
Attachment 3

BENCHMARKING OF INTERNATIONAL AIRPORTS' RELATIVE EFFICIENCY

ASSESSMENT OF AIRPORT USING FINANCIAL AND OPERATIONAL BENCHMARKS USING MULTI-ATTRIBUTE ASSESSMENT

Introduction

1. This Attachment presents an analysis of the financial and operational performance of AIAL compared to other major international airports around the world. It provides evidence that AIAL is an efficiently run enterprise by benchmarking performance statistics against other comparable international airports.

The Application of Benchmarks to Airports

2. Benchmarking airport performance using selected productivity measures is widely used in the airport industry. Productivity measures attempt to show the relationship between inputs and outputs, or the average cost of an input. Such measures include, for example, passengers per employee and operating costs per passenger.
3. Benchmarking of productivity measures should be interpreted with care. Whilst they provide a general indication of comparative efficiency, benchmarks do not necessarily fully reflect all the trade-offs between inputs and outputs. For example, an airport could improve labor productivity by substituting labor with capital or by contracting out more labor-intensive functions.
4. When benchmarking financial information for airports, particularly on a global basis, it should be understood that every airport is unique. Each airport has a unique set of financial and operational factors that directly affect performance indicators, including:
 - **The operating cost environment.** Airports in different parts of the world face different operating cost environments. Labor costs, benefits requirements, the strength of labor unions, and prevalence of outsourcing opportunities vary widely. For example, airports in Scandinavia face a high labor cost environment compared to those in Australasia;
 - **The mix of air traffic.** Airports with high levels of international traffic typically exhibit high peaking characteristics. Airports need to develop facilities to accommodate peaks. For example, airports with a higher percentage of long-haul international passengers may have more complex terminal facilities (developed to accommodate peaking characteristics);
 - **The commercial environment.** The local commercial environment and passenger mix substantially dictate the strength of an airport's commercial program, and the extent to which it can generate revenues from non-aeronautical activities. For example, an airport in a high-tax environment may find that commercial revenues per passenger (owing mainly to duty-free revenues) are higher than for an airport in a low-tax environment;
 - **Capital expenditures.** The scale of the capital program underway at an airport will have a significant impact on operating and depreciation expenses at the airport. Airport operating expenses are often driven up by the disruption caused by major capital programs. High levels of capital spending will lead to high depreciation expenses;
 - **Age of facilities.** Older facilities typically require higher maintenance expenditures, and are often inherently more costly and inefficient than newer facilities. On the other hand, depreciation expense for airports with a preponderance of older facilities will be lower than the equivalent expense for airports with newer facilities;
 - **Currency exchange rates.** Fluctuations in exchange rates render direct comparison of costs and revenues difficult; and
 - **Accounting conventions.** The treatment of financial data, including operating expenses, depreciation, and taxes, is determined in part by the laws and accounting standards of the country in which an airport is located. These vary from country to country.

5. Notwithstanding the above, however, it is generally instructive to look at a range of productivity measures for an airport. While conclusions cannot be drawn based on any single measure, it is possible to draw general conclusions on an airport's efficiency when a range of measures is simultaneously evaluated. Consequently, when attempting to draw conclusions regarding airports' relative performance based on benchmarking data, indications of overall performance at a high level can realistically be determined.

Benchmarking Total Airport Performance

6. The TRL Report titled Airport Performance Indicators, 2000 contains a section on "Measuring Total Performance". In this section of its report, TRL attempts to estimate the overall performance of an airport by quantifying a single measure. The technique used by TRL is known as multi-attribute analysis, and involves combining a number of performance measures as a weighted sum. The steps in the process are as follows:
- Several airport performance measures are identified, which provide a cross-section of airport performance in various areas (financial return, cost efficiency, revenue per unit of throughput, etc.);
 - A determination is made regarding the direction of relative performance (i.e., for a given measure, is a higher level better than a lower level, or vice versa);
 - Each airport is given a relative score under each of the measures selected. The score is between 0 and 1, with 1 representing the "best" result for the measure, and 0 representing the "worst" result for the measure; and
 - Each of the measures is then given a weighting, and a weighted average across all the measures is calculated for each airport.
7. TRL applied this methodology to a sample of 29 airports. The measures it used were (1) return on capital employed, (2) concession revenues per passenger, (3) aeronautical revenues per air traffic movement (ATM), (4) work load units (WLUs) per unit of asset value, (5) work load units (WLUs) per employee, and (6) operating cost per passenger. TRL found that Auckland Airport was in the group ('clique') of airports that had the second-highest level of overall performance.

