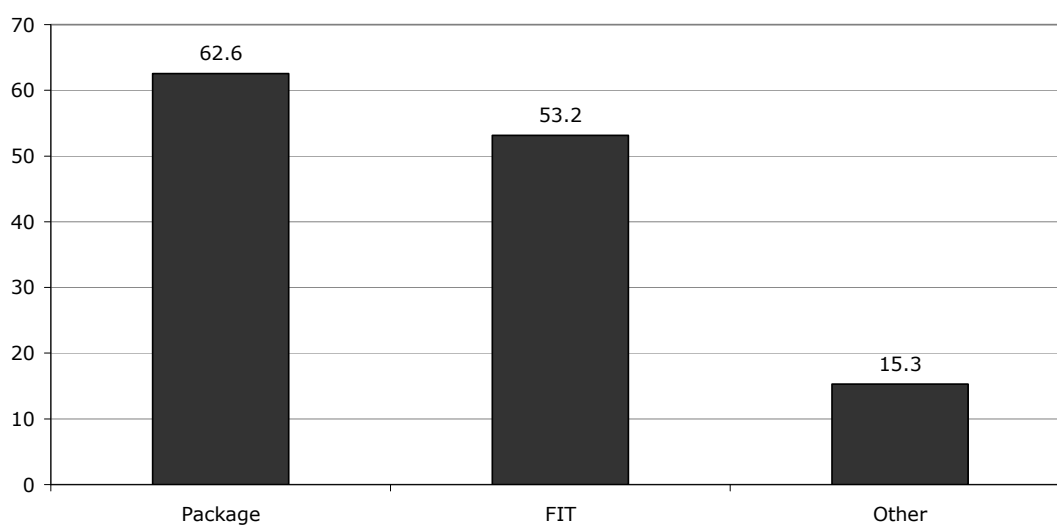
In addition to the visitor related impacts there were several other foreign exchange impacts associated with the Lions Series, including the expenditure of the Lions team in New Zealand (excluding the costs covered directly or indirectly by the New Zealand Rugby Union), media expenditure, international sponsorship and broadcasting fees. To protect confidentiality these "other" income sources have been aggregated and presented as a single figure.

In aggregate "other" income sources associated with the 2005 DHL Lions Series generated around **\$15.3m** of additional foreign exchange earnings for New Zealand. These earnings would not have existed in the absence of the Lions Series.

2.3.3. Summary of Foreign Exchange Impacts

In aggregate the Lions Series increased New Zealand's foreign exchange earnings by **\$131.0m**. These earnings would not have existed in the absence of the Lions Series. The largest foreign exchange impact was generated by package travellers (including VIPs) at \$62.6m, followed by FIT travellers at \$53.2m. The remaining foreign exchange impact of \$15.3m was generated by Lions team expenditure, media expenditure and international revenues from sponsorship and broadcasting.

Figure 20 Summary of Foreign Exchange Impacts (\$NZm excl. GST)

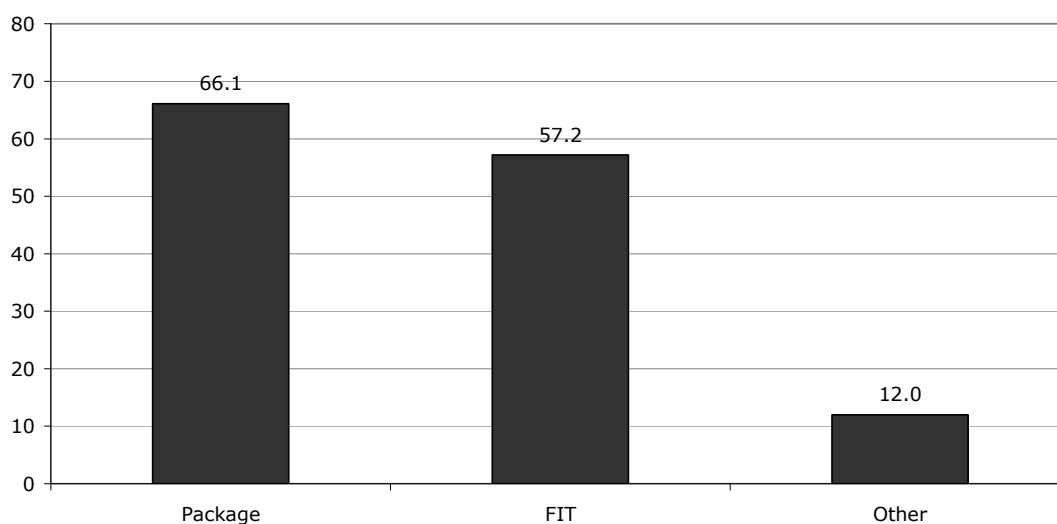


2.4. GDP and Employment Impacts

The **\$131.0m** of foreign exchange earnings identified in the previous section flowed through the New Zealand economy and generated a total GDP impact of **\$135.2m** (including indirect and induced effects). This GDP would not have existed in the absence of the Lions Series. This is a very substantial impact given the relatively short period of time it was generated in (around 6 weeks), and it occurred during the off peak season when international visitor numbers are traditionally low.

Around \$66.1m (49%) of the total GDP impact was generated by package travellers, \$57.2m (42%) by FIT travellers and the remaining \$12.0m (9%) by “other” income sources such as team expenditure, media expenditure, sponsorship and broadcasting rights.

Figure 21 Summary of GDP Impacts (\$NZm)

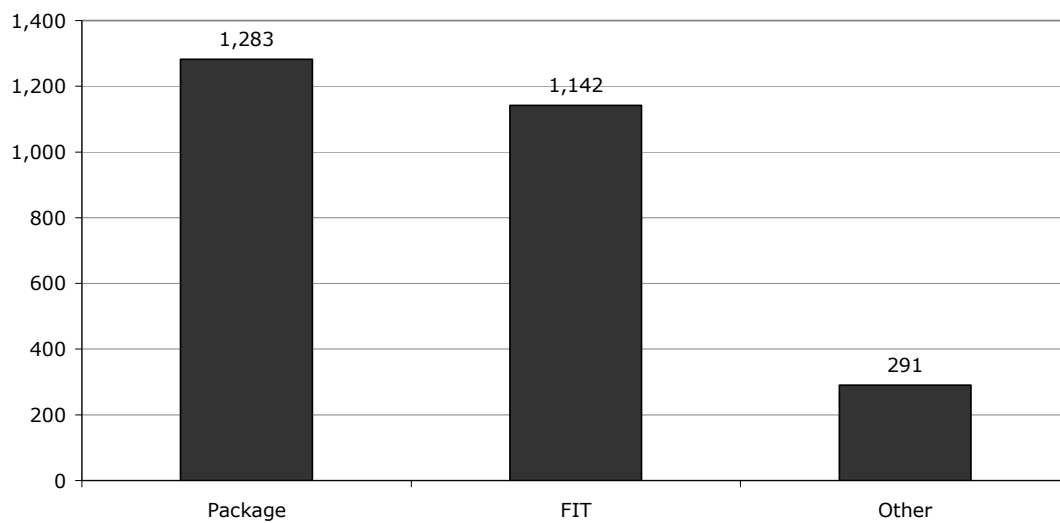


The additional GDP of **\$135.2m** generated by the Lions Series supported the equivalent of **2,715** full time employees for one year (including indirect and induced effects). This employment impact would not have existed in the absence of the Lions Series.

The additional activity generated by package travellers sustained the largest number of full time equivalents (FTEs) at 1,283, followed by FIT travellers at 1,142 FTEs and “other” income sources at 291 FTEs.

By any measure these are very substantial impacts, particularly during a traditionally quiet part of the year.

Figure 22 Summary of Employment Impacts (FTEs)



3. Impact on Auckland

3.1. Introduction

The 2005 DHL Lions Series generated a large amount of international and domestic visitor activity throughout New Zealand, particularly in the towns and cities hosting Lions matches. While the focus of the previous section was on the foreign exchange earnings generated by the Lions Series, this section includes domestic visitor impacts because money spent in Auckland by domestic visitors (excluding Auckland residents) legitimately increases GDP and employment levels in the region.

The additional activity generated by international and domestic travellers is first measured in terms of additional revenue in Auckland, and subsequently converted to estimates of additional regional GDP and employment using regional multipliers. None of the identified impacts would have occurred in the absence of the Lions Series.

Auckland hosted the final two matches in the Series – a match against Auckland on the 5th of July and the 3rd test against the All Blacks on the 9th of July. The results shown below are *combined* impacts across the two matches.

Eden Park was filled to its capacity of 47,500 for both matches with over half of the spectators at each match coming from outside the Auckland region. This section is concerned with the activities of non-Auckland residents who generate *additional* activity in the Auckland economy, so the activities of Auckland residents are excluded from this analysis.

