

ECONOMIC IMPACT ASSESSMENT  
for the filming of

# The Last Samurai

in TARANAKI

Commissioned by VENTURE TARANAKI  
in partnership with Investment New Zealand  
and New Zealand Trade and Enterprise

February 2004

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Venture Taranaki

Venture Taranaki is an  
initiative founded by the  
New Plymouth District  
Council

Investment  
NEW ZEALAND

New Zealand  
TRADE & ENTERPRISE



## **VENTURE TARANAKI TRUST**

As Taranaki's Regional Development Agency, Venture Taranaki provides a strategic and focussed approach to developing the local economy.

The Trust was initiated in 1998 by the New Plymouth District Council and reflects Taranaki's ability to achieve sustainable wealth creation through innovation and creation of partnerships.

World class and independent, Venture Taranaki 'signposts, informs and advises' facilitating business success from enterprise inception through to growth in the international marketplace.

The film sector has been identified by the Trust as a sunrise industry which, if further developed, could bring significant economic benefit to the region.

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## EXECUTIVE SUMMARY

The Last Samurai (TLS) is a \$170 million film project from the Warner Bros studios starring Tom Cruise and Billy Connolly.

A major proportion of the filming was undertaken over several months in Taranaki – a New Zealand region rich in natural beauty, but relatively undeveloped in film infrastructure.

Venture Taranaki (Taranaki's Regional Development Agency) together with the Government agencies of New Zealand Trade & Enterprise and Investment New Zealand, share a mutual interest in evaluating the economic impact of The Last Samurai on the regional and national economy.

### Objectives:

Specifically, the objectives of this evaluation have been to investigate and report on the following:

1. The 'actual' national and regional economic impact (multiplier effect) of TLS.
2. The 'potential' national and regional economic impact (multiplier effect) by:
  - (a) Any structural/regulatory factors that obstructed or hindered the production of TLS;
  - (b) Components of film production which potentially could have been sourced in New Zealand;
  - (c) The impact of these factors and estimated, based on certain assumptions, the possible or potential multiplier effect.
3. The tax revenues arising directly and indirectly from the film production (including withholding tax and GST).
4. The direct, indirect and intangible effects of the film – regionally and nationally.
5. Learning outcomes from The Last Samurai, which could assist future film policy, strategy and processes.

### Methodology

The methodology consisted of the development of an indicative budget for TLS, a multiplier analysis at the national and regional level, and interviews with key suppliers and businesses in the region. This was complemented by a survey of all businesses in the Taranaki region concerning the impact of the film.

BERL (Business and Economic Research Ltd) in Wellington was commissioned to undertake the economic impact analysis.

Specialist task groups, with skills and knowledge of the film industry, were also utilised to assist the analysis.

The tax revenues were determined based on the indicative budget and the subsequent multiplier analysis. BERL was assisted by IRD in quantifying the tax benefits.

## Findings:

### **Direct expenditure:**

The indicative budget process concluded that TLS spent approximately NZ\$85.5 million in New Zealand.

Of the total, an estimated NZ\$50 million, or 58 percent, was determined to have been spent directly in the Taranaki region.

<b>Industry</b>	<b>National Spend</b>	<b>Taranaki Spend</b>	<b>Taranaki%</b>
ancillary services to construction	\$3,830,000	\$3,830,000	100%
retail trade	\$5,450,000	\$2,930,000	54%
accommodation	\$10,000,000	\$10,000,000	100%
bars, clubs, cafes and restaurants	\$3,650,000	\$3,325,000	91%
road freight transport	\$450,000	\$337,500	75%
water and rail transport	\$450,000	\$45,000	10%
air transport, services to transport and storage	\$1,650,000	\$232,500	14%
communication services	\$1,550,000	\$265,000	17%
insurance	\$150,000	\$0	0%
property ownership and mgmt and real estate	\$9,591,000	\$9,591,000	100%
vehicle and equipment hire	\$5,825,000	\$4,128,000	71%
employment, security and investigative services	\$996,000	\$996,000	100%
motion picture, radio and TV services	\$40,324,000	\$12,946,000	32%
personal and other community services	\$1,522,000	\$1,218,000	80%
	<b>\$85,438,000</b>	<b>\$49,844,000</b>	<b>58%</b>

The key area of national expenditure was motion picture, radio and TV services.

Thirteen of the fourteen industry groupings in Taranaki received at least some direct expenditure from the production. This demonstrates the breadth of the spending pattern resulting from a project such as this, and the positive economic flows to a regional community.

Key industry spends captured entirely within the region included: ancillary services to construction; accommodation; property ownership, management and real estate; and employment, security and investigative services.

### **Multipliers and flow-on impacts**

While there was an estimated expenditure of around \$85 million to the national economy, the actual output generated from the expenditure was greater once the flow-on activity was taken into account. This flow-on occurs when businesses purchase materials and services from supplier firms, who in turn make further purchases from their suppliers, or when people either employed directly or in firms supplying services to the film earn income which is then spent on consumption.

Applying the multipliers to the estimated spend determined in the indicative budget results in the following direct, indirect and induced effects:

**National:**

<b>Multiplier Effect (National)</b>	<b>Injection (Direct)</b>	<b>Type I<sub>b</sub>: Direct + Indirect</b>	<b>Type II: Direct + Indirect + Induced</b>
Output (\$m)	\$85.4	\$145.2	\$195.7
Value Added (\$m)	\$39.0	\$67.0	\$91.7
Employment (FTEs)	681.7	1,069.7	1,403.3

TLS had a gross output effect of NZ\$195.7 million, added NZ\$91.7 million to GDP and employed 1,403 FTEs over a 12 month equivalent period (over 680 of those FTE's being direct impacts).

Key employment gains flowed from the motion picture, radio and TV services, which was responsible for around 530 jobs. The accommodation industry experienced an extra 260 jobs and retail trade benefited by 134 jobs. Least affected were insurance with two jobs and water and rail transport with 4.84 jobs.

**Taranaki**

<b>Multiplier Effect (Taranaki)</b>	<b>Injection (Direct)</b>	<b>Type I<sub>b</sub>: Direct + Indirect</b>	<b>Type II: Direct + Indirect + Induced</b>
Output (\$m)	\$49.8	\$61.6	\$69.1
Value Added (\$m)	\$23.8	\$29.2	\$33.4
Employment (FTEs)	483.9	564.6	615.6

In the Taranaki region, the impact was NZ\$69.1 million in gross output, NZ\$33.4 million in GDP, and an additional 616 jobs (484 of those FTE jobs being direct impacts).

Employment gains at the Taranaki region level came from the accommodation industry (197 jobs) and the motion picture radio and TV services (93 jobs) and property ownership and management and real estate (71.84).

**Taxation benefits:**

The report also addressed the potential tax benefits from The Last Samurai production – including both direct tax of the production spend and the estimated tax from the flow-on impact of the film.

	Direct Taxation (\$m)	Indirect Taxation (\$m)	Induced Taxation (\$m)	Total Tax Benefit (\$m)
Company Tax	1.4 - 2.8	2.6	2.3	6.3 - 7.7
Income Tax	3.4 -5.1	3.3	2.9	9.6 -11.3
GST	0 - 0.5	0	6.3	6.3 - 6.8
<b>Total Tax Benefit</b>	<b>4.8 - 8.4</b>	<b>5.9</b>	<b>11.5</b>	<b>22.2 - 25.8</b>

The investigation concluded that the total tax benefit was estimated in the range of NZ\$22.2 million to NZ\$25.8 million.

This comprised:

- *direct taxation of between NZ\$4.8 and NZ\$8.4 million;*
- *indirect taxation of around NZ\$5.9 million; and*
- *induced taxation accounting for NZ\$11.5 million.*

**Other benefits from The Last Samurai**

TLS generated a broad range of benefits to Taranaki and New Zealand in addition to the economic and employment gains.

Some of these are summarised below:

- *businesses experienced increases in turnover ranging from 40% to 800%. It was used to retire debt, reduce gearing, provide more comfort in their operating balances, expand business operations including recruiting more full time equivalents and/or implement projects well ahead of schedule.*
- *businesses adopted systems and processes to meet the demands of the film company and their timeframes. They established new contacts to assist them in developing new markets overseas, and/or other opportunities in the film industry. Capability was thus further fostered.*
- *inspired by the film clients, many businesses focused on new strategies to maximise the opportunity and in so doing, enhanced their service levels.*
- *TLS generated a lot of media attention for Taranaki – thus raising the profile of the region as a tourist and business destination, nationally and internationally.*
- *the film provided a buzz throughout the region. Optimism was boosted.*
- *there was an outpouring of support from businesses within the region and they worked together to ensure that the production went smoothly. The council responded positively with a “can do” attitude to ensure a smooth process for the film locations.*
- *the “Hollywood experience” has and will help Taranaki diversify its traditional industrial base. The region has demonstrated that it has the infrastructure, capability and the environment to handle large film productions.*
- *TLS will provide downstream opportunities associated with this film, and the region now has a proven track record to encourage further film and TV production to the region.*

### ***What can we learn from The Last Samurai experience?***

There are clear lessons to be learnt from this study and they should provide useful input for future regional and national strategies concerning capturing, retaining and extending the financial and economic benefits of international film projects in New Zealand.

Some of these include the following:

- *film can make a positive contribution to the regional and national economy. In order to maximise such gains, marketing, training, education, public relations strategies, facilitation, coordination, as well as film-friendly policies are possible areas which could be reviewed in light of TLS experience.*
- *to reduce economic leakage, New Zealand must continue to promote its film capabilities abroad.*
- *policies such as tax and immigration could also be reviewed in light of their user-friendliness to film, and their potential to maximise economic benefits to New Zealand.*
- *there are advantages to New Zealand tourism with respect to leveraging off our film location and exposure.*
- *New Zealand must focus on being “competitive” as a film location as opposed to being “cheap”. The country needs to identify where it does things better than other industry locations. With respect to TLS, New Zealand topography as well as flora and ease of shooting were all important factors in location choice.*
- *prioritising a media strategy early in the process offers advantages to both New Zealand and the international film company. Film attracts considerable interest in New Zealand, and media reports are picked up globally.*
- *establishing film-friendly systems and protocols is an advantage to both local regional and the film production company.*
- *a national film champion, (available to film production companies 24/7), with a clear mandate to resolve any barriers and ensure a smooth process, would enhance NZ’s film-friendly image, and provide greater clarity and coordination concerning what New Zealand can deliver.*



*Charlie Harrington, Location Manager, The Last Samurai*

The Last Samurai (TLS) is a \$170 million film project by Warner Bros starring Tom Cruise and Billy Connolly. A major proportion of the filming was done over several months in Taranaki during 2003.

Venture Taranaki's (VT) interest in diversifying its economic base, and New Zealand Trade and Enterprise and Investment New Zealand (the sponsors) interests in encouraging economic development have led to this report to measure the economic impact of TLS on the regional and national economy.

The objectives are to investigate and report on the following:

1. the 'actual' national and regional economic impact (multiplier effect) of TLS.
2. the 'potential' national and regional economic impact (multiplier effect) by:
  - (a) any structural/regulatory factors that obstructed or hindered the production of TLS;
  - (b) components of film production which potentially could have been sourced in New Zealand;
  - (c) the impact of these factors and estimated, based on certain assumptions, the possible or potential multiplier effect.
3. the tax revenues arising directly and indirectly from the film production (including withholding tax and GST).
4. the direct, indirect and intangible effects of the film – regionally and nationally.
5. learning outcomes from The Last Samurai, which could assist future film policy, strategy and processes.

The methodology consisted of the development of an indicative budget, a multiplier analysis at the national and regional level, and interviews with key suppliers and businesses in the region. This was complemented by a survey of all businesses in the Taranaki region on the impact of the film, which was undertaken by VT.

BERL (Business and Economic Research Ltd) was commissioned to undertake the economic impact analysis.

Specialist task groups, with skills and knowledge of the film industry, were also utilised to assist the analysis.

The tax revenues were determined based on the indicative budget and the subsequent multiplier analysis. BERL was assisted by IRD in quantifying the tax benefits.

BERL is confident the report is based on sound quantitative data and mathematical techniques, supplemented by a robust interview and survey process.

The outcome is a report that contains:

- *an indicative production budget that approximates TLS spend (specific to TLS but can be applied to future feature film projects);*

- *an economic impact model identifying the multiplier effects of TLS;*
- *identification of the direct, indirect and induced benefits of TLS;*
- *barriers and opportunities related to TLS.*
- *strategic implications for future film policy.*

The report is broken down into ten sections starting with this introduction. Section 2 of the report presents the methodology and approach undertaken to develop the indicative budget, the survey, the interviews and the multiplier analysis. The following sections then present, in order, the indicative budget; the multiplier analysis, including the direct, indirect and intangible benefits; tax benefit, the barriers and negative impacts; the opportunities; the merits of film, strategic implications for future film policy and then the conclusions.

Appendices follow which provide a description of industry groupings used in the multiplier analysis; the list of interview participants; the multiplier coefficients used broken down by industry and effect; and an explanation of multipliers.

It also includes the Taranaki Business Survey form. A full report on the survey analysis may be obtained from [www.taranaki.info](http://www.taranaki.info).



The methodology consisted of generating a reasonably detailed 'indicative budget' of the expenditure on the film, and then estimating the multipliers of that spend on the film at regional and national levels. To provide a cross-check on the level and composition of this spend, and to add detail, interviews were held with key businesses, and a survey was undertaken across all businesses in the region.

### 2.1 Indicative budget

To enable a multiplier analysis of the effects of the production, it was necessary to determine its expenditure. As it was not possible to get the exact figures from the production company due to privacy/commercial concerns, Venture Taranaki decided to develop an indicative budget that provided a fairly close approximation of what would have been spent by the production in New Zealand.\*

To put together the indicative budget, (VT) and BERL assembled a group of individuals that had:

- *expertise in film production and film budgeting in New Zealand;*
- *close liaisons with TLS Film;*
- *close liaisons with the suppliers to the film; and*
- *multiplier analysis expertise.*

The team consisted of Keith Mackenzie, Peter Avery, Tim Coddington and Kel Sanderson.

Keith Mackenzie is a New Zealand based film production consultant. Since 2000, Keith has prepared budgets for over 10 films for various studios/production companies. Recently he has been a financial consultant for a feature film shot in Auckland in 2003 and on a live international show touring in 2004.

From 1993 to 2001, Keith worked on the Hercules/Xena TV drama series where he commenced as a production accountant before progressing to production controller and then production supervisor. The company produced over 300 hours of TV drama in that period. From 1983-1993, Keith worked as a freelance production accountant on 20 feature films.

Peter Avery joined Venture Taranaki in 2001 to set up Film Venture Taranaki, the regional film office. He has just finished 12 months work facilitating the filming of The Last Samurai and is also active within Film New Zealand. He also worked closely with several of the suppliers to the film project.

Peter has been involved in the creative industries since graduating with a Diploma in Visual Communication in 1973. That career has seen employment as an advertising creative director, working on multi-national accounts until 1980 when he joined the film industry, initially in Australia as an art director and then in 1983 as a film director specialising in TV commercials. Peter has operated several companies in Auckland and Wellington and has worked in England, Australia, Canada, the United States and Malaysia. He has received numerous international awards for his work.

Tim Coddington has an enviable reputation for his depth of experience in 20 years of production on incoming feature films, series and television commercials.

\* Warner Bros did not provide any core data or verification of estimates for the indicative budget. The report is conservative in its budget estimation.

He has worked with many big names overseas and his local credits include being unit production manager on *Vertical Limit*, line producer on *Knight of the Sea*, and producer on *Maiden Voyage*.

His experience working with international productions and running his own successful commercial productions company give him a unique insight into the demands and needs of these large scale projects both in terms of the filming requirements and their business operations.

He was educated and grew up in heartland New Zealand and lives on a small farm with his family in Kumeu near Auckland.

Kel Sanderson is a director and chief economist with BERL and has undertaken several economic impact assessments for a variety of projects. His role was to ensure that the information collected was accurate and appropriate, and able to be analysed using multipliers.

The team put together an indicative budget based upon their understanding of what a production of this magnitude would have cost. These figures were then triangulated where possible with figures available in the public domain and discussions with key suppliers.

## **2.2 Multiplier analysis**

A multiplier analysis was undertaken using multipliers derived from inter-industry input-output tables for the Taranaki region, and for New Zealand. The Taranaki regional input-output tables have been derived from the national input-output tables and other data by Butcher Partners, Canterbury - a recognised source for regional input-output tables and multipliers.

Determining the actual multiplier to apply to film is an issue that economists grapple with. In other studies, multipliers have ranged from 1.9 through to 3.6<sup>1</sup>. The gross output multipliers for motion picture, radio and TV services is 2.55 for New Zealand and 1.33 for the Taranaki region.