Extension of TRI Multi-Attribute Analysis Benchmarking

8. Leigh Fisher were commissioned by AIAL to review the benchmarking methodology (using multi-attribute analysis) used by TRL and to provide an independent report on the benchmarking measures which Leigh Fisher believed to be most informative in assessing overall airport performance.

Their report states that their analysis was conducted from the viewpoint of airlines, with the measures selected being those that airlines would view as being the most important in measuring airport performance. Their analysis relied on the information and performance statistics reported by TRL. Independent verification of this information was outside the scope of their engagement. Financial information for each airport was converted from the local currencies to Special Drawing Rights (SDRs); a 'common' unit based on the trade-weighted values of a group of major currencies from the G7 nations.

Using TRL data, Leigh Fisher's analysis used a variety of different weightings for the measures, and developed a ranking of AIAL against the other airports. The airports used for comparison were essentially those included by TRL in their original multi-attribute analysis, with the exception that Leigh Fisher excluded Hong Kong and Macau (both of which are new airports), as well as Honolulu (which eliminated landing fees for approximately two years, potentially skewing the results). Thus, Leigh Fisher included 26 airports in their analysis.

9. Leigh Fisher analysed these airports in three categories:
- 1 Airports that were identified by TRL as being part of the same "clique" as Auckland Airport. A clique was defined by TRL as being airports that have similar levels of performance to each other. There are 7 airports in the same clique as AIAL;

- 2 Airports that were identified by TRL as being part of the same “group” as Auckland Airport. A group was defined by TRL as the (pair of) cliques that had airports with broadly similar levels of performance. There are 13 airports in the same group as AIAL; and
 - 3 All 26 airports in the sample.
10. The airports included under each category are shown in Table 1.

Table 1**AIRPORTS INCLUDED IN MULTI-ATTRIBUTE ANALYSIS**

Clique (7 airports)	Group (13 airports)	Full Sample (26 airports)
Adelaide	Adelaide	Adelaide
Auckland	Auckland	Auckland
Copenhagen	Copenhagen	Copenhagen
London-Gatwick	London-Gatwick	London-Gatwick
Los Angeles (a)	Los Angeles (a)	Los Angeles (a)
Perth	Perth	Perth
Stockholm	Stockholm	Stockholm
	Brisbane	Brisbane
	Johannesburg	Johannesburg
	Melbourne	Melbourne
	Sydney	Sydney
	Vancouver	Vancouver
	Washington-National (a)	Washington-National (a)
	Amsterdam Group	
	Calgary	
	Capetown	
	Frankfurt	
	London-Heathrow	
	Manchester	
	Miami (a)	
	Munich	
	Ontario (a)	
	San Francisco (a)	
	Singapore	
	Vienna	
	Washington-Dulles (a)	

(a) Airport located in the United States

Note: “Clique” and “Group” as identified by the Transport Research Laboratory, *Airport Performance Indicators, 2000*, Pages 77 to 81.

- 11 The full 26-airport sample represents airports that use both the single till and dual till approach to aeronautical pricing, and are further characterised as having, for the most part, a high level of international traffic (similar to Auckland), and except for the U.S. airports as having the requirement to strive for a commercial return on investment.