As well as hosting two events Auckland was used as a “base-camp” for much of the Series by the Lions team and some international visitors. Auckland also captured a large percentage of the international air transport expenditures (mainly from visitors arriving on Air New Zealand flights) and a high proportion of the wholesale margins on packages sold either directly or indirectly to international visitors. Auckland therefore captured a higher than average share of the international visitor impact.

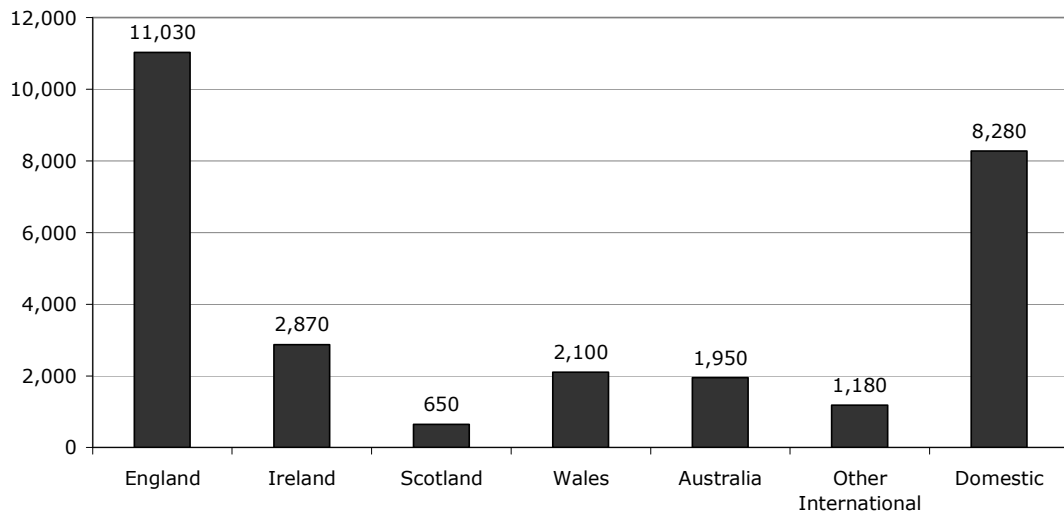
All references to Auckland should be interpreted as *Auckland Region*, not *Auckland City*.

Note: Regional impacts include impacts generated by domestic visitors from outside the region, whereas national impacts exclude impacts generated by domestic visitors. This means that the sum of the regional impacts will exceed the national impact, because the regional impacts include domestic impacts and the national impact does not. It is therefore invalid to express the total Auckland impact as a percentage of the total national impact because they include different things.

3.2. Profile of Visitors to Auckland

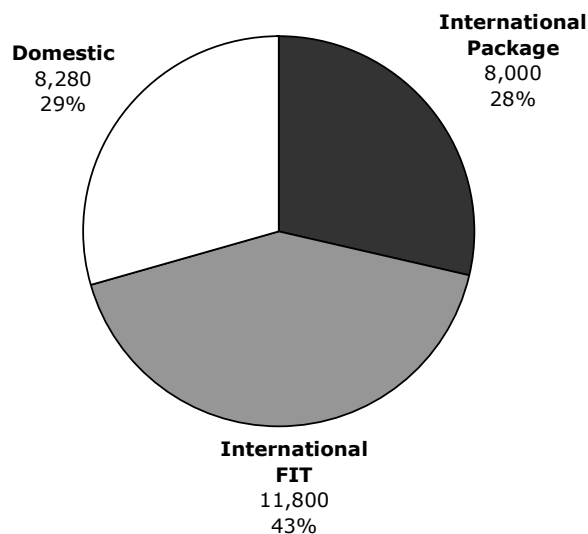
A total of **19,780** international travellers visited Auckland as part of the 2005 DHL Lions Series as well as **8,280** domestic travellers (excluding Auckland residents). These visitations would not have occurred in the absence of the Lions Series. The largest international contingent came from England (11,030), followed by Ireland (2,870), Wales (2,100), Australia (1,950) and Scotland (650). The remaining 1,180 international visitors came from other countries.

Figure 23 Visits to Auckland by Origin



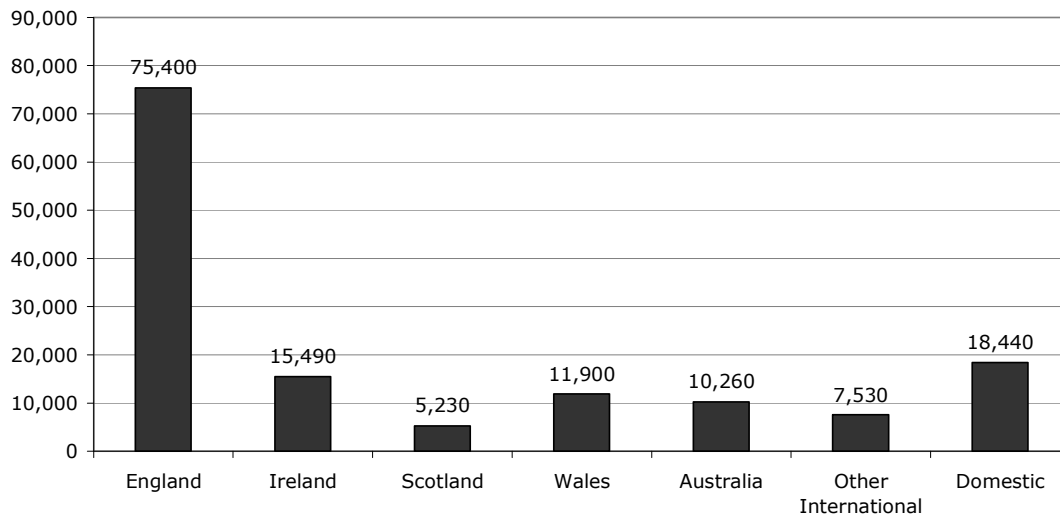
International package travellers accounted for 28% (8,000) of Lions related visits to Auckland, international FIT travellers 43% (11,800) of visits and domestic travellers from outside Auckland the remaining 29% (8,280) of visits.

Figure 24 Visits to Auckland by Traveller Type



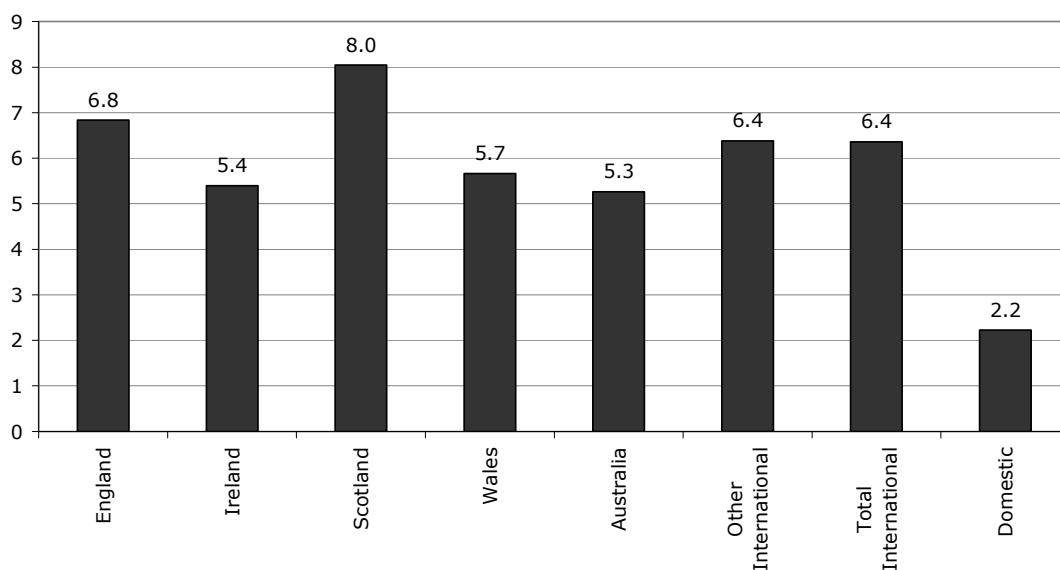
An additional **144,250** visitor nights in Auckland can be attributed directly to the Lions Series. These nights would not have been spent in Auckland in the absence of the Series. Visitors from England spent a total of 75,400 nights in Auckland, followed by domestic visitors living outside Auckland (18,440), visitors from Ireland (15,490), Wales (11,900), Australia (10,260) and Scotland (5,230). The remaining 7,530 nights were spent by visitors from other countries.

