

Economic contribution of Wellington International Airport

Wellington International Airport Limited

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Authors: Connor McIndoe, Hugh Dixon, and Hillmarè Schulze

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Executive summary

Gateway to central New Zealand

Wellington International Airport is the only international airport in central New Zealand. It is a vital point of connectivity for Wellington, as well as the whole region, stretching from Hawke's Bay to Marlborough. It bridges the gap between countries and local destinations, cities, and communities. Wellington International Airport Limited (WIAL) not only facilitates the movement of people and goods but also supports education, trade, tourism, and investment as well as fosters business and cultural exchange.

WIAL facilitated and contributed \$2 billion to regional gross domestic product (GDP)

This report updates and expands on the 2018 Business and Economic Research Limited (BERL) economic analysis and provides a more up-to-date estimate of the total economic contribution that WIAL facilitates and supports in the Wellington regional economy in 2024.

Table 1 Overall economic impact of WIAL, 2024

	Direct	Indirect	Induced	Total
Expenditure (\$m)	2,222	984	708	3,913
GDP (\$m)	1,124	472	409	2,004
Employment (FTEs)	9,568	2,939	1,996	14,503

It is estimated that WIAL has provided a strong contribution to the economy, with total spend of \$3.9 billion in the region, generating a total of \$2 billion in GDP, and supporting total employment of 14,503 FTEs. This overall contribution is a combination of the operating and capital expenditure of WIAL, the operations of businesses operating under WIAL, and activity generated by domestic and international visitors.

An additional one million passengers have the potential to create \$208 million worth of GDP

If an additional one million passengers were to travel via Wellington International Airport, we estimate it would bring additional direct spend (expenditure) of \$217 million to the Wellington regional economy. This spend would ultimately contribute \$208 million to total GDP, supporting a total of 1,719 FTEs.

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1 Introduction

Business and Economic Research Limited (BERL) was commissioned by Wellington International Airport Limited (WIAL) to provide an estimate of the economic value that the airport, passengers travelling through the airport, and associated WIAL businesses contribute to the Wellington regional economy. This research updates analysis completed by BERL in 2018.

1.1 Approach

BERL undertook an economic impact assessment (EIA) to determine the level of economic activity that is both generated and facilitated by WIAL in the wider Wellington region. We have measured the impact in terms of output (expenditure), GDP, and employment (as measured by FTEs). Our analysis determines the economic impact of the operating and capital expenditure of WIAL, the operations of businesses operating under WIAL, and activity generated by domestic and international passengers. Collectively, these three components form the overall economic impact of WIAL. In addition, we also provide an analysis of the economic impact that an additional one million passengers would deliver to the Wellington region.

Multiplier analysis is used to determine the additional, or flow-on, economic activity that the airport generates (see Appendix C).

Our approach largely follows the methodology applied in 2018, with one key distinction being the inclusion of domestic passenger spend. Therefore, expanding what is analysed under the economic impact of passengers. In some components, we have also changed data sources to more up-to-date and/or robust data. See Appendix B for the methodology and data sources used.

2 The role of airports in connectivity

Airports are often described as significant engines of economic development and growth for surrounding regions and communities. They act as a critical point of connectivity between local cities, regions, and other countries. This connectivity is integrated into many aspects of the economy, from facilitating the movement of people and goods to supporting education, trade, tourism, and investment, as well as fostering business and cultural exchange.

Studies consistently show a positive link between airports and economic prosperity (Zhang & Xie, 2023; Florida et al. 2015). Specifically, studies have shown that growth in an airport, or airport expansion, with increased air service can contribute to higher levels of employment growth. Brueckner et al. (2003) found that a ten percent increase in passenger numbers can result in a one percent increase in employment in service-related industries. Bloningen & Cristea (2015) and Sheard (2014) also found a positive relationship between air service, airport size, and employment in service and trade-related services.

2.1 Wellington region's international gateway

As central New Zealand's only international airport, Wellington International Airport is the international gateway not only for the Wellington region but also for the wider surrounding regions from Hawke's Bay to Marlborough. The airport's wider catchment area serves approximately a quarter of New Zealand's total population and economic activity.

Understanding the wider Wellington regional economy provides insight into the diverse and critical role that the airport plays in the region. Beyond facilitating the movement of people for tourism purposes, WIAL is critical for creating cultural and business exchanges, both domestically (for example, between two of New Zealand's major urban hubs, Auckland and Wellington) and internationally. It also acts as an important gateway for international students wanting to study at Wellington-based tertiary institutions and for international performers bringing their shows to Wellington and the region.