However, as New Zealand is a fairly small economy, and the film industry is a small but growing component of that economy, using a single multiplier would not accurately represent the economic activity that takes place in a large production such as *TLS*. This is even more so when considered at a regional level. The approach taken in this study was to break the expenditure down into its components and then apply the multipliers from the industry that these components were most likely to impact upon. Hence the multiplier becomes an average of the various multipliers from the industries that were affected.

## **2.3 Interviews**

Interviews of key businesses involved in the production were undertaken to:

- *qualify and quantify the indicative budget and the multiplier analysis;*
- *identify intangible benefits to the business and to the region; and*
- *identify barriers and opportunities to leverage/improve outcomes.*

18 interviews were held over three days with businesses. These were selected based on their level of involvement and their industry. Each interview lasted around one hour and consisted of specific questions around the benefit to their business and open-ended questions on the benefits to the region, opportunities and barriers.

1 - For a good discussion of multipliers refer to the text box titled A Multiple of Multipliers on p23 of US runaway film and television production study report.

## 2.4 Survey

A mail survey was undertaken covering all businesses in the Taranaki region. The objective of the survey was to identify and measure the key flow-on benefits Taranaki gained as a result of the film company coming to the region. Over 4,000 surveys were distributed by mail drop to all Taranaki based businesses, households utilised as rental properties for the film company and residential households in the Urenui area. A prize was offered along with advertising in the local paper to encourage a good response.

## 2.5 Tax

The tax benefits of the TLS production were estimated. BERL was assisted by IRD to identify the methods and areas where tax could have been collected as well as ensure that the hypothetical calculations and approach were feasible. Numbers used for determining the tax benefits were generated from the indicative budget and multiplier analysis.

This review only included tax generated from below the line expenditure and so does not include expenditure on stars and key production staff.

## 2.6 Strategic review

On October 6, 2003 Venture Taranaki (VT), New Zealand Trade & Enterprise (NZTE) and Investment New Zealand (INZ) [who together commissioned Business and Economic Research Limited (BERL) to undertake an economic impact study around the filming of *The Last Samurai* in New Zealand] called together a meeting of representatives from the broader film industry in order to draw lessons and learn from this particular major international film project.

The meeting was attended by:

The Economic Impact Study Project team comprising of: Cheryl Sotheran from NZTE, Stuart Trundle, Anne Probert and Peter Avery from VT, Warren Mar from INZ, and Kel Sanderson and Jason Leung-Wai from BERL.

The Industry group comprising of: David Kelly from Inland Revenue, Anthony Turrick from Tourism NZ, and Sue Thompson, Louise Baker and Suan Ord from Film New Zealand.

Input was also provided by Keith Mackenzie.



*Peter Avery, Film Commissioner, Film Venture Taranaki*

## 3 Indicative budget of film expenditure

An indicative budget of film expenditure was estimated by an experienced team. This budget was sufficiently detailed to allow the spending on each item to be allocated to an industry so that economic impact multipliers could be estimated.

### 3.1 Indicative budget process

The indicative budget was developed based upon:

- *existing and available information including some base-line information on the activities of the film production team, and figures released to the media by the production company;*
- *discussions with key suppliers to the film; and*
- *the expert panel's understanding of the various costs involved in a production of that magnitude.*

The Panel held an initial meeting to discuss the key areas and level of detail required in the budget. It was decided that the budget would only include below the line (or production) costs and hence does not include stars/directors/producers/ writer's fees, travel and living costs<sup>2</sup>. Nor does it include below the line expenditure outside New Zealand<sup>3</sup>.

Where actual figures were known, these were included. Where they were not known they were estimated based upon best knowledge. This underwent several iterations until all members of the Panel were comfortable with the results.

The Panel then identified the proportion of materials and labour that was sourced from Taranaki to determine the regional spend<sup>4</sup>.

BERL/VT then conducted interviews with 18 businesses in the Taranaki region to get some comfort around the budget figures, particularly the regional spend. This included determining their level of activity as well as getting their perspective on the level of participation of their particular industry. Several of the figures were amended based upon those discussions, particularly around accommodation and construction of access roads. It was also determined that the proportion of catering attributed by the Panel to the Taranaki region was too low.

A survey has also gone to all businesses in the Taranaki region to determine the impact of the Film on their businesses. These results will be compared with the budget figures to ensure that the budget is reasonably accurate.

### 3.2 Detailed production budget

The production budget was detailed at a level to allow a fairly robust multiplier analysis to be undertaken. As such, the multiplier analysis is not simply a final figure plugged into the motion picture, radio and TV services industry multipliers. The detail allows BERL to allocate the budget spend to 14 different industry groups, which provides a more realistic and accurate multiplier analysis to be undertaken.

After incorporating information based upon the interviews, the budget was presented to the Panel who agreed that it was a realistic description of the approximate costs of the project in New Zealand. Similarly, the expert panel agreed that items were allocated to the appropriate industry group.

2 - Not only was this too difficult to estimate, above the line costs would mostly have occurred offshore and not impacted greatly on the New Zealand economy.

3 - Although determining the overseas spend would provide interesting information with which to determine areas where New Zealand could have captured more of the film expenditure.

4 - The Panel erred on the conservative side in their estimations. This is accentuated when you consider that a large budget film such as TLS is not likely to cut corners on expenditure.

### 3.2.1 Indicative budget

The indicative budget breaks the costs down into 35 specific items grouped into 11 sub-categories. Each of the items is attributed to the industry group<sup>5</sup> that most closely resembles the actual activity that took place. For example, all rentals are placed under vehicle and equipment hire.

Some items have been split further to more accurately represent the activity. For example, shipping freight and courier costs have been split across four different industry groups to better represent the industries that were impacted upon. Per Diems have been split across the two industry groups (retail trade and bars, clubs, cafes and restaurants) that best represented where the spend was most likely to occur. A total of 14 industry groups were determined.

Indicative Budget for The Last Samurai				
Item	Industry Group	National Spend \$NZ	Taranaki Spend	Taranaki %
<b>Production</b>	<b>NZ\$12,250,000*</b>			
Crew Fees	108 motion picture, radio and TV services	\$10,000,000.00	\$1,500,000.00	15%
Production Office	81 property ownership and mgmt and real estate	\$240,000.00	\$240,000.00	100%
Office rentals	83 vehicle and equipment hire	\$760,000.00	\$760,000.00	100%
Insurance	79 insurance	\$150,000.00	\$0.00	0%
Telecommunications	77 communications services	\$1,100,000.00	\$220,000.00	20%
<b>EXTRA TALENT</b>	<b>\$1,200,000.00*</b>			
Actors and extras	108 motion picture, radio and TV service	\$1,200,000.00	\$240,000.00	20
<b>SETS</b>	<b>\$19,124,000.00*</b>			
Set design	108 motion picture, radio and TV services	\$2,610,000.00	\$261,000.00	10%
Set construction	108 motion picture, radio and TV services	\$9,270,000.00	\$7,079,000.00	76%
Set dressing	108 motion picture, radio and TV services	\$1,340,000.00	\$613,000.00	46%
Greens	108 motion picture, radio and TV services	\$704,000.00	\$359,000.00	51%
Props	108 motion picture, radio and TV services	\$5,200,000.00	\$2,174,000.00	42%
<b>WARDROBE</b>	<b>\$10,000,000.00*</b>			
Costume design/manufacture	108 motion picture, radio and TV services	\$3,300,000.00	\$330,000.00	10%
Materials/hire/facilities	70 retail trade	\$2,800,000.00	\$280,000.00	10%
On-set labour	108 motion picture, radio and TV services	\$3,900,000.00	\$390,000.00	10%
<b>LOCATION</b>	<b>\$8,302,000.00*</b>			
Fees	81 property ownership and mgmt and real estate	\$2,146,000.00	\$2,146,000.00	100%
Access	68 ancillary services to construction	\$3,000,000.00	\$3,000,000.00	100%
Security	91 employment, security and investigative services	\$996,000.00	\$996,000.00	100%
Labour	68 ancillary services to construction	\$830,000.00	\$830,000.00	100%
Equipment hires	83 vehicle and equipment hire	\$830,000.00	\$830,000.00	100%
Craft catering	72 bars, clubs, cafes and restaurants	\$500,000.00	\$450,000.00	90%
<b>EQUIPMENT</b>	<b>\$1,050,000.00*</b>			
Lighting and camera rentals	83 vehicle and equipment hire	\$1,050,000.00	\$21,000.00	2%
<b>PICTURE VEHICLES</b>	<b>\$270,000.00*</b>			
Specialty vehicles	83 vehicle and equipment hire	\$270,000.00	\$270,000.00	100%
<b>FILM Services</b>	<b>\$2,800,000.00*</b>			
Film and film services	108 motion picture, radio and TV services	\$2,800,000.00	\$0.00	0%
<b>ANIMALS</b>	<b>\$1,522,000.00*</b>			
Animals	113 personal and other community services	\$1,522,000.00	\$1,218,000.00	80%
<b>ACCOMODATION &amp; LIVING</b>	<b>\$22,405,000.00*</b>			
Accommodation – rentals	81 property ownership and mgmt and real estate	\$7,205,000.00	\$7,205,000.00	100%
Accommodation – hotels/motels	71 accomodation	\$10,000,000.00	\$10,000,000.00	100%
Catering	72 bars, clubs, cafes and restaurants	\$1,100,000.00	\$825,000.00	75%
Per diems (1)	70 retail trade	\$2,050,000.00	\$2,050,000.00	100%
Per diems (2)	72 bars, clubs, cafes and restaurants	\$2,050,000.00	\$2,050,000.00	100%
<b>TRANSPORTATION</b>	<b>\$4,715,000.00*</b>			
Passenger vehicles	83 vehicles and equipment hire	\$1,925,000.00	\$1,925,000.00	100%
Heavy vehicles	83 vehicle and equipment hire	\$120,000.00	\$12,000.00	10%
Helicopter	83 vehicle and equipment hire	\$870,000.00	\$310,000.00	36%
Maintenance & running costs	70 retail trade	\$600,000.00	\$600,000.00	100%
Air travel	76 air transport, services to stransport and storage	\$1,200,000.00	\$120,000.00	10%
<b>SHIPPING/FREIGHT/COURIERS</b>	<b>\$1,800,000.00*</b>			
Shipping/freight/couriers	77 communications services	\$450,000.00	45,000.00	10%
	73 road freight transport	\$450,000.00	\$337,500.00	75%
	75 water and rail transport	\$450,000.00	\$45,000.00	10%
	76 air transport, services to transport and storage	\$450,000.00	\$112,500.00	25%
<b>TOTALS</b>		<b>\$85,438,000.00</b>	<b>\$49,844,000.00</b>	<b>58%</b>

5 - Industry groupings are based on the Australia and New Zealand Industrial Classifications index.

\* - Total National Spend by Industry Group

The national spend column is the total spend on each of the items within New Zealand. It does not include costs of imported goods and services. For example, several large lighting units were brought in from Australia (they are not available in New Zealand) and so the estimated lighting costs shown in the budget are half the estimated actual lighting costs for the production in New Zealand. The national spend includes the Taranaki spend.

The Taranaki column is the spend that occurred directly within the Taranaki region. The Taranaki percent column represents the proportion of the national spend for each item that was spent directly in the Taranaki region.

### **3.2.2 Total spend in New Zealand and Taranaki**

The panel concluded that TLS spent approximately NZ\$85.5 million in New Zealand. This is consistent with reports of a local (New Zealand) spend of around NZ\$80 million. Of the total New Zealand spend around NZ\$50 million, or 58 percent, was determined to have been spent directly in the Taranaki region.

The biggest sub category was accommodation and living (NZ\$22.4 million) and the largest item spend was accommodation – hotels/motels and crew fees (both at NZ\$10 million).

### **3.2.3 The Taranaki spend**

The Taranaki spend is the estimate of direct expenditure in the Taranaki region. Obviously the accommodation and rental were entirely spent in the Taranaki region and so there is a 100 percent Taranaki spend. Film and laboratory were done in either Wellington or the United States and so the Taranaki proportion of that spend is zero percent.

The panel tried as much as possible to ensure that expenditure was apportioned accurately between Taranaki and the rest of the country. Where possible, labour and materials costs were split. For example in set construction, the materials/labour split for set construction was approximately 60/40. However, 95 percent of materials were sourced in Taranaki whereas 50 percent of the labour content were specialists from outside Taranaki. Therefore the Taranaki proportion of set construction is around 76 percent<sup>6</sup>.

Most of the materials used in production were sourced in Taranaki, whereas labour varied depending on the level of expertise/specialisation required. For example, most of the wardrobe department were from Auckland which is represented by the low Taranaki proportion (10 percent) there. Other areas, such as roading access were done solely using Taranaki contractors.

The majority of TLS' spending was on accommodation and living (NZ\$22.4m), which was almost all captured in the Taranaki region. This was followed by sets (NZ\$19.124m), production (NZ\$12.25m) and location (NZ\$8.302m). The highest proportion of capture by the Taranaki region was in accommodation and living, and location. Areas with high movie specialisation content such as equipment, sets and film and laboratory, were mostly imported and so had less or no impact on the Taranaki region.

## **3.3 Spending by industry groups**

The spend identified in the indicative budget was allocated to the industry group that best represented the expenditure with 14 industry groups emerging. The following table aggregates the spending made at the 35 item level from the indicative budget to the 14 industry groups.

6 - Note that rounding was undertaken at the end of the process.

The items that make up each of the industry groups can be determined from the 'industry group' column in the indicative budget.

Of the 14 industry groups which received some spend from the film, eleven received a spend of at least NZ\$1 million. The majority of spending (NZ\$40.324 million) was in the motion picture, radio and TV services industry. The next highest was accommodation (NZ\$10 million) followed by property ownership and management and real estate (NZ\$9.591 million).

<b>Industry</b>	<b>National Spend</b>	<b>Taranaki Spend</b>	<b>Taranaki %</b>
Ancillary services to construction	\$3,830,000	\$3,830,000	100%
Retail trade	\$5,450,000	\$2,930,000	54%
Accommodation	\$10,000,000	\$10,000,000	100%
Bars, clubs, cafes and restaurants	\$3,650,000	\$3,325,000	91%
Road freight transport	\$450,000	\$337,500	75%
Water and rail transport	\$450,000	\$45,000	10%
Air transport, services to transport & storage	\$1,650,000	\$232,500	14%
Communication services	\$1,550,000	\$265,000	17%
Insurance	\$150,000	\$0	0%
Property ownership & mgmt & real estate	\$9,591,000	\$9,591,000	100%
Vehicle and equipment hire	\$5,825,000	\$4,128,000	71%
Employment, security & investigative services	\$996,000	\$996,000	100%
Motion picture, radio and TV services	\$40,324,000	\$12,946,000	32%
Personal and other community services	\$1,522,000	\$1,218,000	80%
	<b>\$85,438,000</b>	<b>\$49,844,000</b>	<b>58%</b>

### **3.3.1 Breadth of spend in Taranaki**

Of the fourteen industry groups which received some spending at the national level, there was only one which did not receive any spending in Taranaki, and that was the insurance industry. The fact that 13 industries in Taranaki received at least some direct spending from the production suggests the breadth of the spending in a project such as this.

Within Taranaki, the major spend was again in the motion picture, radio and TV services industry, although the proportion was only 32 percent of the total spend (NZ\$12.9 million). Four of the industry spends were captured entirely within the region. These were ancillary services to construction; accommodation; property ownership, management and real estate; and employment, security and investigative services.

Taranaki managed to participate in each of the industries bar one, which is a very positive outcome for the region. The table above can be used to suggest areas that Taranaki could look at in terms of capturing a higher proportion of the total spend. However, identifying areas for improvement requires a bit more thought and analysis. It does appear that Taranaki did very well in areas where it already had the infrastructure in place, for example accommodation and ancillary services to construction.

Just because Taranaki only captured 32 percent of the motion picture, radio and TV services does not mean they did not do very well in terms of that industry. To increase spend in this area would have required a higher level of expenditure in infrastructure, assets and resources in this field, which may not be practical for a one-off project.

Over time it would be interesting to see how the industry proportions would change if Taranaki did become a more popular place to shoot movie productions.

### 3.3.2 Key industries

The main industries to receive spending at the national and regional level are shown in the table below.

National	Taranaki
motion picture radio and TV services (\$40.324m, 47.2%)	motion picture radio and TV services (\$12.946m, 26%)
accommodation (\$10m, 11.7%)	accommodation (\$10m, 20%)
property ownership and management and real estate (\$9.591m, 11.2%)	property ownership and management and real estate (\$9.591m, 19.2%)
vehicle and equipment hire (\$5.825m, 6.8%)	vehicle and equipment hire (\$4.128m, 8.3%)
retail trade (\$5.45m, 6.4%)	ancillary services to construction (\$3.83m, 7.7%)

The top four industries were the same at both the national and regional level. Retail trade was the fifth industry in the national expenditure and ancillary services to construction was the fifth industry in the 'regional' expenditure.