Figure 25 Visitor Nights in Auckland by Origin



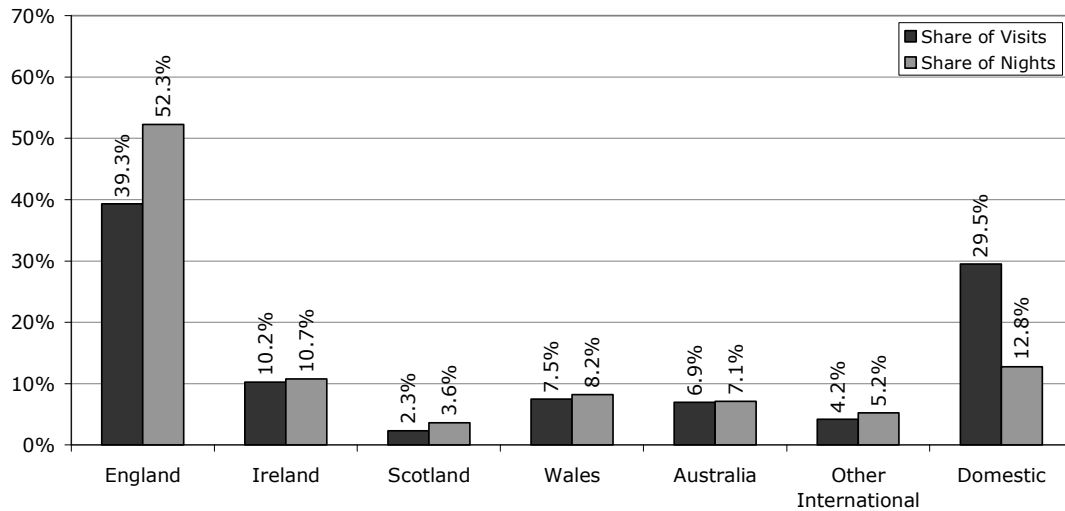
On average visitors from Scotland stayed the longest in Auckland (8.0 nights), followed by visitors from England (6.8 nights), Wales (5.7 nights), Ireland (5.4 nights) and Australia (5.3 nights). Overall international visitors spent an average of 6.4 nights in Auckland, while domestic visitors spent an average of 2.2 nights.

Figure 26 Average Length of Stay in Auckland by Lions Visitors



In percentage terms visitors from England accounted for the largest shares of Lions related visits and nights in Auckland (39.3% and 52.3% respectively), followed by domestic visitors from outside Auckland (29.5% and 12.8%), visitors from Ireland (10.2% and 10.7%) and visitors from Wales (7.5% and 8.2%).

Figure 27 Shares of Visitor Arrivals and Nights in Auckland



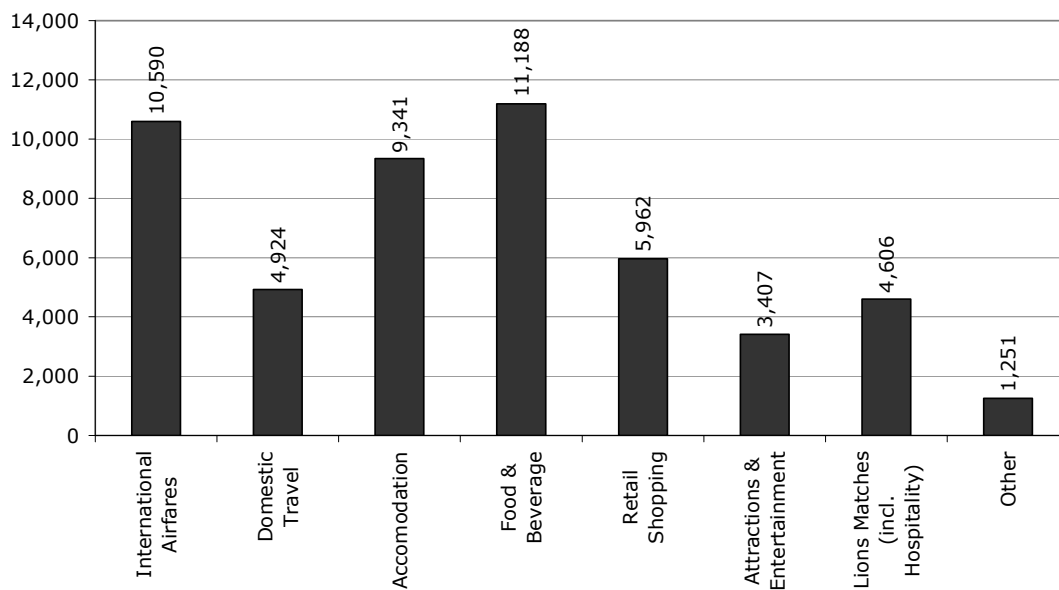
3.3. Additional Revenue in Auckland

This section estimates the additional revenue generated by the 2005 DHL Lions Series in Auckland. The impacts were generated by international and domestic visitors to Auckland and also by international and domestic business transactions surrounding the Lions Series.

3.3.1. Visitor Impacts

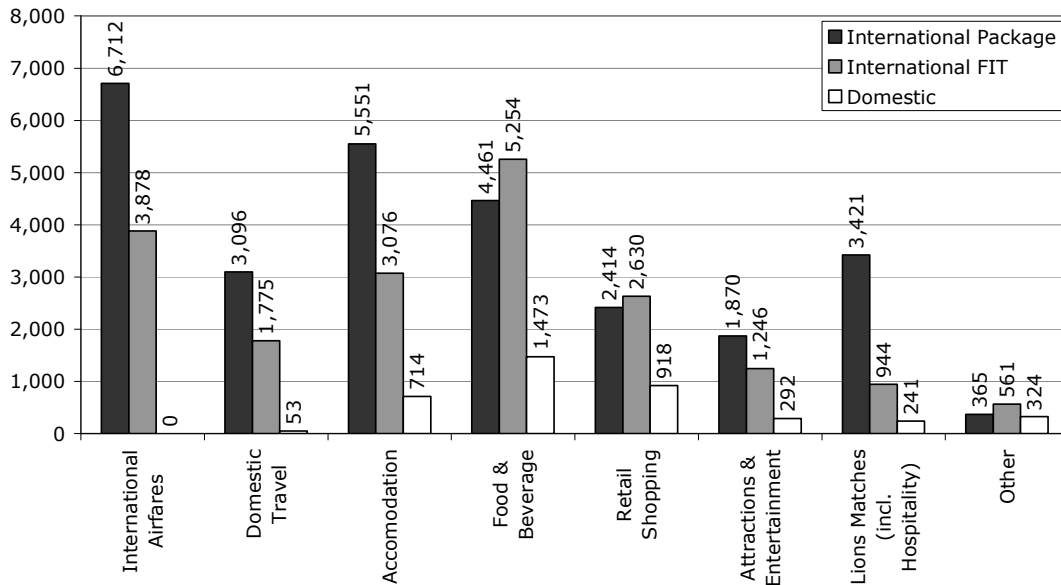
Expenditure by visitors to the region generated additional revenue in Auckland of **\$51.3m** (excluding GST). Food and beverage was the largest expenditure item at \$11.2m, followed by the international air transport costs accruing to Auckland (\$10.6m), accommodation (\$9.3m), retail shopping (\$6.0m) and transport (\$4.9m). The additional \$4.6m of revenue associated with the two Lions Matches in Auckland was derived from hospitality revenues, ground hire and the share of ticket sales accruing to Auckland Rugby.

Figure 28 Additional Revenue in Auckland by Expenditure Item (\$NZ'000s excl. GST)



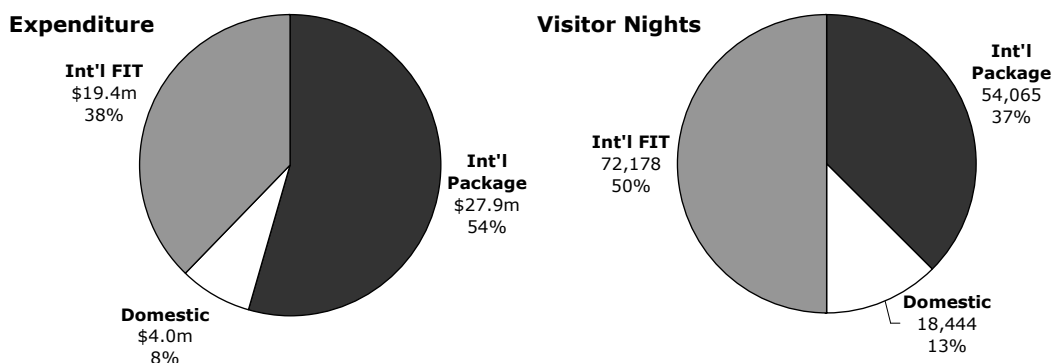
In aggregate international package travellers spent the largest amount of money across all expenditure items except food and beverage and retail shopping. International visitors spent significantly more money in Auckland than domestic visitors.