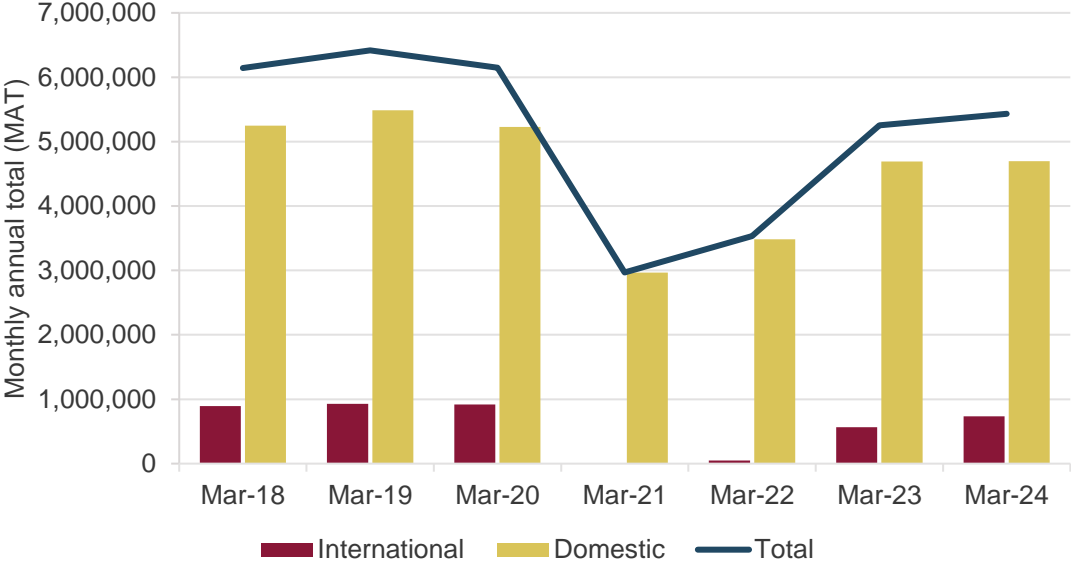
Businesses that operate on and around the WIAL campus also play a supporting role in the regional economy. While the primary role of WIAL is to facilitate the movement of people and goods, the associated businesses of WIAL generate spending and additional economic activity, mostly from passengers as well as other consumers. Ultimately, this spending supports employment at these businesses, leading to wages and salaries, which can further be spent in the regional economy.

2.2 Wellington airport passenger numbers

In the year ended March 2024, annual international and domestic passengers totalled just over 5.43 million. International passengers accounted for 733,900 of this, with the remaining 4.7 million comprising domestic passengers.¹

¹ These figures differ from estimates used in the analysis of this report as the EIA uses unique passenger estimates rather than total passenger counts.

Figure 1 WIAL passenger numbers, year ended March 2018-2024



Source: WIAL

The initial impact of COVID-19 was severe and had an immediate effect on travel, specifically international travel, with national and global lockdowns and the closure of borders. Importantly, however, five years after the containment measures of COVID-19, domestic and international travel have recovered strongly. Domestic travel in the year to March 2024 was operating at 89 percent of March 2019 levels, and international travel was at 82 percent. It is important to view the analysis in this report within this context; for example, if passengers had fully recovered to 2019 levels, the economic activity created would be approximately 10 to 15 percent higher.

3 Contribution to the Wellington regional economy

The following section presents the economic impact of WIAL. We analyse the contribution of WIAL's impact on expenditure, GDP, and employment (FTEs) in the Wellington region for the year ended March 2024. Our analysis presents the economic impact through the following components:

- Operating and capital expenditure of WIAL (Section 3.2)
- Operations of businesses operating under WIAL (Section 3.3)
- Activity generated by domestic and international passengers (Section 3.4).

Collectively, these three components form the overall economic impact of WIAL (Section 3.1).

A detailed methodology has been included in Appendix B, with further information about multiplier analysis in Appendix C.

3.1 Total economic impact of WIAL

In 2024, the total expenditure from the core operations of WIAL, associated WIAL businesses, and airport passengers was estimated at \$3.9 billion, contributing \$2 billion to GDP and supporting 14,503 FTEs.

Table 2 Overall economic impact of WIAL, 2024

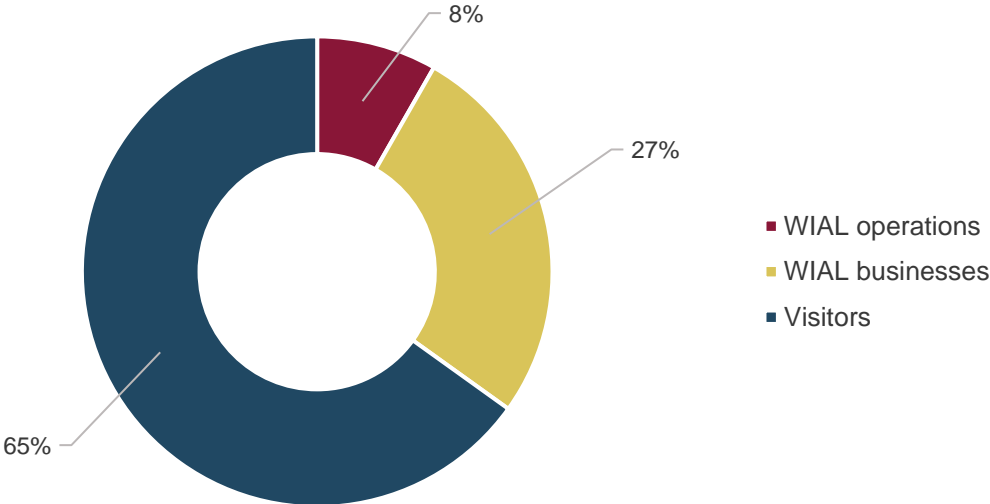
	Direct	Indirect	Induced	Total
Expenditure (\$m)	2,222	984	708	3,913
GDP (\$m)	1,124	472	409	2,004
Employment (FTEs)	9,568	2,939	1,996	14,503