The top five industries also accounted for similar proportions of total expenditure, 83.3 percent for national and 81.2 percent for regional. However, the proportions of the top three industries were significantly different. Motion picture, radio and TV services accounted for 47.2 percent of the national spend, but only 26 percent of the regional spend. Conversely, accommodation accounted for 11.7 percent of the national spend and 20 percent of the regional spend. Similarly property ownership and management and real estate accounted for 11.2 percent of the national spend and 19.2 percent of the regional spend.

The low proportion of the motion picture radio and TV services spend in Taranaki suggests that their economy is not currently geared toward movie productions in particular. This is apparent by the low regional spend on areas such as wardrobe and film and laboratory. However, it is clear that Taranaki has the infrastructure and industries that can support a major film. Taranaki was able to provide 100 percent of the accommodation needs. Similarly it provided the majority of the vehicle and equipment hire as well as the majority of ancillary services to construction.

Specific industries where Taranaki did not capture a large proportion of the spend included insurance (0 percent), water and rail transport (10 percent), air transport, services to transport and storage (14 percent) and communication services (17 percent). Most of these industries are nationally based industries and you would not expect Taranaki to capture a large proportion of the expenditure.

Retail trade, where Taranaki only captured 54 percent appears low. However, a large proportion of that expenditure was on specialty materials for wardrobe, which were mainly sourced out of Auckland.

The industry breakdown suggests that Taranaki did reasonably well out of the project considering the industries involved. The film industry is based in the three main centres and it makes sense to remain so. However, the industry is highly mobile and can therefore move around the country with little disruption. You would therefore not expect Taranaki to capture a high proportion of the spend in that industry. What is more important is the region's ability to provide the necessary ancillary and support services and infrastructure such as accommodation, construction services, labour, and materials, as these are more important considerations when choosing a location for a film shoot (although you cannot beat the right topography). Taranaki appears to have the capability and capacity to provide these as well as topography that would suit a range of film productions.



## 4 Multiplier analysis

The underlying logic of multiplier analysis is relatively straightforward. An initial expenditure in an industry creates flows of expenditures that are magnified, or “multiplied”, as they flow on to the wider economy. This occurs in two ways:

1. the industry purchases materials and services from supplier firms, who in turn make further purchases from their suppliers.
2. persons employed in the direct development and in firms supplying services earn income (mostly from wages and salaries, but also from profits) which, after tax is deducted, is then spent on consumption. There is also an allowance for some savings.

Hence, while there was an estimated spend of around \$85 million, the actual output generated from the spend was greater once the flow on activity generated is taken into account.

### **Leakages**

Generally the more developed, or self sufficient, an industry in a region is, the higher the multiplier effects. Conversely, the more reliant an industry is on supply inputs from outside the region, the lower the multipliers. These outside factors can be referred to as “leakages”.

To put this another way, if a house was purchased in Taranaki, and all the materials and labour were sourced in Taranaki, and all the materials and labour that went into making the housing materials were made in Taranaki and so forth plus the labourers then spent their wages or salaries in Taranaki, again on goods or services produced solely in Taranaki, then all the multiplier effects would be captured by Taranaki. Where inputs or outputs come from outside Taranaki, leakages are said to exist, and the multiplier effect reduces.

### **4.1 The Last Samurai multipliers**

The multiplier analysis has been used to determine the direct and indirect effects of TLS’ expenditure on both the regional and national economy. For each industry we have multipliers at the regional and national level, which can estimate the indirect impact on the level of gross output.

Using multiplier analysis we can work out, at the regional and national level, the amount of value added to the regional economy from \$1 million of gross output. Also, for each industry we know for every \$1 million of gross output the numbers of Full Time Equivalent (FTE) jobs created.

The level of expenditure by TLS in each industry is the amount that the ‘gross output’ of that industry is increased directly by the film. The analysis of the average value added and FTE employment generated by \$1 million of expenditure by TLS is depicted in the table following.

**Average ratio to \$1m of gross output of TLS**

	<b>National</b>	<b>Taranaki</b>
<b>Gross Output (\$m)</b>	1.0	1.0
<b>Value Added (\$m)</b>	0.457	0.477
<b>Employment (FTEs)</b>	7.98 FTEs	9.71 FTEs

On average at the national level, every \$1 million spent by TLS resulted in 'direct' value added of NZ\$457,000 and almost 8 FTEs.

At the Taranaki level, the average ratios to gross output were slightly higher. Every \$1 million spend in the Taranaki region resulted on average in direct value added of NZ\$477,000 and close to 10 FTEs.

**Average multipliers for TLS expenditure**

	<b>Type Ib: direct + indirect</b>		<b>Type II: direct + indirect + induced</b>	
	<b>National</b>	<b>Taranaki</b>	<b>National</b>	<b>Taranaki</b>
<b>Gross Output (\$m)</b>	1.70	1.24	2.29	1.39
<b>Value Added (\$m)</b>	1.71	1.23	2.35	1.40
<b>Employment (FTEs)</b>	1.57	1.17	2.06	1.27

The multipliers are specific to the TLS project and are based on the average of the industries and the proportions spent on each. Type II gross output multipliers are 2.29 at the national level and 1.39 at the Taranaki region level. This means that every \$1 million spent on TLS generated NZ\$2.29 million of output nationally. If the \$1 million was spent within Taranaki then NZ\$1.39 million would be captured by the region.

The indirect and induced effects tend to favour the national economy more (in contrast to the direct effects, where Taranaki had the higher ratios). Looking at the Type Ib and Type II multipliers, the national effects are higher across all three measures but particularly for gross output and value added. This is because the further the rounds of the spend go, the more likely the inputs and expenditure will be from outside the Taranaki region.

*Looking at the impacts from a regional perspective, the more you can attract or supply from your region the better, as the indirect and induced effects tend to dissipate across the economy. From a national perspective, supporting regional film would have positive impacts on the economy as a whole as the benefits do spread across the economy.*

*A further benefit is that additionality is high as it is basically foreign direct investment and an injection of cash into a region. It is highly unlikely that it is impinging on another film opportunity in the region or nation.*

Applying the multiplier ratios above to the estimated spend determined in the indicative budget results in the following numbers.

<b>Multiplier Effect (National)</b>	<b>Injection (Direct)</b>	<b>Type Ib: Direct + Indirect</b>	<b>Type II: Direct + Indirect + Induced</b>
Output (\$m)	\$85.4	\$145.2	\$195.7
Value Added (\$m)	\$39.0	\$67.0	\$91.7
Employment (FTEs)	681.7	1,069.7	1,403.3

#### **Output (national)**

Based on the indicative budget there was an injection of NZ\$85.4 million from TLS in New Zealand. Applying a Type Ib multiplier of 1.7 results in gross output of NZ\$145.2 million. Applying the Type II multiplier of 2.29 results in total output of NZ\$195.7 million.

#### **GDP (national)**

Looking at value added the direct effect of spending NZ\$85.4 million would be NZ\$39 million. The Type Ib effect would increase value added by 1.71 times to NZ\$67 million. The Type II effect would be 2.35 times or NZ\$91.7 million.

#### **Employment (national)**

The direct impact of the NZ\$85.4 million injection on employment would be approximately 682 jobs ( $85.4 \times 7.98$ ). Including indirect effects would increase employment to around 1,070 jobs. Adding induced effects would increase employment further to 1,403 FTEs.

<b>Multiplier Effect (Taranaki)</b>	<b>Injection (Direct)</b>	<b>Type Ib: Direct + Indirect</b>	<b>Type II: Direct + Indirect + Induced</b>
Output (\$m)	\$49.8	\$61.6	\$69.1
Value Added (\$m)	\$23.8	\$29.2	\$33.4
Employment (FTEs)	483.9	564.6	615.6

At the regional level the direct spend from TLS was lower at NZ\$49.8 million. The multipliers are also slightly lower to take into account the leakages out of the region. Direct and indirect (Type Ib) effects were \$61.6m in gross output, NZ\$29.2m in value-added and 565 employees. Direct, indirect and induced (Type II) effects were NZ\$69.1m in gross output, NZ\$33.4m in value added, and 616 employees.

#### **Output (Taranaki)**

Gross output for the Taranaki region including all effects is NZ\$69.1 million. This is made up of a direct injection of NZ\$49.8 million, indirect effects of around 11.8 million and induced effects of a further NZ\$7.5 million

#### **GDP (Taranaki)**

The impact of the NZ\$49.8 million spent directly in Taranaki resulted in value added (or GDP) of around NZ\$33.4 million. This is made up of direct effects of NZ\$23.8 million, indirect effects a further \$5.4 million and induced a further NZ\$4.2 million.

### **Employment (Taranaki)**

The TLS spend in the Taranaki region resulted in the generation of 616 jobs. This was made up of 484 direct jobs, a further 81 indirect jobs, and a further 51 induced jobs.

#### **4.1.1 Summary**

Taking into account all effects, TLS had a gross output effect of NZ\$195.7 million, added NZ\$91.7 million to GDP and employed 1,403 FTEs.

In the Taranaki region, the impact was NZ\$69.1 million in gross output, NZ\$33.4 million in GDP, and an additional 616 jobs.

## **4.2 Industry multipliers**

This section breaks the multiplier effects down to the industry level for both the national and the Taranaki economies.

### **4.2.1 Output effects**

#### **National**

<b>Output (National)</b>	<b>Injection (Direct)</b>	<b>Type I b Direct + Indirect</b>	<b>Type II Direct+ Indirect+ Induced</b>
	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>
Ancillary services to construction	\$3.83	\$7.20	\$9.77
Retail trade	\$5.45	\$9.48	\$13.68
Accommodation	\$10.00	\$18.90	\$25.00
Bars, clubs, cafes and restaurants	\$3.65	\$7.96	\$10.33
Road freight transport	\$0.45	\$0.86	\$1.15
Water and rail transport	\$0.45	\$0.72	\$0.97
Air transport, services to transport and storage	\$1.65	\$2.69	\$3.43
Communication services	\$1.55	\$2.31	\$3.02
Insurance	\$0.15	\$0.26	\$0.35
Property ownership and mgmt and real estate	\$9.59	\$15.73	\$19.37
Vehicle and equipment hire	\$5.83	\$9.61	\$12.23
Employment, security and investigative services	\$1.00	\$1.58	\$2.54
Motion picture, radio and TV services	\$40.32	\$65.32	\$89.92
Personal and other community services	\$1.52	\$2.57	\$3.97
<b>TOTAL</b>	<b>\$85.44</b>	<b>\$145.20</b>	<b>\$195.74</b>

The Type II multiplier for gross output (National) was 2.291. Type II multipliers ranged from 1.95 for communication services to 2.83 for bars, clubs, cafes and restaurants. Looking at the effect of the multipliers, while bars, clubs, cafes and restaurants accounted for only 4.3 percent of the initial spend, it accounted for 5.3 percent of total output effect. Conversely, communication services accounted for 1.8 percent of initial spend and only 1.5 percent of total output effect.

Others with high gross output multipliers were personal and other community services (2.55), ancillary services to construction (2.55), road freight transport (2.55) and employment, security and investigative services (2.55).

Other low gross output multiplier industries were property ownership and management and real estate (2.02) and air transport, services to transport and storage (2.08).

Of the NZ\$195.7m of Type II output effects, around 46 percent came from the motion

picture, radio and TV services industry. This compares to an initial spend in that industry of 47.2 percent. Accommodation contributed NZ\$25 million (12.8 percent) from a NZ\$10 million (11.7 percent) injection.

### *Taranaki*

<b>Output (Taranaki)</b>	<b>Injection (Direct)</b>	<b>Type I b Direct + Indirect</b>	<b>Type II Direct+ Indirect+ Induced</b>
	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>
Ancillary services to construction	\$3.83	\$4.90	\$5.55
Retail trade	\$2.93	\$3.66	\$4.34
Accommodation	\$10.00	\$12.70	\$14.20
Bars, clubs, cafes and restaurants	\$3.33	\$4.66	\$5.19
Road freight transport	\$0.34	\$0.47	\$0.53
Water and rail transport	\$0.05	\$0.06	\$0.06
Air transport, services to transport and storage	\$0.23	\$0.27	\$0.30
Communication services	\$0.27	\$0.30	\$0.33
Insurance	\$0.00	\$0.00	\$0.00
Property ownership and mgmt and real estate	\$9.59	\$11.61	\$12.47
Vehicle and equipment hire	\$4.13	\$5.12	\$5.61
Employment, security and investigative services	\$1.00	\$1.20	\$1.48
Motion picture, radio and TV services	\$12.95	\$15.15	\$17.22
Personal and other community services	\$1.22	\$1.51	\$1.84
<b>TOTAL</b>	<b>\$48.84</b>	<b>\$61.60</b>	<b>\$69.13</b>

In the Taranaki region, Type II output multipliers averaged 1.39 and ranged from 1.26 (communication services and insurance) to 1.58 (road freight transport). The NZ\$12.946 million injection in the motion picture, radio and TV services (26 percent of total) accounted for NZ\$17.218 million of total output (24.9 percent of total).

Other industries with high multipliers included bars, clubs cafes and restaurants (1.56) and personal and other community services (1.51).

Low multipliers came from air transport, services to transport and storage (1.29) and property ownership and management and real estate (1.3).

Unfortunately, two of the largest spends were in industries which had multipliers below the average. Road, freight and transport, which had the highest multiplier, accounted for less than one percent of the total spend in the region.



#### 4.2.2 Value added effects

##### National

Value Added (National)	Injection (Direct)	Type I Direct + Indirect	Type II Direct+ Indirect+ Induced
	\$m	\$m	\$m
Ancillary services to construction	\$1.49	\$2.87	\$4.14
Retail trade	\$2.78	\$4.58	\$6.65
Accommodation	\$4.60	\$8.30	\$11.20
Bars, clubs, cafes and restaurants	\$1.20	\$2.96	\$4.12
Road freight transport	\$0.21	\$0.40	\$0.54
Water and rail transport	\$0.26	\$0.40	\$0.51
Air transport, services to transport and storage	\$0.63	\$1.11	\$1.47
Communication services	\$0.84	\$1.19	\$1.53
Insurance	\$0.07	\$0.13	\$0.17
Property ownership and mgmt and real estate	\$5.85	\$8.82	\$10.65
Vehicle and equipment hire	\$3.15	\$4.95	\$6.23
Employment, security and investigative services	\$0.61	\$0.93	\$1.38
Motion picture, radio and TV services	\$16.53	\$29.03	\$41.13
Personal and other community services	\$0.81	\$1.32	\$2.01
<b>TOTAL</b>	<b>\$39.02</b>	<b>\$66.99</b>	<b>\$91.75</b>

National value added had a mean Type II multiplier of 2.35 and ranged from 1.82 (property ownership and management and real estate) to 2.77 (ancillary services to construction).

Industries with high value added multipliers included road freight transport (2.57) and insurance (2.56). Low value added multiplier industries also included communication services (1.83) and water and rail transport (1.97).

Type II value added effects totalled NZ\$91.75m, with the majority coming from motion picture, radio and TV services (NZ\$41.13m), accommodation (NZ\$11.2m) and property ownership and management and real estate (NZ\$10.65m). The first two had multipliers above the average, whereas property ownership and management and real estate had the lowest multiplier at 1.82.



Cast members from 'The Last Samurai' take some time out to explore Taranaki.

## Taranaki

<b>Value Added (Taranaki)</b>	<b>Injection (Direct)</b>	<b>Type I b Direct + Indirect</b>	<b>Type II Direct+ Indirect+ Induced</b>
	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>
Ancillary services to construction	\$1.46	\$1.92	\$2.26
Retail trade	\$1.49	\$1.82	\$2.17
Accommodation	\$4.60	\$5.70	\$6.50
Bars, clubs, cafes and restaurants	\$1.10	\$1.63	\$1.90
Road freight transport	\$0.16	\$0.22	\$0.26
Water and rail transport	\$0.03	\$0.03	\$0.04
Air transport, services to transport and storage	\$0.09	\$0.11	\$0.12
Communication services	\$0.14	\$0.16	\$0.18
Insurance	\$0.00	\$0.00	\$0.00
Property ownership and mgmt and real estate	\$5.95	\$6.91	\$7.48
Vehicle and equipment hire	\$2.23	\$2.72	\$2.97
Employment, security and investigative services	\$0.61	\$0.73	\$0.88
Motion picture, radio and TV services	\$5.31	\$6.47	\$7.64
Personal and other community services	\$0.65	\$0.79	\$0.97
<b>TOTAL</b>	<b>\$23.80</b>	<b>\$29.21</b>	<b>\$33.36</b>

Taranaki value added had a mean multiplier of 1.40 and ranged from 1.73 for bars, clubs, cafes and restaurants, to 1.24 for communication services.

Other industries with high multipliers included road freight transport (1.62), ancillary services to construction (1.55) and personal and other community services (1.51).

Low multipliers were property ownership and management and real estate (1.26), vehicle and equipment hire (1.33) and water and rail transport (1.36).