Figure 29 Additional Revenue in Auckland by Item and Traveller Type (\$NZ'000s excl. GST)



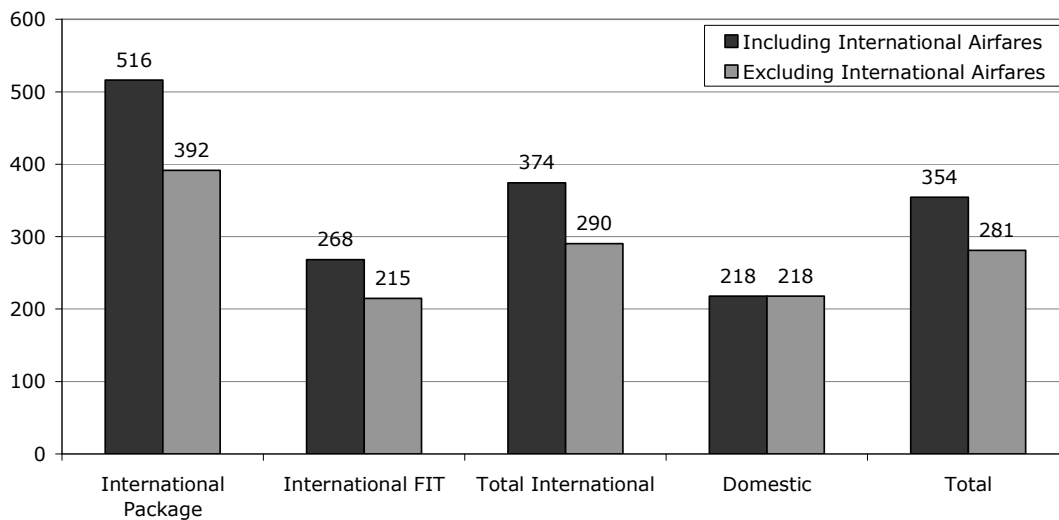
Package travellers accounted for 37% (54,065) of visitor nights in Auckland and 54% (\$27.9m) of additional expenditure in the region. This confirms that package travellers spent significantly more money in Auckland per visitor night than international FIT and domestic travellers. International FIT travellers generated half of the visitor nights in Auckland (72,178) and 38% (\$19.4m) of Lions-related expenditure, with domestic visitors generating the remaining 13% (18,444) of visitor nights and 8% (\$4.0m) of expenditure.

Figure 30 Shares of Expenditure and Visitor Nights by Traveller Type



Excluding international airfares, international package travellers spent an average of \$392 per night in Auckland (excluding GST), almost twice as much as international FIT travellers who spent an average of \$215 per night. Overall, international visitors spent an average of \$290 per night in Auckland excluding international airfares and \$374 per night including international airfares (excluding GST). Domestic travellers spent an average of \$218 per night in Auckland (excluding GST), which is comparable to the nightly spend by international FIT travellers (excluding international airfares and GST).

Figure 31 Average Spend per Night in Auckland (\$NZ excl. GST)



3.3.2. Other Impacts

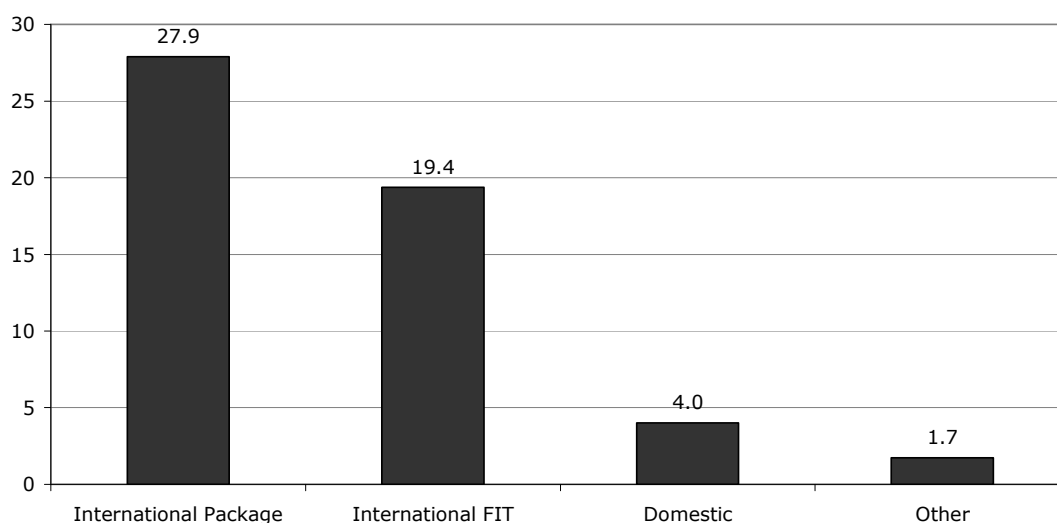
In addition to the visitor related revenue impacts there were several other revenue impacts associated with the Lions Series, including the expenditure of the Lions team and the All Blacks team in Auckland, media expenditure, international and domestic sponsorship and broadcasting fees. To protect confidentiality these “other” income sources have been aggregated and presented as a single figure.

In aggregate “other” income sources associated with the 2005 DHL Lions Series generated around **\$1.7m** of additional revenue for Auckland. These revenues would not have existed in the absence of the Lions Series.

3.3.3. Summary of Additional Revenue in Auckland

In aggregate the Lions Series generated additional revenue of **\$53.0m** in Auckland. This revenue would not have existed in the absence of the Lions Series. The largest revenue impact was generated by international package travellers (including VIPs) at \$27.9m, followed by international FIT travellers at \$19.4m and domestic travellers from outside Auckland at \$4.0m. The remaining revenue impact of \$1.7m came from combined team expenditure and media expenditure in Auckland and the revenues from sponsorship and broadcasting that accrued to organisations within the region.

Figure 32 Summary of Additional Revenue in Auckland (\$NZm excl. GST)



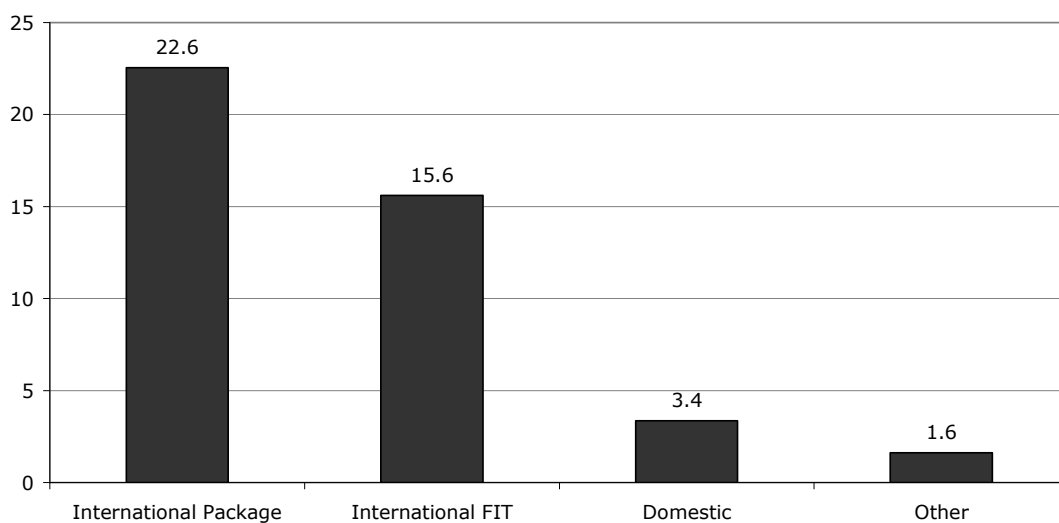
3.4. GDP and Employment Impacts

The **\$53.0m** of additional revenue identified in the previous section flowed through the Auckland economy and generated a total regional GDP impact of **\$43.2m** (including indirect and induced effects). This GDP would not have existed in the absence of the Lions Series. This is a very substantial impact given that most of the visitor activity occurred during a one week period in early July. Even more pleasing is the fact that it occurred during an off peak period when visitor activity is traditionally low.

To put the magnitude of this impact into perspective, the visitor impact generated by the Lions Series in Auckland (\$43.2m) is more than five times larger than the economic impact generated by the All Blacks vs. England test match at Eden Park in June 2004.

Around \$22.6m of the GDP impact was generated by international package travellers, \$15.6m by international FIT travellers, \$3.4m by domestic travellers from outside Auckland and \$1.6m from “other” income sources such as team and media expenditure in Auckland and the revenues from sponsorship and broadcasting that accrued to organisations within the region.