The direct expenditure resulting from the core operations of WIAL, associated WIAL businesses, and airport passengers was estimated at \$2.2 billion. This initial expenditure creates a flow-on effect, generating additional flows of expenditure across the wider economy. These additional flows (indirect and induced) combined with the direct expenditure mean that the total estimated expenditure was \$3.9 billion. Similarly for GDP and employment, with a direct GDP contribution of \$1.1 billion and direct FTEs of 9,568, considering the flow-on effect, the total GDP contribution increases to \$2 billion and total FTEs of 14,503.

For example, the cost of accommodation in Wellington for international visitors leads to revenue in the accommodation industry (the direct effect). Accommodation providers within this industry, in turn, use part of this revenue to purchase goods (e.g., cleaning products) or services (e.g., cleaners) through their suppliers (the indirect effect). Additionally, some of this revenue is turned into wages and salaries for employees of the accommodation provider as well as employees of their suppliers. These people, after tax is deducted, spend money on consumption (e.g., buying groceries) in the Wellington economy (the induced effect).

Passengers accounted for the largest component of WIAL total contribution to GDP in the Wellington region at 65 percent (Figure 2). Associated WIAL businesses followed behind, accounting for just over a quarter of WIAL total contribution to GDP.²

Figure 2 Share of each components contribution to total GDP supported, 2024



Source: BERL analysis

WIAL’s overall economic contribution represents approximately 4.4 percent of the Wellington region’s total GDP and 5.1 percent of employment in the region. Additionally, the GDP contribution of \$2 billion from WIAL was equivalent to around \$3,850 per capita in the Wellington region.

Previous economic impact assessment (2018)

In 2018, BERL estimated that WIALs total GDP contribution was \$1.1 billion, and total FTEs supported across the Wellington region were approximately 11,000.

Given the assessment included in this report has been expanded to include the economic activity generated from domestic visitors, which was not included in the 2018 report, the two reports are not directly comparable. With this in mind, the 2018 report can be regarded as a conservative estimate as it did not consider the strong economic activity created from domestic visitors travelling via Wellington International Airport.

Another key difference between the two reports is that this report applies an up-to-date set of multipliers to more accurately estimate the current economic contribution. We can, however, compare the direct contribution made as multipliers do not affect these results.

² Each components share of total expenditure and employment (FTEs) can be found in Appendix D.

Change since 2018

Table 3 compares the *direct* economic contribution of WIAL between 2018 and 2024 (with and without domestic visitors' contribution).³ The direct contribution of WIAL (including domestic visitors) is provided solely for additional context but is not directly comparable with the 2018 assessment.

Table 3 Change in WIAL direct economic contribution, 2018-2024

Direct	2018	2024 (excl. domestic visitors)	Change (%)	2024 (incl. domestic visitors)
Expenditure (\$m)	1,244	1,412	13.5	2,222
GDP (\$m)	623	688	10.3	1,124
Employment (FTEs)	7,102	4,989	-29.8	9,568

If we exclude domestic visitors and only compare the direct contributions, WIAL directly injected more expenditure into the Wellington regional economy in 2024 compared to 2018, up to \$1.4 billion from \$1.2 billion, and generated more in GDP (an increase of \$64 million), while the amount of employment directly supported dropped significantly. Employment (as measured by FTEs) directly supported through WIAL decreased 30 percent between 2018 and 2024.

The key observation behind this result is that the same level of expenditure in 2024 no longer supports the same amount of employment as it would have in 2018. That is, the level of output that would have supported 100 FTEs in 2018 would only support approximately 82 FTEs in 2024. This is largely a consequence of wage inflation over the past five years.

³ See Appendix B for explanation and methodology behind expanding the analysis to include domestic visitors.

3.2 Economic contribution of WIAL core operations

3.2.1 Impact of WIAL operating expenditure

In 2024, the operating expenditure (OPEX) of WIAL totalled \$116 million, of which \$86 million was determined to be within scope of our assessment. Included in this expenditure were payroll, administration, consultancy costs, maintenance, promotion and incentives, and interest paid.

The OPEX of \$86 million contributed to generating \$60 million in direct GDP for the Wellington region, with payroll expenditure directly supporting 129 FTEs. As the initial expenditure multiplies throughout the economy, flow-on effects are created, resulting in a contribution of \$79 million towards GDP in the Wellington region, supporting a total of 523 FTEs.