Again the majority spend came from motion picture, radio and TV services (NZ\$7.64 million), property ownership and management and real estate (NZ\$7.48 million) and accommodation (NZ\$6.5 million). Motion picture, radio and TV services and accommodation had multipliers slightly above the average, whereas property ownership and management and real estate had one of the lowest multipliers at 1.26.

### 4.2.3 Employment effects

The highest national Type II employment multipliers were personal and other community services (34.77 per \$m), bars, clubs, cafes and restaurants (28.14 per \$m), and accommodation (26.09 per \$m). The lowest Type II multipliers were for communication services (10.57 per \$m) and air transport, services to transport and storage (10.58 per \$m). The average Type II multiplier was 16.44.

At the national level, the project created over 1,400 jobs\*, with over 680 of those being direct impacts. The major impact was from the motion picture, radio and TV services, which was responsible for around 530 jobs. The accommodation industry had an extra 260 jobs and retail trade benefited by 134 jobs. Least affected were insurance with two jobs and water and rail transport with approximately five jobs.

\* Full Time Equivalent (FTE) jobs

### National

<b>Employment (National)</b>	<b>Injection (Direct)</b>	<b>Type Ib Direct + Indirect Induced</b>	<b>Type II Direct+ Indirect+</b>
	<b>FTEs</b>	<b>FTEs</b>	<b>FTEs</b>
Ancillary services to construction	35.6	56.9	73.7
Retail trade	81.4	106.9	134.2
Accommodation	170.9	220.8	260.9
Bars, clubs, cafes and restaurants	62.7	87.1	102.7
Road freight transport	2.6	5.5	7.4
Water and rail transport	1.7	3.2	4.8
Air transport, services to transport and storage	6.4	12.7	17.5
Communication services	7.0	11.7	16.4
Insurance	0.7	1.5	2.1
Property ownership and mgmt and real estate	45.3	84.7	108.7
Vehicle and equipment hire	26.3	52.0	69.5
Employment, security and investigative services	11.8	16.4	22.6
Motion picture, radio and TV services	193.6	366.5	529.9
Personal and other community services	35.6	43.7	52.9
<b>TOTAL</b>	<b>681.7</b>	<b>1069.7</b>	<b>1403.3</b>

### Taranaki

Looking at the Taranaki multipliers, the highest were personal and other community services (27.3 per \$m), bars, clubs, cafes and restaurants (20.62 per \$m) and accommodation (19.75 jobs per \$m). The lowest multipliers were in air transport, services to transport and storage (5.87 jobs per \$m), water and rail transport (6.11 jobs per \$m) and communication services (6.27 jobs per \$m). The average Type II multiplier was 12.33. In the Taranaki region the direct spend resulted in 484 FTE jobs and around 616 FTE jobs after including indirect and induced effects. The majority of employment creation at the Taranaki region level came from the accommodation industry (197 jobs), motion picture radio and TV services (93 jobs) and property ownership and management and real estate (71.84). No jobs were created in the insurance sector and employment generation was insignificant in the transport sectors and communication services. This is consistent with the make-up for these industries, which are largely national companies.

<b>Employment (Taranaki)</b>	<b>Injection (Direct)</b>	<b>Type Ib Direct + Indirect</b>	<b>Type II Direct+ Indirect+ Induced</b>
	<b>FTEs</b>	<b>FTEs</b>	<b>FTEs</b>
Ancillary services to construction	34.2	42.1	46.4
Retail trade	43.8	48.7	53.0
Accommodation	170.9	187.0	197.5
Bars, clubs, cafes and restaurants	57.1	65.1	68.6
Road freight transport	2.0	3.1	3.4
Water and rail transport	0.2	0.2	0.3
Air transport, services to transport and storage	0.9	1.2	1.4
Communication services	1.2	1.4	1.7
Insurance	0.0	0.0	0.0
Property ownership and mgmt and real estate	52.6	65.7	71.8
Vehicle and equipment hire	18.6	26.3	29.5
Employment, security and investigative services	11.8	13.5	15.4
Motion picture, radio and TV services	62.1	79.4	93.3
Personal and other community services	28.5	31.0	33.3
<b>TOTAL</b>	<b>483.9</b>	<b>564.6</b>	<b>615.6</b>

## **5 Tax benefit**

This section looks at the potential tax benefits from The Last Samurai production. The report covers both the direct tax of the production spend and the estimated tax from the multiplier effects of the film.

### **5.1 Production Tax**

Based on the indicative budget, the TLS production spent around NZ\$85.4 million on the film in New Zealand. The three forms of tax that are collected are Goods and Services Tax; Film Company Income Tax and other Income Tax.

#### **5.1.1 Goods and Services Tax**

GST is a domestic consumption tax. As such, if a good or a service is produced for export, then GST can be claimed back. The tax process for domestic goods and services is that each producer along the value-adding chain charges GST on the output and claims back the GST component on all goods purchased. In this case it is likely that the TLS production has classed the production of the movie as a good that is made for consumption outside of New Zealand, thus the film company is an exporter and so is zero-rated for GST. It does not have to pay GST on its output, and can claim back all of the GST component of its purchases. This means that there is effectively no GST revenue generated from the chain of suppliers to the film company. Therefore there is unlikely to be any GST impact from the actual film production.

However, production crew and staff would have purchased goods and services for personal consumption. This consumption would attract GST and so there is some GST benefits from the filming in New Zealand. Assuming discretionary spending by the international production crew of up to NZ\$4.5 million, GST benefits could be anywhere up to NZ\$500,000.

#### **5.1.2 Film Company Income Tax**

The general approach for foreign films is to set up a special purposes company for the duration of the film. It is then wound up once the production concludes (or it could be retained for further films if they are thinking of coming back).

The function of the sub-entity is to produce a film and is not responsible for other aspects of the movie such as distribution and marketing. As such it is bearing little risk. Hence, you would not expect the sub-entity company to declare major profits.

It would be reasonable to expect that gross profits of the production would be in the range of five to ten percent of expenditure. Accepting these assumptions then gross profits based on the indicative budget could range from between NZ\$4.27 million and NZ\$8.54 million which suggests that company tax paid would be between NZ\$1.41 million and NZ\$2.82 million.

#### **5.1.3 Other Income Tax**

Other Income Tax is probably the most complex tax estimate to determine. Local contractors are generally self-employed, and are likely to face an Income Tax liability of between 15 – 25 percent of gross payments received. Overseas non-resident workers are likely to be considered on a case by case basis depending on whether they are from countries that have double tax agreements with New Zealand and the length of time they worked in New Zealand. Overseas workers can be classed as either:

- *people behind the camera (Contractors) for example camera crew and set designers are taxed at the rate of 15c in the dollar.*
- *people in front of the camera (Entertainers) are taxed at the rate of 20c in the dollar.*

You could expect 50% or more of overseas contractors would be eligible to apply for tax exemption or a reduced rate certificate.

Based on the information above you would expect contractors in New Zealand to pay Income Tax of around 15 to 25 percent; non-resident entertainers to pay 20 percent of their income derived in New Zealand; and around a quarter of the non-resident contractors to pay 15 percent of their income.

Labour costs approximated by the expert panel amounted to approximately NZ\$35 million which could be split down to:

- *local contractors* *NZ\$17,395,438;*
- *international contractors:* *NZ\$16,848,657;*
- *international entertainers:* *NZ\$720,000.*

Applying this to the assumed tax take results in the following figures:

	<b>Labour expenditure (\$000)</b>	<b>Low (\$000)</b>	<b>High (\$000)</b>
<b>Local contractors</b>	17,395	2,609	4,349
<b>International contractors</b>	16,849	632	632
<b>International entertainers</b>	720	144	144
<b>Total</b>	34,964	3,385	5,125

Income Tax from the labour expenditure of NZ\$34.964 million could range from around NZ\$3.385 million to NZ\$5.125 million. Thus, combining the potential local and international contractors results in a tax rate of between 9.7 percent and 14.7 percent of total labour expenditure.

Note that Income Tax would also be paid by above the line actors and contractors. The income component of the actors' contracts is complex to determine, and the detail of the contracts is not known, so these have not been included in this report. However, when you consider the fees of the main actors, producers and directors, the tax on the income component of these could add up to a significant amount.

#### **5.1.4 Direct tax summary**

	<b>Low (\$000)</b>	<b>High (\$000)</b>
<b>GST</b>	0	500
<b>Company Tax</b>	1,410	2,820
<b>Income Tax</b>	3,385	5,125
<b>Total tax take</b>	4,795	8,445

Combining the three areas we can see the majority of tax will come from Income Tax, followed by Company Tax, with GST contributing only a small proportion (due to the export nature of the production). The total tax take, based upon the indicative budget estimated spend ranges from NZ\$4.795 million to NZ\$8.445 million. This is approximately 5.6 percent to 9.9 percent of total budget expenditure.

## 5.2 Tax benefit after multipliers

We have estimated the possible tax take from the indirect activity and the induced activity estimated by the multipliers. We have obtained global estimates of these numbers using national average coefficients for the wages and company incomes component of value added derived from national input-output tables. We have applied these coefficients and national average tax rates to the value added estimates from the multiplier analysis in the table.

<b>Multiplier Tax Effect (National level)</b>		<b>Injection (Direct)</b>	<b>Indirect</b>	<b>Induced</b>
Output	(\$m)	\$85.4	\$59.8	\$50.5
Value added	(\$m)	\$39.0	\$28.0	\$24.8
Employment	(FTEs)	681.7	388.0	333.6
Average wages per dollar value added	(Cents)	53.3		
Total wages	(\$m)	\$20.8	\$14.9	\$13.2
Average Income Tax rate (cents per dollar)		22.0		
<b>Total Income Tax</b>	<b>(\$m)</b>	<b>\$4.6</b>	<b>\$3.3</b>	<b>\$2.9</b>
Average interest, rent and profit per dollar value added	(Cents)	36.0		
Total company surplus/profit	(\$m)		\$10.1	\$8.9
Average Company Tax rate (cents per dollar)		26.0		
<b>Total Company Tax</b>	<b>(\$m)</b>		<b>\$2.6</b>	<b>\$2.3</b>
GST liable sales	(\$m)			\$50.5
GST tax rate	(cents per dollar)	12.5		
<b>Total GST</b>	<b>(\$m)</b>			<b>\$6.3</b>

For this analysis BERL has used national average coefficients determined from the input output tables. The average income tax rate is around 22c in the dollar and wages make up around 53c per dollar value added. The average company tax rate is around 26c in the dollar and the average interest rate and profit per dollar value added is around 36c.

To provide a cross-check of our methods we estimated the possible level of Income Tax generated directly from the film, using the 'injection', or direct numbers from the table above. This estimate in the table is of Income Tax on the direct injection of NZ\$4.6 million which fits well with the NZ\$3.3 million to NZ\$5.1 million estimated by the other method above.

The multiplier estimate of Income Tax is NZ\$3.3 million for indirect activity, and NZ\$2.9 million for induced activity, a total Income Tax of NZ\$6.2 million.

The Company Tax generated from the interest, rent and profit component of value added is estimated at about NZ\$2.6 million from the indirect activity and NZ\$2.3 million

from the induced activity, a total Company Tax of about NZ\$4.9 million.

There is no GST generated by the indirect activity, as outlined above, and the GST generated by the induced activity is estimated at about NZ\$6.3 million.

The tax revenues generated from the multiplier activity are therefore estimated to be about NZ\$17.4 million.

### 5.3 Tax benefit summary

	<b>Direct Taxation (\$m)</b>	<b>Indirect Taxation (\$m)</b>	<b>Induced Taxation (\$m)</b>	<b>Total Tax Taxation Benefit (\$m)</b>
<b>Company Tax</b>	1.4 - 2.8	2.6	2.3	<b>6.3 - 7.7</b>
<b>Income Tax</b>	3.4 - 5.1	3.3	2.9	<b>9.6 - 11.3</b>
<b>GST</b>	0 - 0.5	0	6.3	<b>6.3 - 6.8</b>
<b>Total Tax Benefit</b>	<b>4.8 - 8.4</b>	<b>5.9</b>	<b>11.5</b>	<b>22.2 - 25.8</b>

When these revenues are added to the estimate of direct tax take in the previous section, this yields an overall tax take of NZ\$22.2 million to NZ\$25.8 million from the film elements in the indicative budget, and the multipliers on those. Based on the above analysis:

- *direct taxation accounts for between NZ\$4.8 and NZ\$8.4 million;*
- *indirect taxation accounts for around NZ\$5.9 million; and*
- *induced taxation accounts for around NZ\$11.5 million.*



*Paul Holmes interviewing John Toll (Cinematographer) and Edward Zwick (Director) of The Last Samurai.*

## 6 Taranaki Business Survey

A survey on the impact of the film on local businesses and individuals was undertaken by Venture Taranaki (VT). This section outlines the methodology, survey responses and key findings. Results that back up other issues identified have been included throughout the report where relevant.

### 6.1 Objective

The objective of The Last Samurai Business Survey was to identify and measure the key flow-on benefits Taranaki has gained as a result of the film company coming to the region.

This feedback provides further information and depth to the economic analysis, undertaken by BERL, as well as providing input into the strategic review of TLS filming (such as capability enhancement, upskilling and opportunities for future improvements).

Specific objectives of the Business Survey included collating information on the:

- *types of services and products local businesses supplied to the film company and the approximate total dollar value of the relationship;*
- *key industries that benefited from the film coming to Taranaki;*
- *strengths, weaknesses and opportunities within the film industry supply chain structure in Taranaki;*
- *reasons behind why some opportunities may have been lost in servicing the film company;*
- *employment benefits resultant from relations with the film company;*
- *skills learnt and training required;*
- *investments made as a result of additional income generated by the film company;*
- *marketing strategies undertaken by businesses to gain film company work;*
- *additional information businesses require or support VT can provide to businesses to assist in developing the film servicing industry in Taranaki;*
- *gathering of local feedback on regional promotional ideas within the film industry in New Zealand and internationally.*

### 6.2 Methodology<sup>7</sup>

The population for this research is defined as all parties that had a relationship with the film company.

As Venture Taranaki endeavoured to capture as much of the relevant population as possible, surveys were distributed to all Taranaki based businesses (NZ Post 3,998). In addition to businesses, households that were utilised as rental properties for the film company also received a survey form in the mail (a population of 180 households - a list of rented households has been made available to Venture Taranaki for the purposes of this research) and residential households in the Urenui area also received survey forms (430).

A prize incentive was used to aid response rate. Marketed as 'a night out with star treatment' the prize was consistently promoted through the advertising and survey material.

7 - See the full survey report at [www.taranaki.info](http://www.taranaki.info) for a complete description of the survey methodology, error/bias influences and error margin analysis.

A launch advertisement and three reminder adverts were printed in the regional newspaper 'The Daily News' to assist in raising community awareness of the survey. A concluding thank you advertisement announcing the winner of the draw was also printed after the survey closing date.

### **6.3 Survey responses**

A total of 3,998 surveys were sent out to businesses in the Taranaki region. Of these a total of 588 business responses were received. This equates to a business response rate of 14.7 percent. However, it is important to consider that not all businesses that received a survey form were impacted by the film (thus were not in the relevant survey population) and a lower than average response rate was anticipated.

For business respondents an overall confidence of 95 percent plus or minus 2.9 percent can be calculated<sup>8</sup>. The majority of business respondents (80.4 percent) were located within the New Plymouth district. The largest representation by industry was within the retail and wholesale industry with 34.0 percent of business respondents operating within this group. In addition to businesses, 42 property, 12 crew and 15 other responses were received.

### **6.4 Key findings**

Over one third (39.1 percent) of business respondents reported providing a product or service to the film company. Of these businesses, 66.1 percent provided a product while 33.9 percent provided a service. Many of those businesses that provided a product also provided a service in relation to that product (i.e. preparation, installation, maintenance, special adaptations etc.). The majority of the products and services provided by surveyed Taranaki businesses to the film company can be categorised under food, accommodation, transport and labour.

A total of 99.0 percent of business respondents reported they believed the film company in Taranaki had a positive affect on the regional economy.

Overall, 74.8 percent of businesses reported the film company had a financial impact on their business. Financially, the restaurant/accommodation, transport/communications and retail/wholesale industries reported the greatest impact with 92.3 percent, 89.4 percent and 80.2 percent respectively of businesses within these sectors reporting a financial impact was evident\*. Collectively 38.9 percent of business respondents within the restaurant and accommodation industry sector also reported relationships over the value of \$100,000\*.

When considering financial impact by proportional increase in sales, the industry sector that reported the highest percentage increase was the restaurant and accommodation industry. Collectively 67.4 percent of businesses within this sector reported an increase in sales of over 6.0 percent while 38.8 percent reported an increase of over 10.0 percent. The next most affected industry was the retail and wholesale sector. A total of 34.5 percent of businesses within this industry reported an increase in sales of over 6.0 percent\*. Conversely, industries with a significant proportion of businesses reporting no change in sales includes the mining, oil and gas, manufacturing (fabricated metals), and the health and education industries.