Figure 33 Summary of GDP Impacts in Auckland (\$NZm)

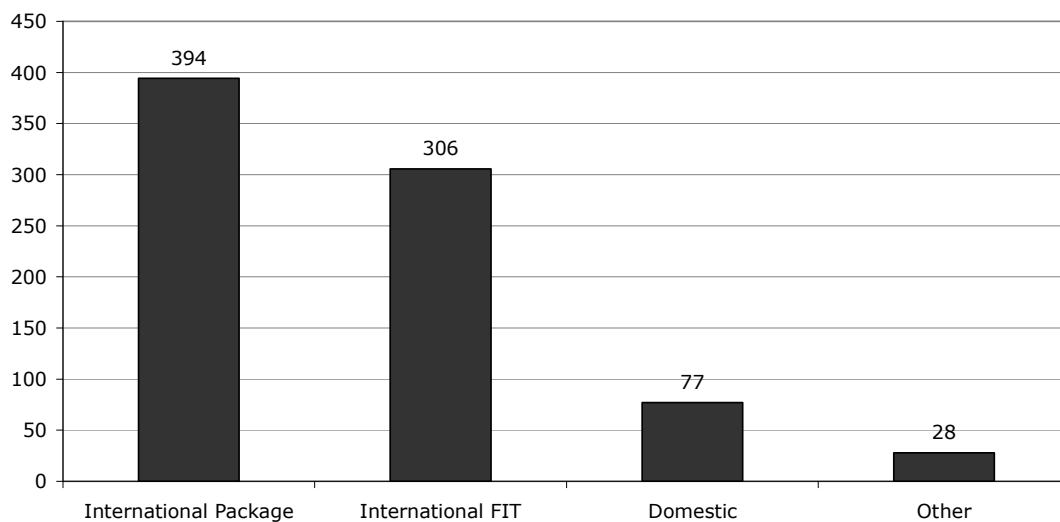


The additional **\$43.2m** of regional GDP generated by the Lions Series supported the equivalent of **805** full time employees for one year (including indirect and induced effects). This employment impact would not have existed in the absence of the Lions Series.

The additional activity generated by package travellers sustained the largest number of full time equivalents (FTEs) at 394, followed by FIT travellers at 306 FTEs, domestic travellers at 77 FTEs and “other” income sources at 28 FTEs.

By any measure these are very substantial impacts, particularly during a traditionally quiet part of the year and in such a short period of time.

Figure 34 Summary of Employment Impacts in Auckland (FTEs)



4. Impact on Dunedin

4.1. Introduction

The 2005 DHL Lions Series generated a large amount of international and domestic visitor activity throughout New Zealand, particularly in the towns and cities hosting Lions matches. While the focus of the national assessment was on the foreign exchange earnings generated by the Lions Series, the assessment for Dunedin includes domestic visitor impacts because money spent in Dunedin by domestic visitors (excluding Dunedin residents) legitimately increases GDP and employment levels in the region.

The additional activity generated by international and domestic travellers is first measured in terms of additional revenue in Dunedin, and subsequently converted to estimates of additional regional GDP and employment using regional multipliers. None of the identified impacts would have occurred in the absence of the Lions Series.

Dunedin hosted the fifth match in the Series – a match against Otago on the 18th of June. Carisbrook was filled to its capacity of 27,000 for the match with over two thirds of the spectators at the match coming from outside the Dunedin area. This section is concerned primarily with the activities of non-Dunedin residents who generate *additional* activity in the Dunedin economy, so the activities of Dunedin residents are excluded from this analysis.

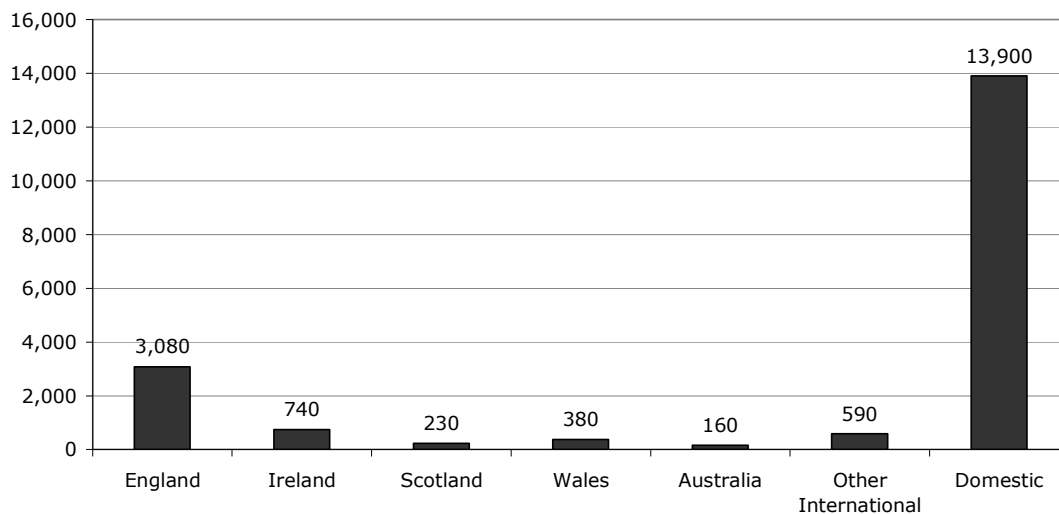
All references to Dunedin should be interpreted as *Dunedin City*, not the *Otago Region*.

Note: Regional impacts include impacts generated by domestic visitors from outside the region, whereas national impacts exclude impacts generated by domestic visitors. This means that the sum of the regional impacts will exceed the national impact, because the regional impacts include domestic impacts and the national impact does not. It is therefore invalid to express the total Dunedin impact as a percentage of the total national impact because they include different things.

4.2. Profile of Visitors to Dunedin

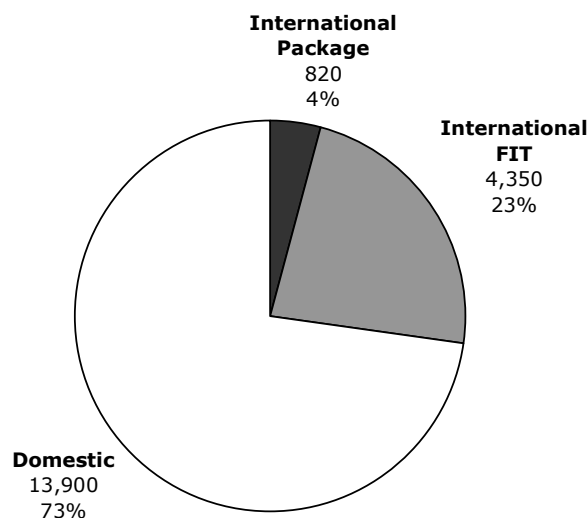
A total of 5,170 international travellers and 13,900 domestic travellers visited Dunedin as part of the 2005 DHL Lions Series (excluding Dunedin residents). These visitations would not have occurred in the absence of the Lions Series. The largest international contingent came from England (3,080), followed by Ireland (740), Wales (380), Scotland (230) and Australia (160). The remaining 590 international visitors came from other countries.

Figure 35 Visits to Dunedin by Origin



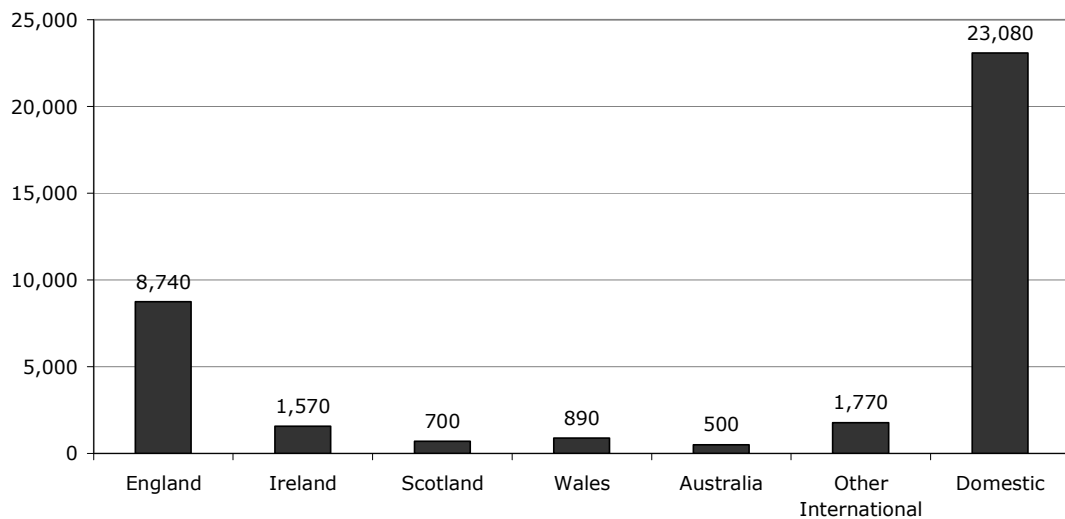
International package travellers accounted for 4% (820) of Lions related visits to Dunedin, international FIT travellers 23% (4,350) of visits and domestic travellers from outside Dunedin the remaining 73% (13,900) of visits.