Table 4 Economic impact of WIAL operating expenditure, 2024

	Direct	Indirect	Induced	Total
Expenditure (\$m)	86	33	25	145
GDP (\$m)	60	6	14	79
Employment (FTEs)	129	288	106	523

The total economic impact of WIAL OPEX has increased between 2018 and 2024 in parallel with an increase in OPEX, specifically expenditure towards payroll. This has resulted in the total contribution to Wellington GDP improving from \$55 million in 2018 to \$79 million in 2024.

3.2.2 Impact of WIAL capital expenditure

Capital expenditure (CAPEX) can fluctuate drastically from year to year, depending on the number and size of both small- and large-scale projects being constructed and completed. For example, an initial large-scale expenditure on constructing a new terminal will produce an immediate impact while also creating an ongoing impact throughout the construction period. The result of this is that CAPEX in some years may be significantly higher than previous years. Additionally, COVID-19 was an unusual period for CAPEX.

In recognition of this and to provide a more accurate representation of what a “usual” year would reflect, we averaged the forecasted CAPEX of WIAL over five years from 2025 to 2029, resulting in a direct CAPEX of \$113 million. The total impact of WIAL CAPEX is a contribution of \$86 million to GDP, supporting a total of 581 FTEs.

Table 5 Economic impact of WIAL capital expenditure, 2024

	Direct	Indirect	Induced	Total
Expenditure (\$m)	113	69	31	212
GDP (\$m)	40	29	18	86
Employment (FTEs)	261	225	95	581

The direct capital expenditure used in the 2024 analysis is higher than the direct capital expenditure in 2018 (up from \$72 million to \$113 million). This is also coupled with a change in the underlying expenditure patterns, with the distribution towards different purposes changing over time. Ultimately, this has led to more economic activity being generated from WIALs capital expenditure.

3.3 Economic contribution of WIAL businesses

There are more than 100 businesses and entities that operate directly on the WIAL airport campus and extended campus. These associated businesses cover a range of industries, from airline services to retail stores, restaurants, cafes, transport services, government agencies, and wholesalers.

Using a combination of the survey BERL conducted and supplemented data provided directly by WIAL, BERL estimated that the associated businesses of WIAL directly account for more than 1,600 FTEs. This includes close to 1,000 full-time employees and close to 100 part-time employees, with the remainder made up of casual and contracting employees. Revenue that is created from the spending activity generated by the associated businesses of WIAL, in part, provides wages and salaries for the more than 1,600 FTEs to then spend locally in the Wellington region.

Taking into account the flow-on effects of the economic activity created by the associated businesses of WIAL, the total impact of the businesses includes \$534 million towards GDP, with around a further 1,500 FTEs supported on top of the 1,600 FTEs directly employed (total of 3,125 FTEs). This is a significant component of the overall economic impact of WIAL.

Table 6 Economic impact of businesses associated with WIAL, 2024

	Direct	Indirect	Induced	Total
Expenditure (\$m)	650	307	185	1,141
GDP (\$m)	275	152	107	534
Employment (FTEs)	1,624	933	568	3,125

There has been a considerable increase in the economic impact of businesses associated with WIAL between 2018 and 2024. The driving factor behind this increase is the higher levels of direct employment supported by the associated businesses of WIAL, increasing from 1,342 FTEs in 2018 to 1,624 in 2024.

3.4 Economic contribution of passengers

Economic activity generated by domestic and international passengers comprises the third component of WIAL's total economic contribution to the Wellington regional economy. Compared to the other two components of our economic assessment, estimating the economic contribution of passengers is more complex. There are three parts in this component:

- International visitors
- International students
- Domestic visitors.⁴

Appendix B includes a detailed methodology explaining our approach to determining the economic contribution of each part.

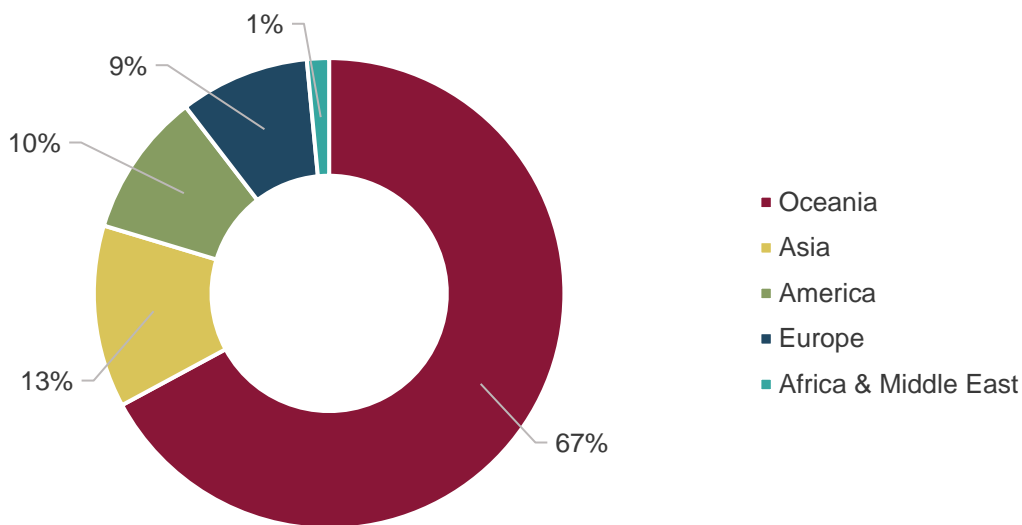
⁴ It is important to note that the economic contribution of domestic visitors was not included in the previously completed 2018 research.