66.4 percent of business respondents reported gaining additional income as a result of the film operating in Taranaki. Of those who reported gaining additional income, 24.8 percent invested the additional income in an investment they otherwise would not have implemented. The most popular investments reported included reduction of debt and renovations to business/personal properties.

<sup>8</sup> - Refer to the full survey report available at [www.taranaki.info](http://www.taranaki.info) for the business respondent error margin by industry sector.

\* - For a detailed breakdown of the survey results see [www.taranaki.info](http://www.taranaki.info).

Although many respondents reported a financial benefit, a significant proportion also reported benefits such as an increase in regional outlook, pride and national interest in Taranaki. As one respondent wrote “we experienced a 3.0 percent increase in sales, but a 70.0% increase in team spirit and pride”.

Of interest was the number of respondents that reported they promoted their product or services to the film company. Only 18.4 percent (or 108 of the total 588 business respondents) reported they had actively promoted their business products and services. Of those who engaged in promotional activities, 59.8 percent (or 61 of the 108) gained a contractual relationship with the film company. Conversely, 51.6 percent of businesses that did not promote their products/ services to the film industry reported an indirect relationship with the film industry\*.

New skills reported by business respondents can be categorised as relating to two common themes. These include business operation skills that arose as a result of the community experiencing an influx in population and cultural learning due to the differences in the American, Japanese and New Zealand cultures.

Barriers and training requirements identified by interviewees and survey respondents were predominantly in relation to marketing their goods and services to the film company, and the process involved in implementing the promotion. This issue was seen as the largest barrier to gaining film company work and a number of reasons were highlighted as to why this was an issue for many businesses. Typical reasons included not knowing who to contact or how to contact them and a general unawareness in the market as to the scale of the operation.

\* - For a detailed breakdown of the survey results see [www.taranaki.info](http://www.taranaki.info).



The combination of the Economic Impact analysis, the Taranaki business interviews and the Business Survey, provided a cross-section of information pertaining to the direct, indirect and intangible effects of The Last Samurai filming.

### 7.1 Increased sales/turnover

It was apparent from the interview process that the major benefit was a direct increase in sales to the film and its crew. Also apparent was the breadth of the impact. Basically, there was an extra NZ\$90 million pumped into the national economy of which around NZ\$50 million was concentrated into the Taranaki region over a roughly six month period.

During the filming period, businesses interviewed had increases in turnover from around 40 percent through to around 800 percent. The accommodation sector in particular had occupancy rates well above what they would normally have over that period. Bars and cafés had obvious increases in sales, which have largely dropped back to normal since the film wound up. Similarly, business patterns for most other businesses have returned to normal, even if a somewhat 'buoyant' normal.

The majority of businesses used the extra income to retire debt. It allowed them to reduce gearing and provide more comfort in their operating balances. Some have used it to expand their businesses. Others have suggested that the income boost has put them 8-12 months ahead of target, and has enabled them to implement projects well ahead of schedule.

Businesses did not need to gear up in terms of capital investment to meet the demands of the project. Where necessary, businesses worked longer hours or employed more staff. This meant that when the project finished, businesses were not left with underutilised capacity and that the extra income was all profit.

To ensure it wasn't dependent on a single supplier, the film production spread its spending and used a range of businesses from similar industries. For example, all three hire companies in the region were used by the film crew for equipment hire. Several catering companies were used to supply food to the production. This enabled the benefits to be spread around the region and allowed businesses to increase income without having to increase capital investment.

Similarly, businesses interviewed were fully aware of the unique nature of the opportunity. None of them ignored their existing clientele as they realised the film was not going to be there forever. Several could have provided more services but retained a certain capacity level to service their existing, long-term customers. Wherever necessary, they pointed the film production to other suppliers, or helped fill their requirements by forwarding on business from the film production to other businesses in the region. In this way they could meet the film production's needs while at the same time meeting the needs of their existing clientele.

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*A single furniture shop received a special order for 300 wardrobes.*

*An electronics shop sold a small television to an extra for his dorm room. A few hours after he left three others came in and bought more of the same type of television.*

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*The survey found a total of 67.2 percent of business respondents reported earning additional income resulting from the film operating in Taranaki. The highest percentage increase in sales was within the restaurant and accommodation industry with over 67.4 percent of those reporting an increase in sales of more than six percent and 38.8 percent reporting an increase of over 10 percent.*

*The retail/wholesale sector reported the next highest increase in sales with 34.5 percent of businesses within this industry reporting an increase in sales of over six percent.*

*Industries with a significant proportion of businesses reporting no change in sales included: mining, oil and gas; manufacturing (fabricated metals); health and education.*

*Of the 66.4% of business respondents who reported gaining additional income, 24.8% invested the additional income in an investment they otherwise would not have implemented. Typical investments included: reduction of debt, renovations to house, renovations to business location/business assets, reinvestment into the business, purchased another business/investment property, holiday, and purchased new vehicle.*

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## **7.2 Improved capability**

Several businesses suggested they already had excellent customer service and supply practices in place and so did not have to undertake further training or change processes to supply the film crew. However, the demands of the film in terms of what they needed, and the time frames they operated under, did stretch some businesses. Juggling the demands of the film with existing clients resulted in many reviewing existing processes.

Further, the customer service demands of the film production were higher than what was usually demanded of, or provided by, businesses. In fact, many businesses went out of their way to ensure that the film production received a quality service. This has resulted in some improvement in business capability. Probably of more importance is the individual business's knowledge that they do have the ability to service a large scale production and consequently they are able to set their sights that much higher.

At the film industry level, the New Zealand participants in the film will have gained experience from a film the size of TLS. This would have added to their capability.

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*Business respondents to the survey reported a number of new skills acquired as a result of the film company operating in Taranaki. Skills resulted not only from doing business with the film company directly but also from the influx in population and the differences in American, Japanese and New Zealand cultures.*

*Specific cultural differences included: cuisine and dining etiquette; service and booking expectations; and the Japanese smoking culture.*

*The influx of business highlighted weaknesses in existing operations and a number of businesses reported implementing standards to address those weaknesses. Many businesses extended operational hours over the filming periods, with some operating 24 hours a day – learning new staff management and prioritisation skills. Other capabilities developed included contract negotiation and stock management skills.*

*Although the majority of responses can be categorised in relation to either cultural or business operation issues, other comments were made by respondents from a broader view point as one respondent wrote “experience is the mother of all teachers.”*

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### 7.3 Raised service levels

New Plymouth appears to be on the cusp of moving from a small city servicing a local community to a larger centre that can attract and service a greater, more discerning clientele. New establishments are springing up that would not appear out of place in main centres such as Auckland or Wellington. Amenities are on a par with larger regions and services, and the town can provide quality events such as WOMAD that meet the demands of a more discerning community.

The film has had an impact on service levels, and businesses appear to have set their sights higher. While they would prefer a greater population to allow better economies of scale, they believe that this will happen. The film enabled several of the businesses, particularly in the service industries, to develop their businesses and identify the level of service required to meet the needs of a growing community.

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*The retail service standards issue was raised by a number of business survey respondents. Many commented on adopting a 'can do' attitude when dealing with the film company. As one respondent wrote "Good people to deal with. Supply on demand and you reap the rewards". Conversely, a portion of respondents also reported their business could have benefited from additional service training. Some specific training requests included:*

- *service expectations of other cultures;*
  - *service education – how to meet or exceed customer needs.*
- 

### 7.4 Tourism (international and national)

The film production generated a lot of media for Taranaki and its businesses. Several national and international publications (including some travel magazines) wrote articles on Taranaki in relation to TLS being filmed there. This has created exposure and raised the profile of the region as a tourist destination both internationally and nationally.

Of more importance, these people went back to their countries with positive memories of their time in Taranaki. This word of mouth promotion is the best type of advertising for tourism. Several of the film crew have created friendships with the local community and are likely to return.

There is a possibility that the film itself may generate interest in terms of finding out more and actually visiting where it was filmed, particularly in regard to Japanese audiences. However, it is difficult to estimate the magnitude of a film on flows of people. The NZIER (2002) report on Scoping the Lasting Effects of The Lord of the Rings (p. 30) provides a good discussion on issues concerning measuring the tourism effect of film.

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*The tourism theme was evident within the survey findings. A considerable proportion of business survey respondents touched on the idea of marketing the region (nationally and internationally) as a tourist attraction. Some respondents commented on strategies such as "the place where Tom Cruise stayed" or "the heart of The Last Samurai."*

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## 7.5 Linkages

The film created several linkages for businesses and individuals within the region. As an international picture, people came in from a range of countries including the US, UK, Japan, and Australia. Several businesses have picked up contacts that will assist them in developing new markets overseas.

Similarly several businesses have now developed linkages into a new industry (film) and are proactively promoting their services to the film industry.

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*Many survey respondents indicated they still remain in touch with industry contacts they made over the filming period. A number of respondents reported maintaining contact via email. One respondent wrote “promoting a new venture to overseas markets through contacts made”. Other respondents commented they have since quoted for other New Zealand based film projects including “King Kong”.*

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## 7.6 House prices

House prices in New Zealand have been appreciating over the last few years. However, it was observed that Taranaki house prices and rents increased more dramatically over the filming period. Anecdotal evidence suggests that while there was already upward pressure in the housing market, Taranaki prices were always undervalued relative to the rest of the country. The film corrected those valuations and now properties are more appropriately priced. To put it another way – while prices suddenly became over-inflated during the filming period, they have not returned to where they originally were before the shoot began.

## 7.7 Improved awareness

New Plymouth is not renowned as an international tourist destination. It is largely a rural servicing town based on farming, oil and engineering and most of the businesses in the region service local clients. The influx of a range of different nationalities and their different expectations and requirements gave the local businesses a better understanding of what people want and expect.

Several of the businesses that worked with the film crew now have a better awareness of not only what is expected of them, but what they can deliver in terms of goods and services. Again, the film stretched their comfort zones and they are able to extend themselves rather than accepting the norm.

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*A number of business survey respondents made comments relating to regional profile. As one respondent wrote “[The Last Samurai was] great for Taranaki re the media coverage and exposure. It has put us well and truly on the map nationally and internationally. We advertised recently for staff and applicants referring to New Plymouth and Taranaki as the place where Tom Cruise stayed.”*

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## 7.8 Optimism

In the interviews, BERL was immediately aware of the optimism shown by the businesses. This was surprising considering the film had been and gone and sales were back to, or just above, the previous levels. As well, the farming sector and the oil industry were going through difficult times.

The film provided a buzz in the town. There was an outpouring of support from businesses within the region and they worked together to ensure the production went smoothly. The press was positive and all eyes were on the Taranaki region as a progressive, positive region. The film captured the imagination of the country and for a period the region relished the exposure. For a while they were hobnobbing with superstars.

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*One interviewee suggested that with the low dairy payouts by Fonterra, and the potential departure of a major oil project, there would normally be a wake-like atmosphere in the region. However, when you talk to people, and look at what is written in the papers, there is an optimism that should be unheard of in the current climate.*

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As the businesses worked with the film crew there was a realisation they could 'foot it with the big boys'. They had the infrastructure and the capability to not only meet, but exceed the needs of an international scale project. This demonstrated to them that they did not need to rely solely on the farming and oil industries (although they remain aware of the importance of these industries to the economy) and that there is more to Taranaki and its businesses.

This optimism cannot be attributed solely to TLS. Other events and factors that have contributed to the optimism in the region include the WOMAD festival, the new coastal walkway, and a very enthusiastic and positive Mayor and Council.

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*Many businesses surveyed commented on other benefits besides financial that the film brought to the region. One respondent reported "... The Last Samurai brought much more than dollars to Taranaki; it opened minds and proved to the community, to New Zealand and to the world that we can perform to the highest standards and have fun at the same time". Another respondent wrote "... we experienced a three percent increase in sales, but a seventy percent increase in team spirit and pride".*

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## **7.9 Council attitude**

The council responded positively to the film being shot in the region and went out of their way to ensure that there was as few complications for the film as possible. There is now more enthusiasm and a more positive approach toward attracting and assisting business to the region.

Business people interviewed formally and informally in New Plymouth and wider Taranaki have attributed to the Mayor of New Plymouth a lot of the credit for attracting TLS to Taranaki, and its subsequent success. There is also a broad awareness that NPDC and their staff adopted a 'can do' attitude to facilitating smooth working on the film locations. A Council officer was designated for '24/7 liaison', and the Council was able to facilitate resource consents, building consents for temporary structures, road closure permits etc. The fact that Council and VT had put a positive spin on the whole project undoubtedly assisted a generally co-operative approach from Taranaki people and businesses to the inconvenience of road closures etc.

The Council also put valuable assets at the disposal of the film, such as Pukekura Park, to assist its success.

The 'can do' attitude of Council is likely to also assist the success of future projects and events in Taranaki.

### 7.10 Experience

The film was a big "event" for the region. For a period the region went through a metamorphosis as the "Hollywood" of New Zealand. The level of excitement was high and it was the key topic of discussion in the area for several months. The whole region got to experience something completely different which impacted on their psyche. There appeared to be a collective decision that they would make this project a success. All interviewed said that the project was a positive experience – for them individually, for their business, and for the community.

Apart from the "feel good" factor experienced by most of the region, several businesses now have hands-on experience in dealing with a large film production company. This stands them in good stead and gives them an advantage in dealing with other film companies and, indeed, large projects. Companies can say that they have been involved and have experience in a providing to and servicing a large, demanding project.



None of the businesses interviewed could think of any negative impacts, or barriers, brought about by the film coming to Taranaki. There were some minor issues around house prices and negative sentiment toward the attitudes of a few home-owners and real estate agents in trying to “milk a profit” out of the film people. In general it was considered that the whole rental accommodation issue could have been dealt with better from both sides i.e. the home-owners and the production.

There was also a comment about the District Council regulations where bars had to close at a certain time. The production crew were surprised and disappointed by the regulated closing times and several bars could have kept going for a lot longer and made more money. Again this is a minor issue.

#### **Perception of Taranaki - Help or Hindrance**

There is a perception of Taranaki as being a farming community off to the side of the country that is hard to get to, with a big mountain and a lot of gas – and to a certain extent that perception is true.

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*The national perception of Taranaki was commented on by a portion of business respondents. As one respondent wrote “it made me feel Taranaki was part of the world rather than a backwater”.*

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The perception of Taranaki as off the beaten track is not necessarily a bad thing and, if marketed correctly could actually be a competitive advantage for the region. However, it has meant that Taranaki is often overlooked as an area for tourism, industry, investment, and a place to do business. The filming of TLS in Taranaki appears to have piqued the population’s interest in the region and added some spice to current perceptions.

#### **Barriers to Business**

There were also a number of themes raised in the survey relating to barriers encountered in dealing with the film company. These included:

##### **Service**

The retail service standards issue was raised by a number of respondents. Many commented on adopting a ‘can do’ attitude when dealing with the film company. Conversely, a portion of respondents also reported that their business could have benefited from additional service training. Some specific training requests included:

- *service expectations of other cultures*
- *service education – how to meet or exceed customer needs*
- *service and phone manner delivery.*

##### **Basic Japanese language**

Most respondents did not report any barriers in communicating with the film company. Industries that did comment on this issue tended to be in the retail and recreational industries. Some businesses took initiatives to overcome this barrier and had promotional brochures and posters printed prior to the film company’s arrival. Others purchased

basic Japanese language books. Overall the language barrier was not seen as insurmountable as the majority of businesses did not deal directly with the Japanese cast, however a number of businesses that did deal with either the Japanese cast or in communication mediums with the Japanese cast (signage and text translations) commented that additional training in basic Japanese language was required. One respondent commented "... should have been prepared with very basic Japanese before engaging with the group".

### **Cultural differences**

In addition to the language barrier identified above, there were a number of areas where the differences in the American, Japanese and New Zealand cultures were highlighted. For example, one restaurant respondent found that a group of American clients expected their entrée and main meal to be brought out at the same time. Similarly, service industries such as hairdressers and massage therapists found that Japanese clients expected to be able to walk in and not have to book for services in advance.

### **Contract negotiation**

Many businesses that formed a contract relationship with the film company entered into a formal contract agreement. A number of respondents reported they did not have the legal knowledge to do this with certainty, nor did they have the time to seek legal advice. Some comments from respondents regarding this issue include:

- *"farmers generally need help to form contracts with film people. We were rushed by the film company and not given time to speak with legal advice. We felt Samurai Films did not honour our contract as we understood it to mean – verbal promises were not kept by them, mostly due to lack of farming knowledge"*.
- *"how to elongate a contract and obtain legal advice very quickly under pressure "*.
- *"[training is required] so we could be a step ahead of them in negotiations"*.



*Cast members from The Last Samurai enjoying a Taranaki adventure in their leisure time.*

### 9.1 Tangibles left behind

#### **Tracking road**

A tracking road set up in the forest for filming action sequences has been left behind. This can be used for other film shoots that might come to the area and so is an asset that the region can utilise to attract further films. Many films require a forest location with a tracking road and a clean floor to gallop horses through. Then there is the need to have service roads to get lighting and film vehicles close by. It was agreed that TLS would leave that capability within the Council owned forest which is only 10 minutes from town.