Figure 36 Visits to Dunedin by Traveller Type



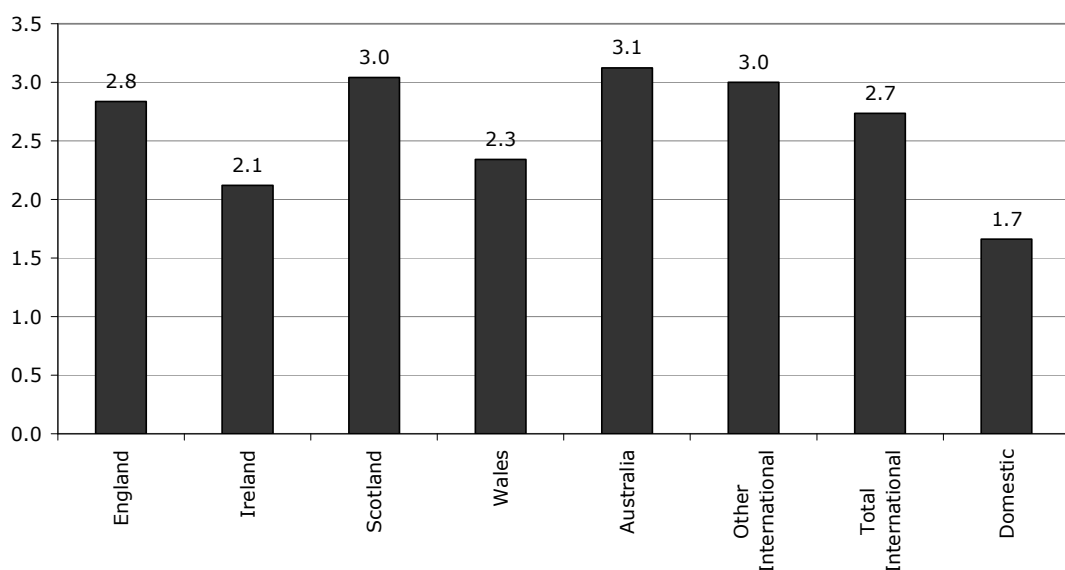
An additional **37,250** visitor nights in Dunedin can be attributed directly to the Lions Series. These nights would not have been spent in Dunedin in the absence of the Series. Domestic visitors spent a total of 23,080 nights in Dunedin, followed by visitors from England (8,740), visitors from Ireland (1,570), Wales (890), Scotland (700) and Australia (500). The remaining 1,770 nights were spent by visitors from other countries.

Figure 37 Visitor Nights in Dunedin by Origin



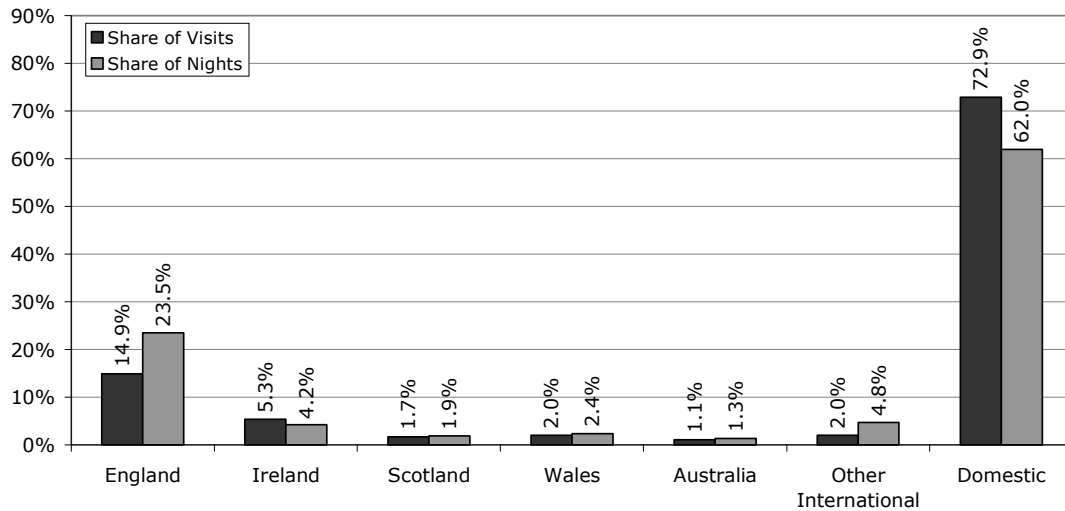
On average visitors from Australia stayed the longest in Dunedin (3.1 nights), followed by visitors from Scotland (3.0 nights), England (2.8 nights), Wales (2.3 nights) and Ireland (2.1 nights). Overall international visitors spent an average of 2.7 nights in Dunedin, while domestic visitors spent an average of 1.7 nights.

Figure 38 Average Length of Stay in Dunedin by Lions Visitors



In percentage terms domestic visitors accounted for the largest shares of Lions related visits and nights in Dunedin (72.9% and 62.0% respectively), followed by visitors from England (14.9% and 23.5%), visitors from Ireland (5.3% and 4.2%) and visitors from Wales (2.0% and 2.4%).

Figure 39 Shares of Visitor Arrivals and Nights in Dunedin



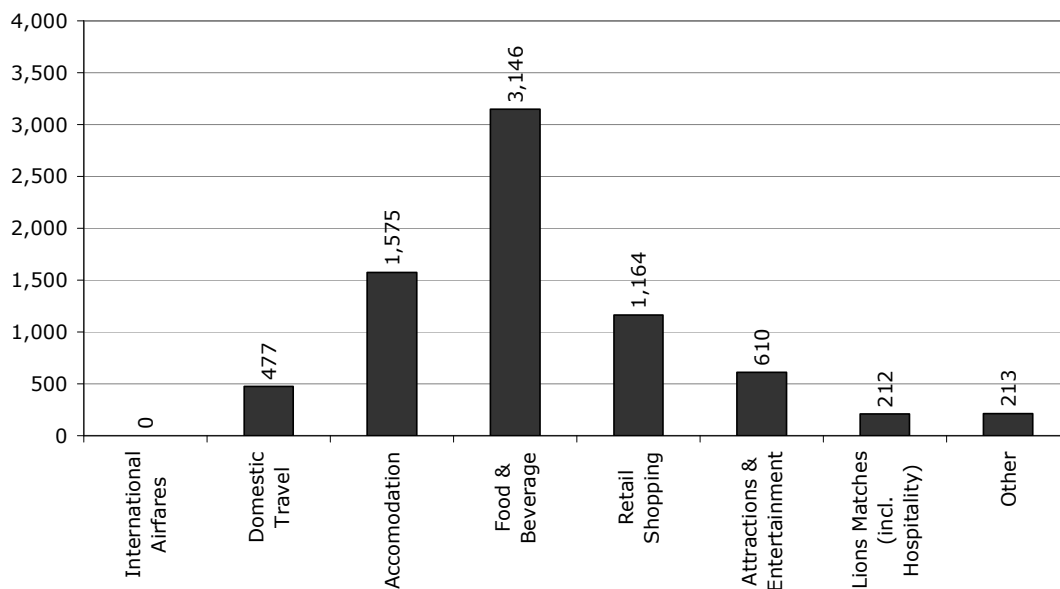
4.3. Additional Revenue in Dunedin

This section estimates the additional revenue generated by the 2005 DHL Lions Series in Dunedin. The impacts were generated by international and domestic visitors to Dunedin and also by international and domestic business transactions surrounding the Lions Series.

4.3.1. Visitor Impacts

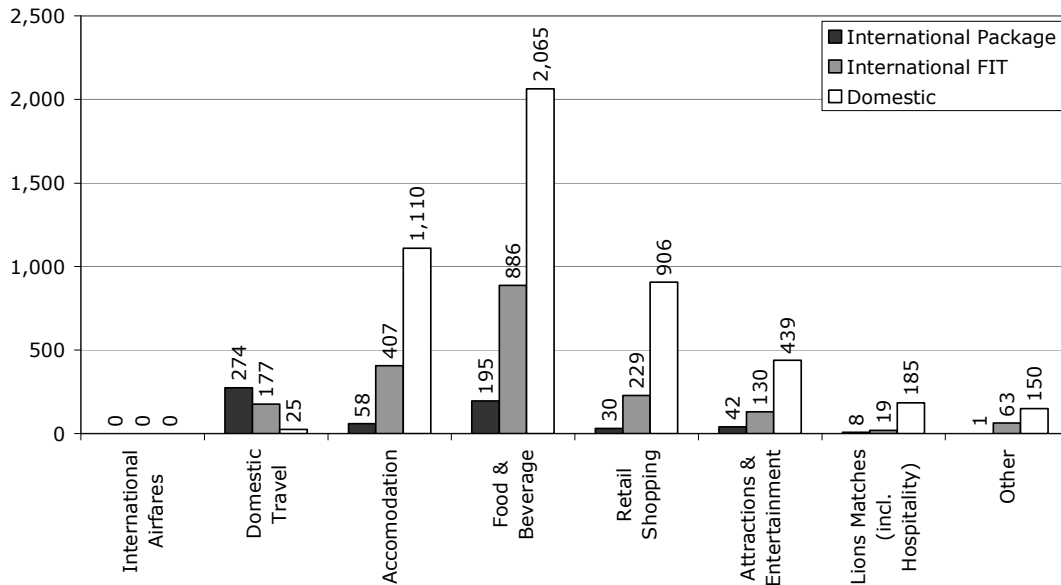
Expenditure by visitors generated additional revenue in Dunedin of **\$7.5m** (excluding GST). Food and beverage was the largest individual expenditure item at \$3.1m, followed by accommodation (\$1.6m), retail shopping (\$1.2m), attractions and entertainment (\$610,000) and domestic transport (\$477,000). The additional \$212,000 of revenue associated with the matches in Dunedin was derived from hospitality revenues, ground hire and the share of ticket sales accruing to Otago Rugby.