3.4.1 International visitor expenditure

International visitor numbers

In 2024, it was estimated that around 234,700 unique international visitors travelled through Wellington International Airport either directly via an international terminal or through a domestic terminal (e.g., international via Auckland to Wellington). This includes just under 134,900 visitors coming to visit friends and relatives, 44,300 for leisure, and just over 55,600 for business purposes. The majority of these visitors came from Oceania (67 percent), specifically Australia, with a further 13 percent coming from Asia (Figure 3).

Figure 3 International visitors by region, year ended March 2024



Source: BERL analysis

Economic contribution

Over the course of their stay in the Wellington region, international visitors will spend money on accommodation, food and beverages, and retail stores.⁵

In 2024, the direct expenditure from the more than 234,700 international visitors was \$375 million.⁶ Once we take into account the multiplier effect of this initial spend, the total impact of international visitors coming through WIAL results in \$352 million towards Wellington regional GDP, supporting a total of 3,109 FTEs in the region.⁷

⁵ See Appendix B for the determined spend profile of international visitors.

⁶ Our analysis only includes spending that occurs in the Wellington region from international visitors.

⁷ This research has not considered the potential zeroing-out effect of inflows and outflows of spending from Wellington resident international passengers leaving via Wellington International Airport and taking their spend outside of Wellington (and New Zealand), versus international visitors arriving via Wellington International Airport and bringing their spend to the Wellington region.

Table 7 Economic impact of international visitors to WIAL, 2024⁸

	Direct	Indirect	Induced	Total
Expenditure (\$m)	375	158	132	665
GDP (\$m)	197	79	76	352
Employment (FTEs)	2,341	422	346	3,109

Although the number of international visitors coming through WIAL dropped between 2018 and 2024, the direct expenditure from these visitors and the resulting contribution to Wellington regional GDP increased. Direct expenditure was \$29 million higher, and total GDP generated by international visitors increased by \$22 million. This indicates the more high-value nature of these passengers, with smaller numbers of visitors spending more money and, ultimately, on average, generating more economic activity. A continued recovery of international travel will see the contribution of international visitors further improve.

Meanwhile, between 2018 and 2024, the total number of FTEs supported by international visitors fell by 1,616. This is the result of considerable wage inflation and the same level of expenditure supporting less employment than it did in 2018.

3.4.2 International students

There were an estimated 4,280 international students studying in the Wellington region in 2024, compared to almost double this in 2018, with nearly 8,500 international students.⁹ Tertiary-level international student numbers across the nation have dropped drastically as a result of COVID-19, as well as more students opting to study completely online rather than in-person.

For the 4,280 international students studying in the Wellington region in 2024, their direct spending, mostly on tuition fees and living costs, was estimated at \$188 million. This has dropped significantly from direct expenditure of \$310 million in 2018 and close to 8,500 international students.

Table 8 Economic impact of international students, 2024

	Direct	Indirect	Induced	Total
Expenditure (\$m)	188	71	42	302
GDP (\$m)	116	32	24	173
Employment (FTEs)	634	163	111	908

The multiplier effect of international students' direct expenditure in 2024 results in a total contribution of \$173 million towards GDP in the Wellington region and a total of 908 FTEs supported. Again, this has dropped from \$292 million of GDP and 2,687 FTEs in 2018.

Importantly, international student numbers, although still much lower than 2018, are trending upwards since the initial drop from COVID-19 in 2020 and 2021. As these numbers continue to

⁸ Total GDP generated can be lower than total expenditure as not all spending translates into GDP (e.g., spending on imports).

⁹ Derived from Ministry of Education data. See Appendix B for full methodology.

grow, WIAL’s role as an international gateway, particularly for tertiary providers based in Wellington, will remain critical for supporting additional economic activity in the region.

3.4.3 Domestic visitor expenditure

In addition to facilitating the movement of international visitors and students into the Wellington region, WIAL also facilitates the movement of domestic passengers.¹⁰

Domestic passengers include Wellington residents returning to Wellington via Wellington International Airport, non-Wellington residents transferring through Wellington International Airport to a different airport (e.g., Auckland to Wellington to Christchurch), and non-Wellington residents travelling to Wellington via Wellington International Airport (domestic visitors).

Our analysis includes only the economic contribution created by domestic visitors.¹¹ Domestic visitors are an important aspect of WIAL’s role in the Wellington regional economy, specifically in regard to facilitating domestic tourism (including business exchanges). These domestic visitors can include, for example, domestic tourism, with a family flying from Dunedin to Wellington to see a show and stay for the weekend; and business exchanges, with business representatives flying from Auckland to Wellington to meet with government agencies.