#### **Location sites**

One of the farms where filming took place is looking at opportunities to leverage off the fact that a major part of the film was shot in a scenic part of their property. They are considering a tour attraction similar to the hobbit village from *The Lord of the Rings* filmed in Matamata.

### 9.2 Premiere/launch

A promotional Group from The New Plymouth District Council and Venture Taranaki in partnership with Investment New Zealand leveraged off the Premieres in New York and Los Angeles by holding special screenings of *The Last Samurai* in these locations for specifically invited guests. The aim was to market New Zealand's film capability and variety of locations around the launch of the film.

The New Plymouth District Council's Mayor also attended the Premiere in Tokyo.

Taranaki held the first public Charity Gala Screening of *The Last Samurai* on Monday 12 January. The event was a community celebration of the film with delegates from Warner Bros, Central Government and Roadshow Film Distributors attending. Two Oscar nominees were also present.

The night was a sensational success with the Taranaki populace turning out in force to participate in the planned events. Wide media coverage was obtained including live crossovers during the news on Channels One and Three.

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*Survey respondents were given the opportunity to give their feedback on how they thought the launch of the film should be promoted in Taranaki and New Zealand. Overall the results were very similar to that of marketing the region. Common responses were in relation to marketing our scenery and increasing tourism. Typical comments included:*

- *“the beautiful scenery, mountain etc as back drops”*
- *“start from the top of the mountain and work down”*
- *“promotion of our countryside, mountain to the sea, natural terrain”*
- *“use the launch to promote Taranaki and New Zealand tourism”*
- *“increase our tourism facility (revisit the gondola idea, more Queenstown type attractions, chopper rides, bungee jump etc)”*
- *“get the cable car up and running to show off the mountain. Tourist attractions of sets etc”.*

*Some more specific comments included:*

- *“send out ‘we did it’ promos to other film companies and tell them now”*
  - *“make our airport larger; Hamilton or Palmerston North size is enough”.*
  - *“write ‘NAKIWOOD’ on a hill in big white letters!”*
  - *“don’t try too hard. People love discovering best kept secrets themselves, don’t shove Taranaki down their throats, lets keep exclusive and not for the masses. There should be a ‘Taranaki – visa or passport’ to gain entry! This will attract more people if we limit no’s coming in”.*
- 

### **9.3 Tourism**

Because of the profile of the film and its connection with the Taranaki region it is possible to take advantage of the interest likely to be generated by the film to promote tourism to the region.

Similar to “Lord of the Rings” there can be offshore promotions where tourism operators are wooed, as well as local tourism initiatives.

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*This issue was heavily commented on by business survey respondents. The common tourism theme included promoting the region as the location of the filming of The Last Samurai movie and adopting a marketing strategy based on developing a film tourism industry. Respondents reported marketing slogans such as “The place where Tom Cruise stayed” or “The heart of The Last Samurai”.*

*One of the ideas reported by a business survey respondent included package tourism deals where “groups of businesses work together (i.e. accommodation and transport sector) to market a total tourism package”. This theme was common throughout responses in this section with many respondents writing comments such as “...recreate the set sites and include these on the tour” and “...it would have been good if they could have left some of the set. In the future the NPDC should buy them and set up a film set tour”.*

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### **9.4 Further films**

The Taranaki region has demonstrated that it has the infrastructure, capability and the environment to handle large film productions. It also has a dedicated resource (Film Venture Taranaki) to assist film-makers. Having successfully accommodated a major film in the region surely provides an opportunity to encourage further films to the region. There are opportunities available to increase the spend of future films in the region and encourage local suppliers.

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*A considerable portion of businesses responded they did not promote their products and services to the film company. The majority of businesses who did promote products and services did so by contacting the film company on their arrival in New Plymouth. Generally businesses reported they did not know who to contact or how to go about approaching the film company. One respondent wrote “... it was impossible to make contact if you were not in the know. I believe it was a case of who you know and not what you know”.*

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The analysis so far provides an idea of the impact of film on businesses and a New Zealand region at both a financial and an intangible level. But the question remains why film and not some other industry where the multipliers might be higher, or the effects are longer term?

### **Breadth of impact**

The first thing that can be seen from this report is the magnitude of the impact of TLS on the Taranaki region. It directly involved 13 different industries (and if we were even more accurate in the development of the indicative budget we would likely have found that it involved more).

Second was the range of businesses that were impacted upon. This ranged from a small bakery, to mid size engineering firms, to a major transport company. Some of the unexpected beneficiaries were outdoor clothing retailers, a horse dentist, and a spa bath operator who consequently established valuable export contacts. The number of businesses that were impacted upon was immense (as suggested by the survey). In most cases (particularly with large film productions) this is often by design.

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*74.6 percent of the businesses surveyed reported that the film had a financial impact on their business.*

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Production companies are aware of their effect on a small region or town when they move in. They therefore make an effort to involve as many of the local businesses as possible. This not only reduces the negative impacts on the town, but ensures the production has more than one supplier if another cannot meet their needs.

### **Type of impact**

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*Survey findings revealed that collectively 39.7% of business respondents who provided products or a service to the film company were classified as within the food, accommodation, transport or labour industries. The remaining 60.3% were distributed among the remaining industries. Some of the products and services within these groups include:*

- *fertiliser*
  - *horse dentist*
  - *bird scarer*
  - *florists*
  - *mobile phone products and services*
  - *education for pre-school children*
  - *topographical survey of set sites*
  - *preparation of resource consents*
  - *helicopter and pilot service*
  - *portable toilet hire*
  - *waste disposal*
  - *air-conditioning and refrigeration*
  - *medical support*
  - *safety camera equipment*
  - *keys, locks, padlocks, locksmithing*
  - *safety signs (in Japanese and English)*
  - *footwear – ninja sandals and boots*
-

The production was, to a large extent, an injection of cash for goods and services over a six month period. Businesses did not have to gear up (in terms of capability development or capacity) other than take on more staff and provide a more certain service. Therefore the extra income generated was profit. Most businesses were also able to continue to supply their existing clientele and so did not lose any business after the production left. It was simply a “boost” or an injection of sales into businesses without any additional outlay. Extra income was simply revenue less expenses equals profit. Most of this profit went into retiring debt, or expansion plans (that were already envisaged). All businesses understood that this was a short term event and there were no surprises or negative impacts once the film production left.

### ***Additionality and displacements***

Displacement assumes that when an event occurs it displaces existing activity or activity that would have taken place if it had not occurred. With the film production, the income generated was pretty much all additional effects. Businesses did not drop existing customers and so there was no displacement effect. If the film did not come then businesses would not have taken up other opportunities. Therefore the additionality was high and the displacement low.

### ***Exposure***

Taranaki and, in fact, New Zealand, got a lot of exposure out of TLS, and will get more in the future. The level of coverage in news media, both nationally and internationally was high. This level of interest and coverage would not occur in other industries such as oil, gas or even a multi-national company setting up in the region. To a large extent, this was driven by the interest in the movie’s star Tom Cruise. However, exposure is exposure, and Taranaki reaped a huge amount over the period of TLS.

This exposure has resulted in an increased awareness of Taranaki and what it has to offer. While the film is unlikely, in itself, to draw people to the region, it raised the awareness of Taranaki in people’s minds, which at the very least makes the region become a visitor option.

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*Venture Taranaki fielded interviews with journalists from leading business, lifestyle and film industry publications from New York, Los Angeles, London, Tokyo, Sydney and Melbourne.*

*Documentary crews arrived from the US, Japan and Germany.*

*The New Zealand TV networks were frequent visitors shooting current affairs and news items. There was strong coverage by the Sunday magazines down to neighbouring smaller papers.*

*Probably for the first time in Taranaki’s history there were ‘paparazzi’ present. The Tom Cruise press conference alone attracted 120 visiting media representatives.*

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### ***Optimism***

Probably more difficult to explain would be the optimism generated by TLS coming to the region. The film generated a feel good factor, a buzz – an excitement quotient that you just would not get from a different type of project. In a region that lives on energy, farming and engineering, having a major film in the area raised the optimism of its residents significantly.

### Experience/expertise

Similarly, the international nature of the project attracted a clientele that was culturally diverse and sophisticated in terms of their requirements. This impacted on the region and resulted in an interaction between the region and the production that:

- *provided an exciting experience to participate and be a part of a major film production and meet and learn about different cultures; and*
- *placed a requirement upon businesses to provide a service that met the needs of a more sophisticated and culturally different clientele.*

When asked about the effect of TLS most respondents considered the experience and the ability to mix with different people as something they would remember and take from the event. Similarly businesses believed that it was a slightly different customer they had to supply but they now had the ability to provide the level of service and sophistication that was required by an international clientele.

### Leverage

By being prepared and proactively pursuing a window of opportunity, VT was able to leverage off the interest shown by Warner Bros in Taranaki locations. This resulted in the selection of Taranaki for the production of the major proportion of TLS, rather than the small number of scenes initially mooted, maximising the duration and spend of Warner Bros in the region.

When you consider the impact of the film on the region (NZ\$69 million in gross output, NZ\$33 million in GDP, and 615 FTEs), the resulting benefits from the effort put in by VT and others was huge.



## 11 A strategic review of The Last Samurai

### Implications for future film policy, strategy and processes.

The intent of this report is not to merely reflect on the impact of The Last Samurai, but to learn from the experience in order to contribute to future film policies, strategies and processes.

To maximise the opportunities from film, both regionally and nationally, New Zealand must ensure it continues to position itself as an attractive environment for film makers, and ensure strategies are in place which capture, extend and leverage its economic benefits.

In order to achieve this, there needs to be ongoing dialogue and communication to ensure government and policy makers are informed on some of the issues the industry faces as it looks to realise the full potential of the opportunities presented.

A group comprising representatives from Government, region and industry (refer to 2.6 for details) reviewed the processes and outcomes from TLS to consider implications and opportunities for future film policy, systems and processes.

### 11.1 Strategic implications from The Last Samurai

#### **Film as an investment for economic development (nationally and regionally)**

Film can make a positive contribution to national and regional economic development goals.

Investment in the industry can generate significant direct, indirect and intangible spin-offs.

Expenditure during the time of filming is substantial across a wide range of businesses. It can enhance capability (without displacement), optimism and profile (national and regional).

The intangible benefits of bringing film production to regions, especially high profile projects but also examples like Whale Rider and Perfect Strangers, cannot be easily calculated, but should not be ignored.

Positive energy, pride and motivation within a regional community can provide a kick start to an economy. Anecdotal evidence of this within Taranaki suggests that even businesses with no direct connection to The Last Samurai have felt a positive surge from customers and staff alike. They are more predisposed to making ongoing investment and equally important, moving towards innovative business, social and cultural ideas.

This can even be achieved in regions without an established infrastructure in film.

The multiplier for film in New Zealand may not be spectacular - based on TLS calculations it appears slightly above-average. However strategies (regionally and nationally) should focus on ways to maximise use of local/national services, capture more of the spend, or enhance the indirect and intangible benefits to maximise results.

Marketing, training, education, PR strategies, facilitation, enhanced co-ordination, and film-friendly policies are all areas which could be reviewed with this in mind.

### ***Raising awareness of New Zealand's competencies abroad***

This is particularly difficult as the industry largely depends on contacts. The film industry will make decisions based on the head of department's past dealings and the more offshore crew that are on the project the more offshore inputs and resources will be used. This is unless there is a strong New Zealand production presence that can point to New Zealand resources that can service the project. It is very much about getting the word out that New Zealand has and can produce the goods.

On *The Last Samurai* for example, lighting was hired from Australia. This was principally due to the gaffer being an Australian and this being his preference. On the other hand, the entire wardrobe was sourced from within New Zealand which is highly unusual. The key point is to identify the opportunities lost due to lack of development or awareness by the production company and how to address this. For example, large amounts of potting mix were imported from the USA but confiscated at border control.

It has been shown that a production company typically spends locally 25-40% more with repeat productions. The key is to try to increase the local spend.

### ***Identification of reasons to choose New Zealand as a location***

There is a common perception that the decision for a production to go offshore is to achieve economic advantages. However, there is seldom one singular reason. On this particular production New Zealand topography as well as flora and ease of shooting were all important factors.

We need to identify those movies, which are highly likely to shoot overseas and identify New Zealand's role within this market. On this basis we should define our terms based on what New Zealand can offer. New Zealand needs to be competitive as opposed to cheap and we need to identify where New Zealand actually does things better than other industry locations. This is especially important because the USA is sensitive to losing this industry. Many reports have already been published on runaway productions. So we need to distinguish between international productions (key drivers: location, quality and cost) as opposed to runaway productions (key drivers: deals and cost).

### ***Issues relating to tax***

One of the key areas is taxation. For example, some people who worked on *'The Last Samurai'* took holidays in Australia or the Pacific Islands rather than in New Zealand in order to avoid staying in New Zealand longer than 183 days (where there is a bilateral tax agreement, this is the limit for paying tax only in the country of origin). In this instance, non-working extensions for holidays would be a helpful amendment to current legislation, cf. crews of super yachts. In the case of *'The Last Samurai'*, 280 people were contracted for the whole film and there were 400 short-term extras (mainly from Japan). With *'The Lord of the Rings'*, overseas workers either took up New Zealand residency, stayed for only 6 months per feature, paid non-residents' tax or were Australian.

Suggesting to production companies they use a local accountant would be helpful in regard to taxation and also would help avoid budget surprises. In general, budget surprises come about because the budget is prepared in the USA prior to developing an understanding of the location concerned. For example, *'The Last Samurai'* had a budget surprise with accommodation increases that required a workaround through

per diems. [It also experienced a change of budgeting personnel between the decision to green light the picture and the time it started serious pre-production and a resultant 20% increase occurred. This was due to not working with local budget advice and a different interpretation, which is something that producers have to work with all of the time].

As well as interfacing between production companies and national bodies within New Zealand, Film New Zealand also needs to be able to interface between local and national issues.

### ***Marketing New Zealand's infrastructure***

The concept employed by production companies is that overseas locations are hostile environments to which they have to bring their own people. Americans and British tend to want to work within their own comfort zones and while New Zealand's historical connection with the UK is known, for many USA based people we are an unknown quantity. For example, the common perception overseas is that New Zealand has third-world telecommunications capability. We need to include telecommunications companies within the coordinated approach. The strategy should be to market New Zealand as enjoying freedom from constraints of population and industry structures while also enjoying first world technology.

New Zealand regions underestimate the existing infrastructure that is available to the film industry. For example, \$13 million of the motion picture services spend for 'The Last Samurai' was with Taranaki businesses. The infrastructure and local knowledge was available for roading, sets, toilets, tents, trucks, location fees etc even without prior experience of movie productions.

### ***Immigration issues***

Current immigration laws require industry representatives to be consulted as to whether New Zealander's could fill the roles required, or there is a justification for importing labour and skills. The government bodies involved consult with Actors' Equity on the suitability of actors, while the Technicians' Guild is consulted on the suitability of technicians. Representatives of these two bodies while not paid for their involvement in this process should be offered training to ensure that they are kept up-to-date.

Immigration legislation is also seen to be outdated.

Multi-country involvement is an added complication of film production. In the case of 'The Last Samurai', New Zealand, European countries, USA and Japan were involved. So New Zealand organisations need to be aware of all issues. For example, the visas for Japanese actors could not be guaranteed in four weeks and production could have potentially been cancelled (down to a two day barrier).

### ***Labour market and business issues***

Film producers recognise the benefit of employing locals, including iwi, unemployed people and businesses - but ultimately they employ on the basis of skills. It is therefore important that training programmes be identified and made available as appropriate.

With respect to business dealings it was noted that local workers and businesses did not know what was normal for this industry and this impacted on their ability to negotiate contracts. This was particularly the case for landowners approached for use of their land for location shots. Most were uncertain over price/contract negotiation and certainly education and information would have been helpful. Benchmarking information would be incredibly useful, as it would establish realistic and consistent pricing for both sides

of the transaction to refer to.

Most of these people did seek advice from Film Venture Taranaki. The model utilised was one on levels consistent with The Lord of The Rings. Furthermore, methods of calculating lost pasture production and loss of fencing were adapted from the tables employed within the Oil and Gas industry. In the end, however, it is a private transaction between two parties.

Venture Taranaki ran a workshop with the assistance of film professionals to give advice to interested parties on how to do business with film companies. Education and training opportunities such as these, are something to be recommended for new regions in the future.

#### ***Dealing with the studios***

The Last Samurai premiered in Tokyo, Los Angeles and New York in November and December 2003 and in New Zealand in January 2004. It was noted that Warners did not want the movie to look like New Zealand and does not want to promote this fact. While it is a fact that the film was largely shot in New Zealand [ 74%], this shows that it is important to resolve branding issues beforehand if New Zealand wants to use aspects of a film for tourism promotional purposes. For example, it was very difficult getting New Line Cinema to brand New Zealand as Middle Earth. However, the grants system now in place will allow New Zealand to be more prescriptive in this area.