Figure 40 Additional Revenue in Dunedin by Expenditure Item (\$NZ'000s excl. GST)



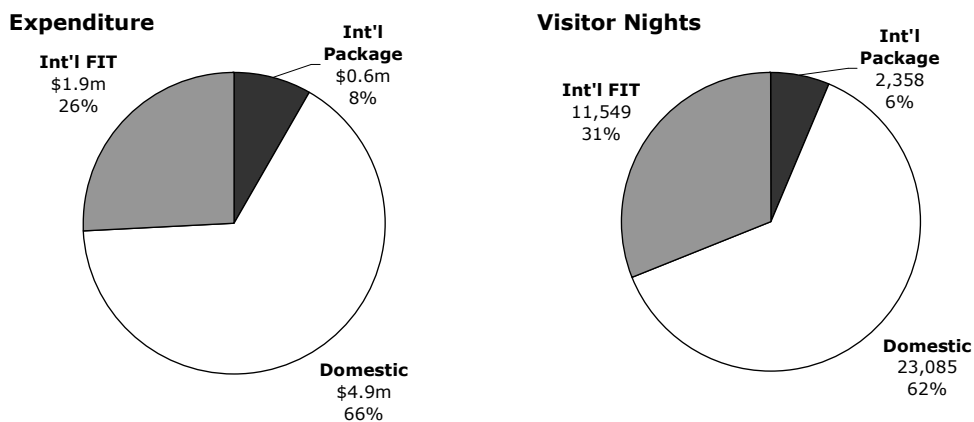
In aggregate domestic travellers spent the largest amount of money in Dunedin across all expenditure items except domestic travel. Overall domestic visitors spent more money in Dunedin than international visitors.

Figure 41 Additional Revenue in Dunedin by Item and Traveller Type (\$NZ'000s excl. GST)



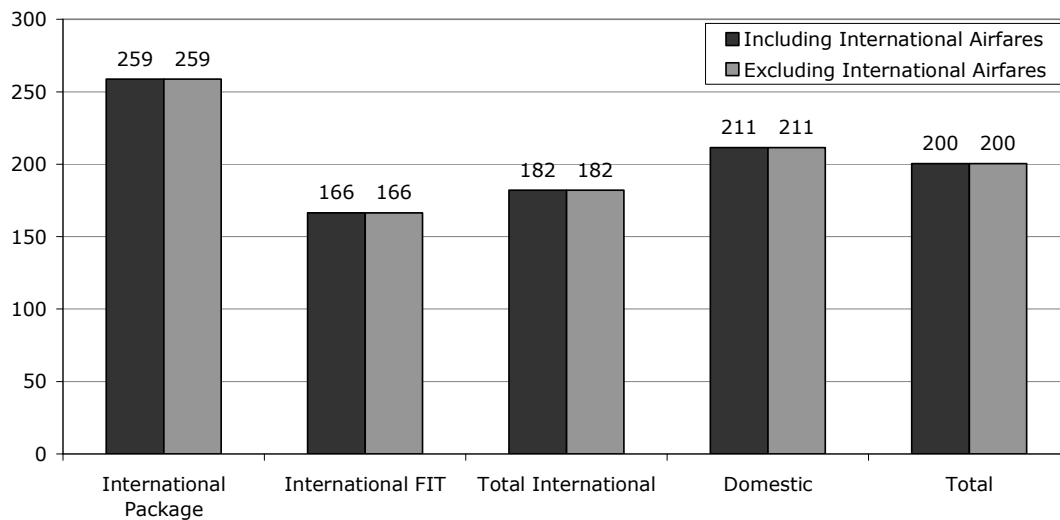
Domestic travellers accounted for 62% (23,085) of visitor nights in Dunedin and 66% (\$4.9m) of additional expenditure in the area. This confirms that domestic travellers spent more money in Dunedin per visitor night than international travellers. International FIT travellers generated almost one third (31%) of the visitor nights in Dunedin (11,549) and 26% (\$1.9m) of Lions-related expenditure, with international package travellers generating the remaining 6% (2,358) of visitor nights and 8% (\$0.6m) of expenditure.

Figure 42 Shares of Expenditure and Visitor Nights by Traveller Type



The average spend figures have been expressed inclusive and exclusive of international airfares even though Dunedin didn't capture any international air fare expenditure so that the results can be directly compared with those for Auckland and New Zealand. International package travellers spent an average of \$257 per night in Dunedin (excluding GST) and international FIT travellers spent an average of \$166 per night. Overall, international visitors spent an average of \$182 per night in Dunedin which is lower than the average spend by domestic travellers of \$211 per night.

Figure 43 Average Spend per Night in Dunedin (\$NZ excl. GST)



4.3.2. Other Impacts

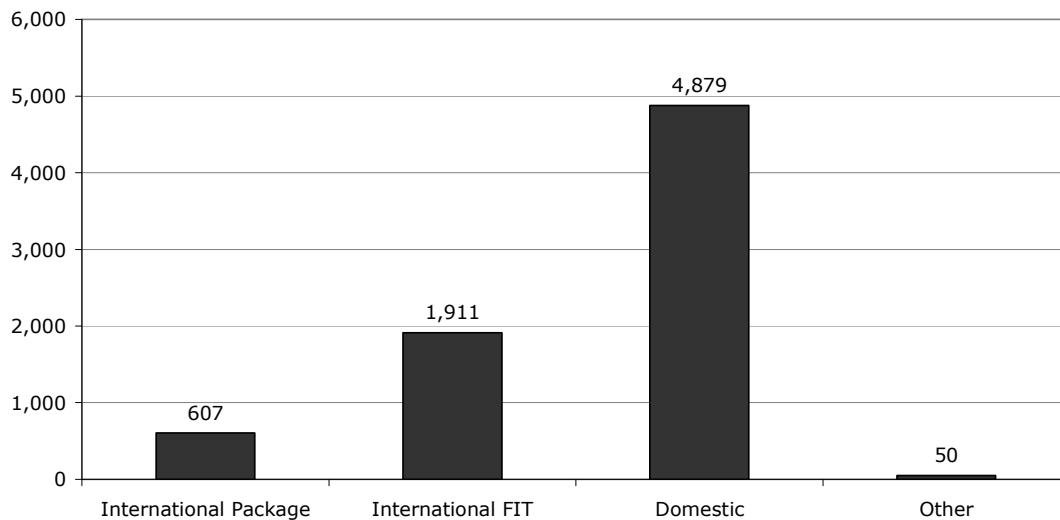
In addition to the visitor related revenue impacts there were some other minor revenue impacts associated with the Lions Series, including the expenditure of the Lions team in Dunedin, media expenditure, international and domestic sponsorship and broadcasting fees. To protect confidentiality these "other" income sources have been aggregated and presented as a single figure.

In aggregate "other" income sources associated with the 2005 DHL Lions Series generated around **\$50,000** of additional revenue for Dunedin. These revenues would not have existed in the absence of the Lions Series.

4.3.3. Summary of Additional Revenue in Dunedin

In aggregate the Lions Series generated additional revenue of **\$7.5m** in Dunedin. This revenue would not have existed in the absence of the Lions Series. The largest revenue impact was generated by domestic travellers at \$4.9m, followed by international FIT travellers at \$1.9m and international package travellers \$607,000. The remaining revenue impact of \$50,000 came from combined team expenditure and media expenditure in Dunedin and the revenues from sponsorship and broadcasting that accrued to organisations within the region.