In 2024, there were an estimated one million domestic visitors from other regions of New Zealand that travelled to Wellington via Wellington International Airport.¹² Direct expenditure (spend) from domestic visitors in the Wellington region totalled \$810 million. This level of spending directly supported 4,579 FTEs and generated GDP of \$436 million in the Wellington region.

Table 9 Economic impact of domestic visitors, 2024¹³

	Direct	Indirect	Induced	Total
Expenditure (\$m)	810	347	293	1,449
GDP (\$m)	436	174	170	780
Employment (FTEs)	4,579	907	770	6,257

The \$810 million direct expenditure from domestic visitors flows throughout the wider Wellington regional economy, leading to additional expenditure that generates a total GDP of \$780 million, supporting a total of 6,257 FTEs across the region.

¹⁰ This research has not considered the potential zeroing-out effect of inflows and outflows of spending from Wellington resident domestic passengers leaving via Wellington International Airport and taking their spend elsewhere, versus non-resident domestic visitors arriving via Wellington International Airport and bringing their spend to the Wellington region.

¹¹ See Appendix B for full methodology.

¹² This estimate is derived from data of total domestic passenger numbers supplied by WIAL and analysis undertaken of the Domestic Growth Insight Tool (DGIT) to determine the split of domestic passengers that are Wellington residents versus non-locals. It assumes that approximately 50 percent of all domestic passengers are Wellington residents and therefore are excluded from the economic contribution of domestic visitors.

¹³ The economic impact of domestic visitors was not included in the previously completed 2018 research.

4 Impact of an additional one million passengers

The following section presents the economic contribution that an additional one million passengers through Wellington International Airport would generate for the Wellington regional economy. Such a scenario would be broadly consistent with a full recovery to pre-COVID-19 levels of passenger numbers. We analysed and measured the additional passenger contribution on expenditure, GDP, and employment (FTEs) in the Wellington region.

Our analysis replicated the methodology used in Section 3.4, applying the same international and domestic visitor type and spend profile to only one million passengers.¹⁴

4.1 Economic boost of an additional one million passengers

The ability for an additional one million passengers to travel via Wellington International Airport will provide a boost in economic activity for the Wellington regional economy. Of the additional one million passengers, close to 184,000 will be domestic visitors, and just over 43,000 will be international visitors.¹⁵

These visitors will bring an estimated direct spend (expenditure) of \$217 million to the Wellington regional economy, including spending towards accommodation, food, and retail. Domestic visitors that are non-Wellington residents would account for approximately \$149 million of the estimated spend, with the remainder coming from international visitors (\$69 million).

A total of 1,270 FTEs will be directly supported from the expenditure of these visitors, and a direct contribution of \$116 million will be made to GDP in the Wellington regional economy.

Table 10 Economic impact of an additional one million passengers

	Direct	Indirect	Induced	Total
Expenditure (\$m)	217	93	78	388
GDP (\$m)	116	46	45	208
Employment (FTEs)	1,270	244	205	1,719

As this level of spend flows throughout the wider Wellington regional economy, total GDP generated by the initial direct spend of the 184,000 domestic visitors and 43,000 international visitors will equal \$208 million, supporting a total of 1,719 FTEs in the Wellington region.

¹⁴ The key assumption for this scenario is that the additional one million passengers represent the current mix of passengers.

¹⁵ The remaining numbers of passengers would include, for example, Wellington residents travelling domestically and internationally. Our analysis focuses on unique domestic (non-local) and international visitors who bring spend with them.

Appendix A References

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Appendix B Methodology

The objective of an EIA is to estimate the increase in the level of economic activity in a region caused by an activity, project, or investment – or in this case, WIAL. The overall economic impact can be estimated by taking into account three economic effects: direct, indirect, and induced effects. These effects can be measured regionally or nationally using input-output (IO) multipliers (see Appendix C for an explanation of multiplier analysis).

For our economic assessment of WIAL, our analysis presents the direct, indirect, and induced impacts by the following components:

- Operating and capital expenditure of WIAL
- Operation of businesses operating under WIAL
- Activity generated by domestic and international visitors
- Activity generated by international students.

Each component requires its own EIA. Collectively, these three components form the overall economic impact of WIAL. The impact set out in this report is based on the year ending March 2024.

Operating and capital expenditure

Determining the economic impact of WIALs core operations required understanding the level of OPEX and CAPEX of WIAL.

- WIAL supplied BERL with OPEX data for the year ended March 2024. Depreciation was excluded.
- WIAL supplied BERL with CAPEX data for the five years between March 2025 and March 2029. As CAPEX can fluctuate drastically from year to year, depending on the number, size, and timing of projects being undertaken and completed, CAPEX data was averaged over the five years. Furthermore, forward-looking data (rather than the five years to March 2024, which covers a period affected by COVID-19) was supplied as it was determined to be a more appropriate reflection of WIAL CAPEX.

Businesses operating on extended campus

WIAL supports a number of businesses and entities that operate both directly on the airport campus and on other WIAL-owned land. Of the more than 100 businesses and entities, industries and sectors covered include airline services, baggage handlers, retail stores, restaurants, cafes, transport services, government agencies, and wholesalers.