#### ***Developing media communication strategies***

It is important that all international studios understand the need to bring on board, reasonably early on in the production, a publicity strategy consultant. Whilst some see New Zealand as disconnected from the rest of the world by distance, there is still intense public interest in international films being shot in New Zealand. Studios must realise that New Zealand is still connected to the international media and this can have global repercussions.

'The Last Samurai' production would not bring in a publicist at first and when they did, it was two weeks prior to filming. Her tenure was for two months only and she became swamped with local interest. The Film Office ended up taking the brunt of the media onslaught, a task that was not approved of by the film company but invaluable to them.

Some of the other key points noted in relation to media/communication were:

- *that print media are valuable in providing good leverage with the lawyers for production companies.*
- *information needs to be fed to the media, because this avoids stories being made up and helps reduce the emergence of 'gossip column' style journalism.*
- *media also need to be managed before the location is finalised, because 'bad press' can jeopardise the choice of location.*
- *the need to make production companies aware that the New Zealand press is liable to inflate stories about shoots in New Zealand locations and this information can be made available in the guidelines provided to production companies.*

Shoots with a superstar factor (e.g. 'The Last Samurai') need to be differentiated from other shoots (e.g. 'The Lord of the Rings') as this impacts on the ability of the production company to work within the community. In the case of 'The Last Samurai', Village Roadshow thought that one press conference at the start of production would be sufficient. This proved to be inadequate.

### ***The consenting process***

While a movie of this scale will challenge any consenting process both locally and nationally, a lot will come down to simply engaging the relevant parties, like local Councils, as soon as possible. In this particular case it was found that many film activities were viewed by the local Council as 'temporary' in nature and therefore able to be dealt with within existing bylaws. The smoothness of the process, however, depends a lot on the goodwill and supportive nature of key bodies - which can either be a strength or a weakness within the New Zealand filmmaking context.

In this particular instance the level of service from the New Plymouth District Council was exceptional with their film friendly protocols working extremely well. This said, one area that proved to be relatively difficult for the Film Office was identifying tangata whenua issues of sacred ground. Iwi issues meanwhile are delicate and complex.

The same goes for dealing with the Department of Conservation, with issues over the preservation and protection of land needing to be managed proactively rather than waiting until the shoot is actually in progress. Establishing protocol early is important to provide a workable platform. Incoming production must be prepared to listen and accept these protocols - as it is in their best interests to have a smooth production.

### ***A champion for film in Central Government***

Studios believe they have the right to meet with senior Government officials - Cabinet Ministers in the New Zealand context - both inside and outside of business hours. The film industry believe that they are entitled to work outside standard bureaucratic controls and this is a risk that needs to be managed within New Zealand.

It would be helpful to have a Central Government expert dedicated to the production in the same way that the Deputy CEO for the New Plymouth District Council provided 24/7 support on this particular project. Currently INZ has a dedicated Investment Manager that fulfils this role possessing the right level of expertise and industry knowledge combined with access to a reasonably high-level Central Government network. What is required, however, is a clearer mandate with the authority to resolve issues. INZ For instance, was able to act as a conduit in order to process passports on-site. However, in New Zealand it is not deemed appropriate for officials to undertake political intervention at the highest level, but rather to identify risks and develop appropriate strategies.

### ***Do not over-promise***

New Zealand places its film strategy at risk if people that get involved in projects over-promise with the best intentions but at the end of the day do not have the authority to deliver. This comes back to the need to have a champion for film in Central Government and the importance of adopting a whole-of-Government approach to ensure the consistency across Government, industry and regional film offices.

### ***Promotion of the tourism industry***

Tourism New Zealand uses film and cultural tourism videos to promote New Zealand as a whole rather than as individual regions. Films are useful to raise awareness of New Zealand, though it is interesting to note that only 8% of overseas tourists surveyed said that 'The Lord of the Rings' was a factor in their decision to visit New Zealand.

In order to achieve greater opportunities for tourism promotion, it would be useful to have product that is readily linked to the images seen on the screen.

Understandably movie makers wish to protect their intellectual property prior to the release of the movie, and therefore tend to return sets to their original green field state.

In addition, sets are only constructed to survive the short term needs of the filming schedule, without any regard for longer term tourism potential.

There may be an opportunity when Governments are negotiating within the context of incentives, to give consideration as to how locations could be leveraged to maximise potential tourism revenue. A greater involvement by the New Zealand Tourism Board in the early stages of negotiations with the film companies could be advantageous.

A good example is the small Hobbiton village, which remained after the filming of LOTR, and has provided an attractive venue for tourists.



## 12 Conclusions

This report provides a methodology that allows the determination of the economic impact of a major film production. The ability to determine an approximation of a film spend that is actually credible and can be used to measure the effects of a film production is a major step in being able to justify support measures for the industry.

We can therefore be fairly comfortable when we state the film injected around NZ\$85 million into the national economy, of which around NZ\$50 million was captured by the Taranaki region.

The contentious nature of multipliers used to measure film impacts has also been addressed.

Breaking the expenditure down to specific industry components provided a more accurate representation of the impact of TLS on the region and the economy.

Multipliers were therefore broken down to the industry components and so the final multiplier was a proportional average of 14 separate industry multipliers. Unfortunately this means the multiplier cannot be applied to other films. However, a positive is that there is now a methodology to determine accurate multipliers for any film.

Taking the indicative budget expenditure and applying the multiplier analysis gives national gross output of NZ\$196 million, national GDP of NZ\$92 million and 1,403 full time jobs.

Out of the total spend Taranaki captured NZ\$69 million of the gross output, NZ\$33 million of the GDP, and 615 jobs.

TLS was a solitary independent project. It arrived, spent its money, produced its product, and then left. It provided a major boost to the economy and the region over the period that it was here. Once it left, nearly everything returned back to what it was before. What then were real benefits of the film production?

The majority of the spending and the services provided by the New Zealand suppliers were additional with little or no displacement effects. The only investment required by businesses was extra labour requirements and longer hours. There was a huge cash-flow injection that was used to retire debt or speed up the businesses existing development plans.

The breadth and the scope of the production meant the impact was felt by most businesses in the region. Fourteen industries were identified in the indicative budget, with thirteen affected in the Taranaki region. The film actually made a point of spreading its expenditure amongst businesses to ensure supply and to minimise negative impacts on the region. Businesses responded by taking what they could and sharing with other businesses if they could not meet TLS' needs. Businesses were always aware that this was a one-off event. They would take advantage of it while it was in town but were aware it would only last for a finite period.

The film brought optimism and raised the capability levels of the region. The film was an event the region was proud of and keen to support. The nature of the project meant businesses had to raise their game to provide the necessary services. This effect remains even after the film has moved on.

Awareness of the region and what it has to offer has improved. This is from the increased media attention placed on the region due to the film. Impacts range from the credibility

of Taranaki businesses through to increases in house prices, through to attractiveness as a place to live or visit. *"If it was good enough for Tom Cruise."*

From a national and a film industry perspective, every big budget film that has a successful shoot in New Zealand raises the profile and capability of the entire industry in New Zealand. Our reputation increases, our capability increases, our capacity increases. The risk profile improves.

Further as the capacity, capability and profile improves, the proportion of the spend captured within New Zealand increases. Film companies will use more local services and products and a greater proportion of the production will be captured within New Zealand.

One of the objectives of this report is to identify barriers and try to quantify the losses due to them. There were few barriers from the perspective of businesses within the region. There were lessons in terms of culture and expectations but these were welcomed and the lessons were learned quickly and taken on board. Businesses would like earlier information and better access to the appropriate decision makers which would allow them to improve their ability to provide the appropriate services. Otherwise they all considered that they did as well out of the film as they possibly could have.

The multipliers in themselves are not spectacular. They are slightly above average. Of more interest is the level of spend. Increasing spend from \$2m to \$10m is the same as having a multiplier of 5. If we could get production companies to utilise more local services then the impact would be greater. Rather than "How do we increase the multipliers?" the questions should be "In what areas could we have captured more of the spend?" and "How can we leverage more of the indirect and intangible benefits?"

From a total budget of around NZ\$180 million, NZ\$85 million is reasonable. There are opportunities around post production although whether there was a chance of capturing that is questionable. Similarly, "what do we do now that the filming is over?" is an important question to ask in regard to benefitting from the momentum built up.

The leverage required for the potential benefits is minimal. Looking at TLS as an example, a total gross output generated of NZ\$195 million for a direct investment by Venture Taranaki and the Taranaki community of around \$500,000 is pretty good leverage. Additionally the Government (such as NZTE and Investment NZ) and agencies (such as Film NZ) played a vital role in attraction and facilitation of the film, at a national level.

This economic impact study clearly shows that the broader connectivity of the screen production industry has far greater economic implications. Film projects can generate significant direct and indirect benefits for New Zealand in both regional and national terms. Over-and-above the economic benefit from project investment are the spillovers arising from the global connections made through film. The screen production industry is a: natural global showcase for New Zealand's talent, creativity and innovation; source of foreign direct investment and foreign exchange that creates jobs and infrastructure; and catalyst of opportunities for other key convergent sectors with growth potential such as hi-technology and gaming.

While the economic multipliers on The Last Samurai film project come in slightly above the average of previous studies undertaken, it is clear that there is the potential to improve on this result. There are lessons to be learned from this study which should provide useful input for future regional and national strategies around capturing, retaining and extending the financial and economic benefits of international film projects in New Zealand.

## Appendix A – References

*NZIER (2003)*. Scoping the lasting effects of The Lord of The Rings.

*Department of Commerce (2001)*. The migration of U.S. film and television production impact of “runaways” on workers and small business in the U.S. film industry.

## Appendix B – Interview List

Person Interviewed (Position)	Company	Interviewers
Ian Riley (director)	Millers Bar Taranaki Hire Riley Consultancy	Kel Sanderson; Jason Leung-Wai; Belinda Salmon
Kevin Jarvis (JV Partner)	Placemakers	Kel Sanderson; Jason Leung-Wai; Belinda Salmon
James Crichton (Director)	Tasman Toyota	Kel Sanderson; Jason Leung-Wai; Belinda Salmon
Paul Hansen (Director)	The French Cake Shop	Kel Sanderson; Jason Leung-Wai; Belinda Salmon
Chris Herlihy (Owner)	The Nice Hotel	Kel Sanderson; Jason Leung-Wai
Matt Newton (Pilot)	Taranaki Rescue Helicopter	Kel Sanderson; Peter Avery
Peter Mann (Operations Manager) David Wharram	Coronation Machinery	Jason Leung-Wai; Belinda Salmon
Peter Tennent (Mayor) Rory Palmer (Manager Corporate Policy & Planning) Frank Versteeg (Assistant Chief Executive)	New Plymouth District Council	Kel Sanderson; Peter Avery
Rodney Maiden (Sales and Service Manager)	Hookers Transport	Jason Leung-Wai; Belinda Salmon
Rob Needs (Owner)	Kiwi Outdoors	Kel Sanderson; Peter Avery; Jason Leung-Wai
Mark Louis (Owner)	Powderoom	Jason Leung-Wai; Belinda Salmon
Dr Shasi Patel (Partner)	Avenue Medical Centre	Kel Sanderson; Jason Leung-Wai
Sue and Spence Radcliffe (Owner)	Owners of Site of Samurai Village	Kel Sanderson; Jason Leung-Wai; Peter Avery
Jim (Owner)	Urenui 4-Square	Jason Leung-Wai; Peter Avery
Peter Sole (Owner)	Peter Sole Transport	Jason Leung-Wai
Coral Lambert (Manager)	Taranaki Mineral Pools	Jason Leung-Wai; Belinda Salmon
Jeremy Burton (Director)	UltraLounge	Kel Sanderson; Jason Leung-Wai; Belinda Salmon

68 – Ancillary Services to construction	Includes site preparation services; building structure services; installation trade services; building completion services; and other construction services.
70 - Retail Trade	Includes all units mainly engaged in the resale of new or used goods to final consumers for personal or household consumption or in selected repair activities such as repair of household equipment or motor vehicles. Businesses engaged in retail trade include department stores or other shops, motor vehicle retailers and service outlets, stalls, mail order houses, hawkers, door to door sellers, milk vendors, vending machine operators and consumer cooperatives
71 – Accommodation	Consists of hotels, motels and similar units mainly engaged in providing short-term activities.
72 - Bars, clubs, cafes and restaurants	Includes pubs taverns and bars; cafes and restaurants; and clubs (hospitality).
73 – Road freight transport	Road freight transport consists of units mainly engaged in the transportation of freight by road. It also includes units mainly engaged in renting trucks with drivers for road freight transport. Primary activities include delivery service, log haulage service; taxi truck service (with driver); furniture removal service; road freight transport service; truck hire service (with driver).
75 – Water and rail transport	Water transport includes international sea, coastal water and inland water transport. International sea transport consists of units mainly engaged in the operation of vessels for the transportation of passengers or freight by sea between domestic and foreign ports. Primary activities include: freight transport service; passenger transport service; ocean cruise services; ship management service for international sea transport; boat charter, lease or rental (with crew); passenger transport service; freight transport service; ocean cruise service; ship charter, lease or rental (with crew); vehicular ferry operation. Rail transport consists of units mainly engaged in operating railways for the transportation of freight or passengers, in operating railway terminal or depot facilities for receiving, despatching or transferring rail freight or cargo, or in providing services allied to railway transport nec.
76 - Air transport, services transport and storage	Includes air and space transport; other transport; services to road to transport; services to water transport; services to air transport; other services to transport and storage. Primary activities include: air transport service; aircraft charter, lease or rental (with crew); passenger transport service; air transport terminal operation; freight transport service. Service to transport and storage activity include: container terminal or park facilities provision; terminal facilities provision; ship loading or unloading service; stevedoring; port operation; harbour services; airport operation; airport services; travel agency services; road freight forwarding; customs agency services and warehousing.
77 - Communication services	Includes all units mainly engaged in providing postal, courier and telecommunication services.
79 – Insurance	Includes life insurance and superannuation funds; other insurance; services to finance and investment; and services to insurance.
81 - Property ownership and management and real estate	Includes property operators and developers real estate agents and non-financial asset investors
83 - Vehicle and equipment hire	Includes machinery and equipment hiring and leasing. This includes all motor vehicle hiring (without drivers); other vehicle leasing; plant hiring or leasing.
91 - Employment, security & investigative services	Includes employment placement services, contract staff services; secretarial services; and security and investigative services (except police).
108 - Motion picture, radio and TV services	Includes film and video production and distribution, motion picture exhibition; radio and television services.
113 - Personal and other community services	Includes video hire outlets; personal and goods hiring nec; laundries and dry cleaners; photographic film processing; funeral directors, crematoria and cemeteries; gardening services; hairdressing and beauty salons; and personal services nec.