Figure 44 Summary of Additional Revenue in Dunedin (\$NZ'000s excl. GST)



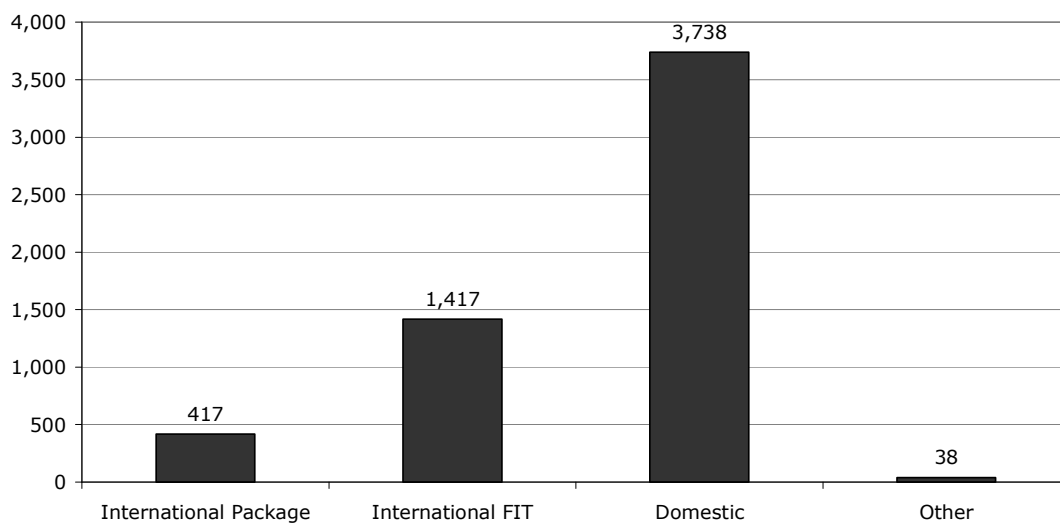
4.4. GDP and Employment Impacts

The \$7.5m of additional revenue identified in the previous section flowed through the Dunedin economy and generated a total regional GDP impact of \$5.6m (including indirect and induced effects). This GDP would not have existed in the absence of the Lions Series. This is a very substantial impact given that most of the visitor activity occurred during a three day period in mid June. Even more pleasing is the fact that it occurred during an off peak period when visitor activity is traditionally low.

To put the magnitude of this impact into perspective, the visitor impact generated by the Lions Series in Dunedin (\$5.6m) is similar in size to the economic impact generated by the All Blacks vs. England test match in Auckland in June 2004 (\$8.1m). This is an impressive result given that Carisbrook has a capacity of around 27,000 and Eden Park has a capacity of almost 50,000.

Around \$3.7m of the GDP impact was generated by domestic travellers, \$1.4m by international FIT travellers, \$417,000 by international package travellers and \$38,000 from “other” income sources such as team and media expenditure in Dunedin and the revenues from sponsorship and broadcasting that accrued to organisations within the area.

Figure 45 Summary of GDP Impacts in Dunedin (\$NZ'000s)

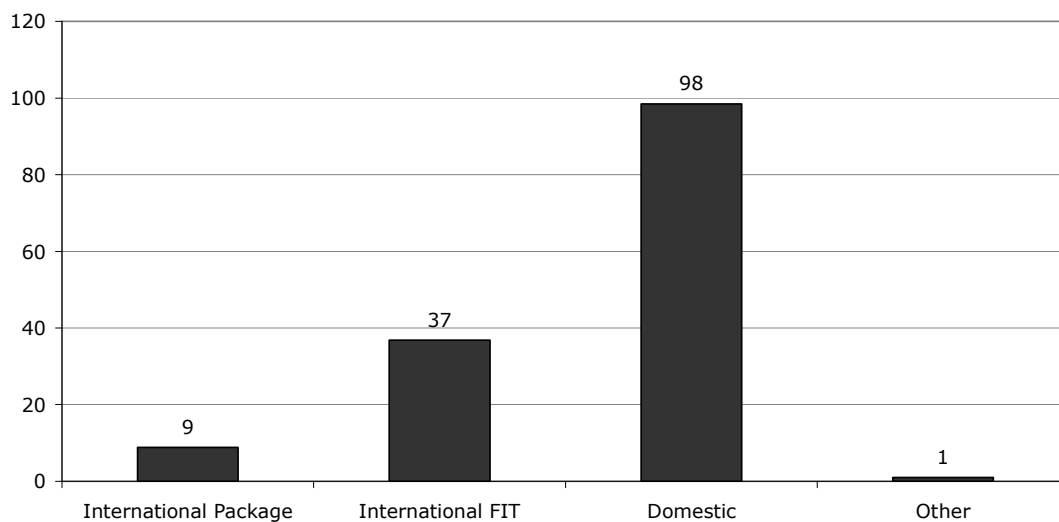


The additional **\$5.6m** of regional GDP generated by the Lions Series supported the equivalent of **145** full time employees for one year (including indirect and induced effects). This employment impact would not have existed in the absence of the Lions Series.

The additional activity generated by domestic travellers sustained the largest number of full time equivalents (FTEs) at 98, followed by international FIT travellers at 37 FTEs, international package travellers at 9 FTEs and “other” income sources at 1 FTEs.

By any measure these are very substantial impacts, particularly during a traditionally quiet part of the year and in such a short period of time.

Figure 46 Summary of Employment Impacts in Dunedin (FTEs)



Appendix 1: Measuring an Economic Impact

Definitions

An economic impact describes the *net addition* an event makes to an economy, and is generally measured in terms of *net contribution* to GDP and employment.

GDP is used to measure the size of an economy. There are several ways of measuring GDP, but the most common method is the *value added* approach. The value added approach is based on the premise that businesses purchase basic goods and services, add value to them and sell them. The value that each business adds through this process is the difference between the final selling price and the cost of the basic goods and services. This is broadly equivalent to the wages and salaries that the business pays plus its operating surplus, depreciation and tax.

GDP describes the total value that all businesses *add* to the economy in question.

Employment describes the labour units that support the creation of GDP. To overcome problems associated with part-timers, employment is generally measured in terms of *full-time equivalent employees* (FTEs). An FTE is equivalent to one full-time worker, or two part-time workers, where part-time is defined as less than 30 hours per week.

Employment describes the number of active full-time workers plus half the number of active part-time workers in the economy in question.

Components of an Economic Impact

The economic impact generated by an event comprises a **direct** impact, an **indirect** impact and an **induced** impact. These impacts are generated by the *additional* money that the event brings into the economy. As an example, suppose we want to assess the economic impact of hosting a convention for 1,000 Australians in Auckland at an all-inclusive cost of \$5,000 (excl. GST) per person. This would generate gross expenditure of \$5m in Auckland, all of which would be paid directly to the convention centre. In this case it is likely that the full \$5m is a net addition to the Auckland economy, because it is unlikely that this money would have been spent in Auckland in the absence of the convention.

The **direct** impact describes the value that is added to the economy as a result of the direct interaction between the convention delegates and the convention centre. Let's assume that the convention centre spends \$4m on the basic goods and services required to run the convention (excluding wages and salaries), in which case the direct impact of the convention on Auckland is \$1m.

In addition, the convention centre purchases the basic goods and services required to run the convention from other businesses in Auckland, which also add value to the economy when they produce and sell their goods and services. The purchases that the convention centre makes therefore generate a second round of impacts which would not exist in the absence of the convention. In reality the convention generates many subsequent rounds of impact within the economy because the convention centre's suppliers have to purchase additional goods and services from *their* suppliers to meet demand, and so on. These subsequent impacts are collectively referred to as the **indirect** impact because they are generated indirectly by the initial (direct) relationship between the delegates and the conference centre.

And finally, the **induced** impact describes the economic activity that is generated by the additional wages and salaries paid to employees of businesses impacted directly or indirectly by the convention. These impacts are generally realised through greater household expenditures on final goods and services.

Multiplier Analysis

It is clear from the description above that an economic impact analysis comprises a reasonably complex set of transactions and interactions. Fortunately economists have developed a relatively simple method of calculating the direct, indirect and induced impacts of an event called **multiplier analysis**. Multipliers are derived from input-output (IO) tables, which are mathematical representations of economies that model the relationships between producers and consumers and the interdependencies of industries. IO tables are used in economic impact analysis to estimate how a change in the activity level of one industry is likely to affect others.

In the example above we were interested in calculating the economic impact of a convention bringing \$5m of new money into Auckland. We already know that the **direct** impact of the convention is \$1m, because we know that the convention centre's costs (excluding wages and salaries) were \$4m. In the absence of this data we could have located the appropriate industry in the Auckland IO table and extracted the multiplier that tells us what proportion of gross revenue is likely to represent direct value added. If the industry we selected in the IO table accurately represents the convention centre then the direct value added multiplier would be 0.20, indicating that 20% (\$1m) of the gross expenditure of \$5m is value added.

The **indirect** and **induced** impacts can be derived in a similar way by sourcing the appropriate multipliers from the Auckland IO table and applying them to the gross expenditure of \$5m.