To understand the economic impact of these businesses, we used a direct employment multiplier calculation based on employment estimates obtained via a survey of WIAL businesses. BERL conducted this survey, which was supplemented by data provided directly from WIAL. The direct employment multiplier indicates the amount of employment that is created by \$1 million of gross

output in an industry. For example, if an industry created ten FTEs for every \$1 million of gross output, the direct employment multiplier would be ten.

Facilitating the flow of visitors

Determining the economic impact of passenger flows requires careful consideration. For our analysis, we disaggregated by international visitors, international students, and non-resident domestic visitors.

International visitors

In determining the direct expenditure of international visitors, we first determined, by country of origin, counts for international visitors via international terminal and international visitors via domestic terminal (e.g., international to Auckland to Wellington). Our estimate of the number of international visitors was derived from passenger counts supplied by WIAL. In 2024, we estimated that around 234,700 international visitors travelled to Wellington via Wellington International Airport.

Using the international visitor survey (IVS), we further differentiated visitors by purpose of travel (visiting friends and relatives, leisure, and business.) to better assign spend and stay profiles.

To then obtain an estimate of the total spend by our visitor categories, we adopted a hybrid average spend value combining data from the IVS, regional tourism estimates (RTEs), accommodation data program (ADP), and research into the share of Airbnb guest nights (Infometrics, 2017). This resulted in average spend amounts for international visitor types of:

- Visiting friends and relatives: \$1,029
- Leisure: \$2,454
- Business: \$2,296.

We then needed to determine the split of this spend between industries in order to assign spending within our EIA model. We adopted a spend ratio from analysis of the IVS and RTEs to determine the amount visitors typically spend in different industries:

- Accommodation: 15 percent
- Cultural, recreation, and gambling services: 13 percent
- Food and beverage serving services: 29 percent
- Other passenger transport: seven percent
- Other tourism products: 13 percent
- Retail sales – alcohol, food, and beverages: five percent
- Retail sales – fuel and other automotive products: three percent
- Retail sales – other: 15 percent.

This spending profile was applied to an overall estimate of the total amount of spending from international visitors.

International students

To determine the direct expenditure of international students requires first estimating the number of international students studying in Wellington in 2024. Our approach followed the same methodology as used in the 2018 report, which was based on numbers from *Economic Impact of Export Education on the New Zealand Economy*, but adjusted counts using more up-to-date and robust data available. Furthermore, spending from international students was adjusted for inflation.

Our updated counts were sourced from the Ministry of Education using data that disaggregated students by level of education. We then applied the same expenditure profile, adjusting the expenditure amount for inflation.

Domestic visitors

In the 2018 analysis completed by BERL, the economic impact of domestic visitors was not included in the assessment of WIAL's economic contribution to the Wellington region. In this research, we expanded our methodology to include the economic contribution that is created from domestic visitors travelling to Wellington via Wellington International Airport. This is based on the fact that domestic visitors, which includes New Zealanders that are non-Wellington residents travelling via Wellington International Airport and not immediately transferring to another region, are a significant and key passenger group in WIALs passenger mix.

Our approach to estimating the number of domestic visitors first required differentiating between local (Wellington residents) and non-local (non-Wellington residents) domestic passengers.

We applied an estimate derived from analysis of the Domestic Growth Insights Tool (DGiT) on total domestic passenger numbers provided by WIAL to determine the split between local and non-local passengers.¹⁶ Our estimate assumed that 50 percent of all domestic passenger numbers were locals and therefore were excluded from our analysis on the economic impact of domestic visitors. This resulted in an estimate of just over one million unique domestic visitors.

The next step was to apply an average spend amount and profile to our estimate of domestic visitors. Our analysis draws on numbers from the RTEs and ADP to determine an expenditure profile, average nights stayed, and overall average spend. The results from analysis of the RTEs are a determined average spend for domestic passengers of \$850 with average guest nights per visitor of approximately two.

An important consideration in this analysis is the number of domestic visitors that are only day trippers. For example, this could include an Auckland resident that travels to Wellington in the morning via Wellington International Airport for business meetings and later travels back to Auckland via Wellington International Airport. We have assumed that 25 percent of domestic visitors are day trippers and that the average spend of day trippers is 30 percent of the determined domestic visitor spend.

¹⁶ Retrieved from; <https://www.dgit.nz/>

Appendix C Multiplier analysis

Multiplier analysis allows us to determine the direct, indirect, and induced effects in terms of output, GDP, and FTEs. Multipliers are derived from IO tables for the Wellington region.

Measures

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. Gross output is made up of the sum of:

- Compensation of employees (i.e., salaries and wages)
- Income from self-employment
- Profits
- Indirect taxes less subsidies
- Intermediate purchases of goods (other than stock in trade)
- Intermediate purchases of services.