## Appendix D – Multipliers

<b>Output (National)</b>	<b>direct</b>	<b>first Round</b>	<b>indirect</b>	<b>direct + indirect</b>	<b>induced</b>	<b>direct + indirect + induced</b>
Ancillary services to construction	1	0.47	0.41	1.88	0.67	2.55
Retail trade	1	0.41	0.33	1.74	0.76	2.51
Accommodation	1	0.46	0.43	1.89	0.61	2.5
Bars, clubs, cafes and restaurants	1	0.59	0.58	2.18	0.65	2.83
Road freight transport	1	0.51	0.39	1.9	0.65	2.55
Water and rail transport	1	0.36	0.24	1.61	0.54	2.15
Air transport, services to transport & storage	1	0.38	0.26	1.63	0.44	2.08
Communication services	1	0.3	0.2	1.49	0.46	1.95
Insurance	1	0.45	0.3	1.74	0.61	2.35
Property ownership and mgmt and real estate	1	0.37	0.28	1.64	0.38	2.02
Vehicle and equipment hire	1	0.38	0.27	1.65	0.46	2.1
Employment, security & investigative services	1	0.36	0.23	1.59	0.96	2.55
Motion picture, radio and TV services	1	0.37	0.25	1.62	0.62	2.23
Personal and other community services	1	0.4	0.29	1.69	0.92	2.61

<b>Employment (National)</b>	<b>direct</b>	<b>first Round</b>	<b>indirect</b>	<b>direct + indirect</b>	<b>induced</b>	<b>direct + indirect + induced</b>
Ancillary services to construction	9.29	3.17	2.39	14.86	4.38	19.24
Retail trade	14.94	2.65	2.02	19.61	5.02	24.63
Accommodation	17.09	2.27	2.72	22.08	4	26.09
Bars, clubs, cafes and restaurants	17.17	2.99	3.71	23.87	4.27	28.14
Road freight transport	5.88	3.75	2.54	12.17	4.26	16.44
Water and rail transport	3.78	1.94	1.47	7.19	3.56	10.75
Air transport, services to transport & storage	3.9	2.2	1.58	7.68	2.9	10.58
Communication services	4.53	1.81	1.22	7.57	3.01	10.57
Insurance	4.86	3.19	2.06	10.12	3.99	14.1
Property ownership and mgmt & real estate	4.72	2.38	1.72	8.83	2.5	11.33
Vehicle and equipment hire	4.51	2.74	1.69	8.93	3	11.93
Employment, security & investigative services	11.87	3.04	1.53	16.43	6.29	22.72
Motion picture, radio and TV services	4.8	2.66	1.64	9.09	4.05	13.14
Personal and other community services	23.41	3.39	1.9	28.71	6.07	34.77

<b>Value Added (National)</b>	<b>direct</b>	<b>first Round</b>	<b>indirect</b>	<b>direct + indirect</b>	<b>induced</b>	<b>direct + indirect + induced</b>
Ancillary services to construction	0.39	0.19	0.18	0.75	0.32	1.08
Retail trade	0.51	0.19	0.15	0.84	0.37	1.22
Accommodation	0.46	0.17	0.19	0.83	0.3	1.12
Bars, clubs, cafes and restaurants	0.33	0.22	0.26	0.81	0.32	1.13
Road freight transport	0.47	0.24	0.18	0.89	0.32	1.21
Water and rail transport	0.58	0.19	0.12	0.88	0.26	1.14
Air transport, services to transport & storage	0.38	0.17	0.12	0.67	0.21	0.89
Communication services	0.54	0.14	0.09	0.77	0.22	0.99
Insurance	0.45	0.25	0.15	0.85	0.29	1.15
Property ownership and mgmt & real estate	0.61	0.19	0.13	0.92	0.18	1.11
Vehicle and equipment hire	0.54	0.19	0.13	0.85	0.22	1.07
Employment, security & investigative services	0.61	0.2	0.11	0.93	0.46	1.39
Motion picture, radio and TV services	0.41	0.19	0.12	0.72	0.3	1.02
Personal and other community services	0.53	0.2	0.14	0.87	0.45	1.32

<b>Output (Taranaki)</b>	<b>direct</b>	<b>first Round</b>	<b>indirect</b>	<b>direct + indirect</b>	<b>induced</b>	<b>direct + indirect + induced</b>
Ancillary services to construction	1	0.21	0.06	1.28	0.17	1.45
Retail trade	1	0.19	0.06	1.25	0.22	1.48
Accommodation	1	0.19	0.07	1.27	0.16	1.42
Bars, clubs, cafes and restaurants	1	0.29	0.12	1.4	0.16	1.56
Road freight transport	1	0.3	0.1	1.4	0.18	1.58
Water and rail transport	1	0.19	0.05	1.24	0.15	1.39
Air transport, services to transport and storage	1	0.15	0.04	1.18	0.11	1.29
Communication services	1	0.11	0.03	1.14	0.12	1.26
Insurance	1	0.11	0.02	1.14	0.12	1.26
Property ownership and mgmt and real estate	1	0.16	0.04	1.21	0.1	1.3
Vehicle and equipment hire	1	0.19	0.05	1.24	0.12	1.36
Employment, security and investigative services	1	0.16	0.04	1.2	0.29	1.49
Motion picture, radio and TV services	1	0.14	0.03	1.17	0.16	1.33
Personal and other community services	1	0.19	0.05	1.24	0.28	1.51

<b>Employment (Taranaki)</b>	<b>direct</b>	<b>first Round</b>	<b>indirect</b>	<b>direct + indirect</b>	<b>induced</b>	<b>direct + indirect + induced</b>
Ancillary services to construction	8.93	1.65	0.4	10.98	1.15	12.12
Retail trade	14.94	1.32	0.36	16.63	1.46	18.09
Accommodation	17.09	1.14	0.47	18.7	1.05	19.75
Bars, clubs, cafes and restaurants	17.17	1.61	0.79	19.57	1.05	20.62
Road freight transport	5.88	2.44	0.71	9.04	1.18	10.21
Water and rail transport	3.78	1.02	0.3	5.1	1.01	6.11
Air transport, services to transport & storage	3.9	0.99	0.25	5.14	0.73	5.87
Communication services	4.53	0.76	0.17	5.46	0.81	6.27
Insurance	5.16	0.83	0.16	6.14	0.82	6.96
Property ownership & mgmt & real estate	5.48	1.11	0.26	6.85	0.65	7.49
Vehicle and equipment hire	4.51	1.54	0.32	6.36	0.77	7.14
Employment, security & investigative services	11.87	1.46	0.26	13.59	1.92	15.51
Motion picture, radio and TV services	4.8	1.12	0.21	6.13	1.08	7.21
Personal and other community services	23.41	1.72	0.34	25.47	1.82	27.3

<b>Value Added (Taranaki)</b>	<b>direct</b>	<b>first Round</b>	<b>indirect</b>	<b>direct + indirect</b>	<b>induced</b>	<b>direct + indirect + induced</b>
Ancillary services to construction	0.38	0.09	0.03	0.5	0.09	0.59
Retail trade	0.51	0.09	0.03	0.62	0.12	0.74
Accommodation	0.46	0.07	0.03	0.57	0.08	0.65
Bars, clubs, cafes and restaurants	0.33	0.1	0.06	0.49	0.08	0.57
Road freight transport	0.47	0.15	0.05	0.66	0.1	0.76
Water and rail transport	0.58	0.1	0.03	0.71	0.08	0.79
Air transport, services to transport & storage	0.38	0.07	0.02	0.47	0.06	0.53
Communication services	0.54	0.06	0.01	0.6	0.07	0.67
Insurance	0.51	0.06	0.01	0.58	0.07	0.65
Property ownership & mgmt & real estate	0.62	0.09	0.02	0.72	0.05	0.78
Vehicle and equipment hire	0.54	0.1	0.02	0.66	0.06	0.72
Employment, security & investigative services	0.61	0.09	0.02	0.73	0.16	0.88
Motion picture, radio and TV services	0.41	0.07	0.02	0.5	0.09	0.59
Personal and other community services	0.53	0.1	0.02	0.65	0.15	0.8

## Appendix E – Multiplier analysis explained

### Types of effects

#### **Direct effect**

Direct effects measure the expenditure directly associated with increase in activity undertaken. In the case of housing, this would include all expenditures made by homebuilders and all employees who work directly for builders. It measures the “upstream” or supplier effects on an industry. However, it only captures the effect of the initial and first round of expenditure. This is often referred to as a Type Ia effect.

#### **Indirect effect**

Indirect effects are impacts related to the flow-on effect of expenditure to supplier industries. It also measures the “upstream” or supplier effects on an industry and captures an infinite number of rounds of expenditure (i.e. from the second round up to the infinite round). This is often referred to as a Type Ib effect

#### **Induced effect**

Induced effects occur from the additional final household consumption demand resulting from the additional wages paid as a result of all the direct and indirect effects. It captures the “downstream” or demand impacts. This is often referred to as a Type II effect.

### Types of multipliers

#### **Gross Output multipliers**

Gross output is the value of production, built up through the national accounts as a measure, in most industries, of gross sales or turnover. This is expressed in \$ million at constant prices (i.e. removing the effect of inflation). Gross Output is made up of the sum of:

- *compensation of employees (i.e. salaries and wages);*
- *income from self employment;*
- *depreciation;*
- *profits;*
- *indirect taxes less subsidies;*
- *intermediate purchases of goods (other than stock in trade); and*
- *intermediate purchases of services.*

#### **Employment impact multipliers**

Employment impact multipliers determine the number of Full Time Equivalent (FTE) roles that are created for every \$1 million spent in an industry. It provides a measure of total labour demand associated with Gross Output.

#### **Value Added multipliers**

Value added multipliers measure the increase in output generated along the production chain, which, in aggregate, totals Gross Domestic Product (GDP).

Value added is made up as the sum of:

- *compensation of employees (i.e. salaries and wages);*
- *income from self employment;*
- *depreciation;*
- *profits; and*
- *indirect taxes less subsidies.*

### **Limitations of multiplier analysis**

#### **Partial equilibrium analysis**

Multiplier analysis is only a “partial equilibrium” analysis, assessing the direct and indirect effects of the development being considered, without analysing the effects of the resources used on the wider national and regional economy.

In particular, it assumes that the supply of capital, productive inputs and labour can expand to meet the additional demand called forth by the initial injection and the flow on multiplier effects, without leading to resource constraints in other industries. These constraints would lead to price rises and resulting changes in overall patterns of production between industries.

To assess inter-industry impacts in full would require economic modelling within a “general equilibrium” framework. Applying such models becomes more relevant where the particular development is considered significant within the overall economy.

#### **Additionality**

Related to partial equilibrium, using multipliers for economic impact assessments assumes that the event is something that would not have been undertaken anyway and that it will not displace existing activity. That is, the event is additional to existing activity. If it does either of the above, then the economic impact is less than that determined by the multiplier and it would be necessary to subtract both the activity that would have occurred anyway and the displacement effect.

#### **Impact**

Again related to “partial equilibrium”, multiplier analysis assumes that an event will not have an impact on relative prices. However, in a dynamic environment, it can be assumed that a large event would have an impact on demand and supply and hence prices. Hence, the larger the event and the more concentrated it is in a single industry or region, the more likely it is that the multipliers would give an inaccurate analysis of impacts. For example, if multiplier analysis was used to determine the effect of residential building construction nationally it would likely be inaccurate as residential building construction accounts for over 6 percent of GDP.

#### **Aggregation**

Industries outlined in input output tables are aggregates of smaller sub-industries. Each sub industry has unique inputs and outputs. The higher the level of aggregation the less accurate these inputs and outputs become. Thus, if determining the multiplier effect of a very specific event using highly aggregated data, there will be a lower level of accuracy. Similarly if an event encompasses a range of industries and multipliers from a single industry are applied the accuracy levels will diminish.

### ***Regions and boundaries***

The smaller or less defined a region and its boundaries the less accurate the multiplier analysis will be. Similarly, the easier it is to move across boundaries the less accurate the analysis will be. For example, at the national level the multipliers will be very accurate as it is easy to determine the inputs and outputs crossing through the New Zealand borders.

Similarly it would also be fairly easy to determine a north island/south island split. As smaller regions without obvious geographic boundaries are selected then a higher level of assumptions need to be made and the multipliers become less accurate. For example, an individual could work in the Auckland region but live in the Waikato region and spend a large proportion of his/her recreation money in the Bay of Plenty region.

For any regional analysis the level of accuracy will have to be accepted. As a rule of thumb, the larger and more defined the region, the more accurate the analysis will be.



### **Business and Economic Research Limited (BERL)**

BERL is a privately-owned independent New Zealand company based in Wellington. It provides a range of business and economic advice to both public and private sector clients.

BERL was established in 1958 and continues to strive for leading edge economic and business analysis and solutions that serve the practical needs of clients.

BERL has a wealth of experience and knowledge on a range of disciplines and areas in the economics field. Recent projects undertaken by BERL have focussed on:

- *regional economic development strategies (with ongoing work on securing potential benefits from major regional initiatives);*
- *economic impact assessments (especially of regional industries, facilities, attractions and events); and*
- *projections and policy analysis (for example, ceasing wood harvesting on the West Coast, the release of GMOs, and impacts of school reviews).*

BERL has a history of assessing and facilitating regional development and infrastructure initiatives. BERL is also a respected economic forecasting house and has released quarterly forecasts of the New Zealand economy since its inception in 1958.



## Appendix G – Taranaki business survey

A copy of the survey form is included below for your reference. The full survey results can be found at [www.taranaki.info](http://www.taranaki.info)

### The Last Samurai Economic Impact Survey

Reference Table for Question 3

Contractor	Any relationship with the film company that involved invoicing the company directly (i.e., for undertaking a service, providing a product including house rental).
Sub-contractor	Any products or services provided to an organisation under a contract relationship with the film company.
Crew	Employed by the film company to work on the set (including 'extra' actors, technical crew, servicing crew etc.)
Indirect	Any organisation that did not have any of the above relationships with the film company, but benefited indirectly from the film coming to Taranaki. For example, increased sales from an influx of Japanese actors in the region purchasing local goods and services.
Other	Any other relationship not categorised above.

#### Introduction

1. Were you aware of The Last Samurai film company in Taranaki? (circle number)  
 No .....1 (go to Q16)  
 Yes .....2 (go to Q2)
2. Do you believe the presence of the film company in Taranaki had a financial impact on you or your business? (circle number)  
 Not a business.....1 (go to Q3)  
 No .....2 (go to Q16)  
 Yes .....3 (go to Q3)
3. What affect do you think the film had on:
  - a) The regional economy
    - Negative impact .....1
    - No impact .....2
    - Positive impact .....3
  - b) Your industry
    - Negative impact.....1
    - No impact.....2
    - Positive impact.....3

#### Relationship with the film company

4. What was the nature of your relationship with the film company? (see above table for correct definition) (circle number)  
 Contractor .....1 (go to Q5)  
 Sub-Contractor .....2 (go to Q5)  
 Crew .....3 (go to Q5)  
 Indirect .....4 (go to Q7)  
 Other (please specify) .....5 (go to Q7)  
 \_\_\_\_\_  
 \_\_\_\_\_

5. What did you provide to the film? (circle number)  
 Product .....1  
 Service.....2  
 Please specify \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. Please quantify the approximate total financial value of your entire relationship with the film company?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Financial Impact**

7. What was the financial impact of the film coming to Taranaki on your business sales (or personal income if not a business)? (circle number)
- Decreased sales/income.....1
  - No change in sales/income.....2
  - Up to 5% increase in sales/income.....3
  - 6-10% increase in sales/income.....4
  - 10% - 20% increase in sales/income.....5
  - 20% + increase in sales/income.....6
  - Don't know/other .....7
8. Did you employ any extra personnel as a result of the film coming to Taranaki? (circle number)
- Not a business .....1
  - No .....2
  - Yes .....3
- If yes, please specify how many
- 

**Capability Impact**

9. Were there any areas where you or your business needed additional training to meet the needs of the film company? (circle number)
- No .....1
  - Yes .....2
- If yes, what were the types of skills that you required additional training in:
- 
- 
- 
- 
10. Do you believe you now have the capabilities to service the film industry? (circle number)
- No .....1
  - Yes .....2
- If yes, are you actively promoting your product or service to the film industry nationally and internationally?
- No .....1
  - Yes .....2
- If yes, please specify
- 
- 
- 

**Information**

11. Did you promote your product or services directly to the film company? (circle number)
- No .....1
  - Yes .....2
- If yes, how did you go about doing this?
- 
- 
- 
12. What information would you find useful to help you promote your product or service to a film company that you did not have access to this time?
- 
- 
- 
- 
- 

**Marketing**

13. Is your business registered on Venture Taranaki's film servicing database? (circle number)
- Not a business .....1
  - No .....2
  - Yes .....3
- If no, you can register at this address under production services:  
[www.filmventuretaranaki.com](http://www.filmventuretaranaki.com)
14. Would you be interested in receiving information from Venture Taranaki on the film industry? (circle number)
- No .....1
  - Yes .....2
- If yes, please detail your name and contact email/postal address:
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**Investment**

15. Did you gain additional income due to the film company coming to Taranaki? (circle number)

- No ..... 1
- Yes ..... 2

If yes, did you invest the money in an activity/object/venture that you would have otherwise not been able to do? (i.e. holiday, business expansion, build, new car, boat etc) (circle number)

- No ..... 1
- Yes ..... 2

If yes, please specify your investment

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**Inviting ideas**

16. What ideas do you have to market the region as a film destination?

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17. What ideas do you have to maximize the opportunities resultant from the global launch of the film?

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**Business Details**

18. What form is your business? (circle number)

- Not a business..... 1
- Company ..... 2
- Sole Trader ..... 3
- Partnership..... 4
- Trust ..... 5

19. Please indicate which of the following activities is closest to the main activity of your business? (circle number)

- Not a business..... 1
- Ag/ horticulture, fishing, forestry ..... 2
- Mining, oil/gas exploration ..... 3
- Manufacturing (basic fab. metals) ..... 4
- Other forms of manufacturing ..... 5
- Electricity, gas, water supply ..... 6
- Building/ construction..... 7
- Retail/ wholesale trade..... 8
- Restaurant, accommodation..... 9
- Transport, communications..... 10
- Business, property (including rental) financial services ..... 11
- Health, education..... 12
- Government agency, social services..... 13
- Other (please describe below) ..... 14

20. Please indicate approximately how many people work in your Taranaki based business:

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21. Where are you located? (circle number)

- New Plymouth District..... 1
- South Taranaki/Hawera..... 2
- Stratford ..... 3
- Throughout Taranaki ..... 4

**Other**

22. Do you have any general comments/ stories regarding your experience with the film company?

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Please post the survey back by 30th September in the supplied free-post envelope.

This research report has been analysed and prepared by Belinda Salmon, BBS (Marketing), Research Co-ordinator for Venture Taranaki. Reviewed by Anne Probert, BBS (Hons) MBS DBS, Economic Development Director and Peter Avery, Film Commissioner, Film Venture Taranaki.



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