Value added (GDP) multipliers

Value added multipliers measure the increase in output generated along the production chain which, in aggregate, totals GDP. Value added is made up of the sum of:

- Compensation of employees (i.e., salaries and wages)
- Income from self-employment
- Profits
- Indirect taxes less subsidies.
- Employment impact multipliers.

Employment impact multipliers determine the number of FTE roles that are created for every \$1 million spent in an industry for one year. It provides a measure of total labour demand associated with gross output.

An FTE is the percentage of time an employee works represented as a decimal. A full-time position is 1.00; a part-time position is 0.50.

Direct, indirect, and induced effects

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

- The industry purchases materials and services from supplier firms, who in turn make further purchases from their suppliers. This generates an indirect (upstream) effect.

- People employed directly at a business, 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. These are the induced (downstream) effects.

Hence, for any amount spent in an area (direct effect), the actual output generated from that spend is greater once the flow-on activity generated (indirect and induced effects) is taken into account.

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 the 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 EIAs 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 therefore 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 multiplier 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 six 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.

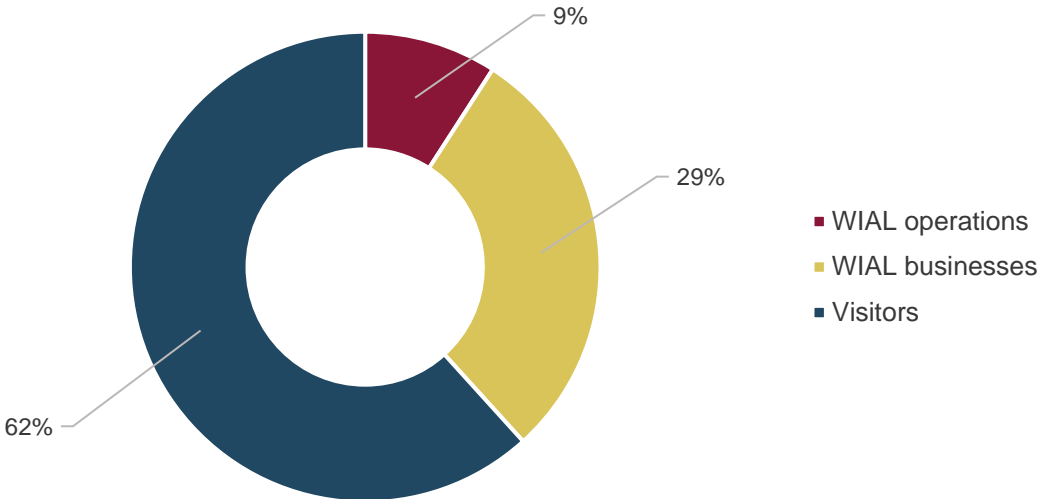
It would also be more accurate to determine a North Island/South Island split. As smaller regions without obvious geographic boundaries are selected, a higher level of assumptions needs to be made and the multipliers become less accurate. For example, an individual could work in the Auckland region but live in the Waikato region and spend a large proportion of their 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.

Appendix D Extended graphs

The following section presents extended figures of analysis completed. Figure 4 indicates that spending from passengers (visitors) represented the largest component of total expenditure generated by WIAL at 62 percent.

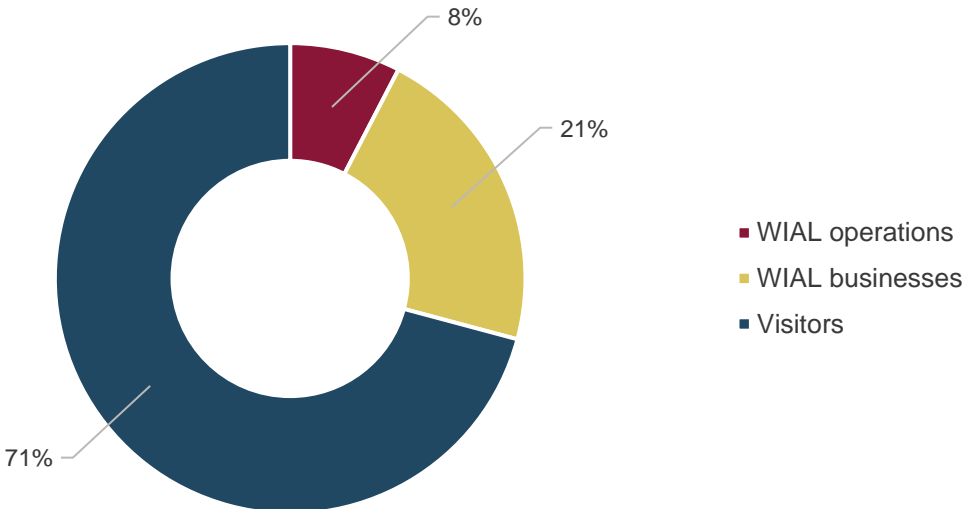
Figure 4 Share of each components contribution to total expenditure generated, 2024



Source: BERL analysis

At a more pronounced level, visitors accounted for the largest share of total employment supported by WIAL at 71 percent.

Figure 5 Share of each components contribution to total employment supported, 2024



Source: BERL analysis