Measures Used in Multi-Attribute Analysis

12. The measures identified by Leigh Fisher for use in the analysis follow the definition of terms included in the TRL report, and can be segmented into four main categories:
- Measures that relate to **operational expenses** of an airport. Three measures are identified in this category - (1) operating and personnel expenses per passenger, (2) total expenses per passenger, and (3) total expenses per air traffic movement (ATM);
 - Measures that relate to **revenues** of an airport. Two measures are identified in this category - (4) aeronautical revenue per passenger, and (5) commercial revenues per passenger;
 - Measures that relate to the **financial return** of the airport. One measure is identified in this category - (6) return on assets; and
 - Measures that relate to investment in **physical facilities** of the airport. Two measures are identified in this category - (7) capital expenditures (CapEx) per passenger, and (8) total assets per passenger.
13. The eight measures are described in further detail below. In each case, comments are included about the direction of performance that would be viewed as favorable, particularly from the viewpoint of the airlines.
1. **Operating and personnel expenses per passenger.** The day-to-day cash operating expenses of an airport, measured on a per passenger basis. This measure does not include depreciation, which is a function of the extent and age of physical facilities at an airport. Airports can substitute contracted services for directly employed personnel, so the sum of operating and personnel expenses was used because it encompasses both of these items. The lower this measure, the more cost-effective management is in operating the airport on a day-to-day basis.
 2. **Total expenses per passenger.** Total operational expenses of the airport, including cash operating expenses as well as depreciation, measured on a per passenger basis. This measure encompasses the total annual expense of operating an airport, including charges associated with the use of facilities (but excluding finance charges). The lower this measure, the more cost-effective management is in operating the airport.
 3. **Total expenses per ATM.** Total operational expenses of the airport, including cash operating expenses as well as depreciation, measured on a per ATM basis. This is an alternative measure to measure #2 (total expenses per passenger). The lower this measure, the more cost-effective management is in operating the airport.
 4. **Aeronautical revenues per passenger.** The revenues generated from the airlines measured on per passenger basis. The lower this measure is, the better from an airline's viewpoint.
 5. **Commercial revenues per passenger.** The revenues generated by the airport from commercial activities (e.g., terminal concessions). The higher this measure is, the more effective the airport is in diversifying revenues, and generating revenues from non-aeronautical activities.
 6. **Return on assets.** A measure of the financial return of the airport. This is calculated as net income divided by total assets. While the financial markets would view a higher value for this indicator as being positive, for purposes of this analysis we assume that a lower value is positive. From an airline's perspective, this would imply that the airport is not earning excessive profits.
 7. **Capital expenditures (CapEx) per passenger.** A measure of an airport's annual investment in airport facilities, measured on a per passenger basis. An argument can be made that either maximizing or minimizing this statistic is favorable. In general, an airport needs to invest in facilities regularly to meet the needs of growing traffic as well as to replace facilities reaching the end of their useful lives. From an airline point of view, aeronautical facility investment should provide enhanced facilities for its use, while investment in non-aeronautical facilities should allow the airport to enhance its non-aeronautical revenue stream. High levels of CapEx could, however, imply excessive investment in unneeded facilities. The approach to this measure was to assume that being close to the mean for all airports in the sample is positive, while deviating from the mean, either on the high side or the low side, is negative.

8. **Total assets per passenger.** A measure of total airport assets, expressed on a per passenger basis. Again, a case could be made that either minimising or maximising this statistic is favorable. Low levels of assets per passenger could imply under investment in facilities over the years, and resulting congestion for both the airlines and the passengers. High levels for this statistic could imply that an airport has over invested in facilities, or developed facilities that are not justified by the level of traffic at the airport. The approach to this measure (as described above for the CapEx per passenger measure) was to assume that being close to the mean for all airports in the sample is positive, while deviating from the mean, either on the high side or the low side, is negative.
14. The approach to ranking performance for measure #7 (CapEx per passenger) and measure #8 (total assets per passenger) is valid because, across a number of airports (most of which have the requirement to make a commercial return on investment), one would expect that instances where there has been chronic under-investment, or unjustified over-investment, in facilities would be cancelled out. This implies that the mean for these measures across several airports is an appropriate yardstick to use.
15. In general, the eight measures that were chosen for the analysis represent a cross section of the financial and operational aspects of an airport enterprise. In conducting financial analysis and benchmarking studies for airports around the world, these are measures that are typically reviewed and evaluated. Taken as a whole, they represent a comprehensive cross-section of airport activities for benchmarking purposes. While other measures could have been used, it is not likely that the results of the analysis would be meaningfully different from those discussed in this Attachment.
16. The eight measures, and the direction of positive performance for each one, are summarised as follows:

Measure	Direction of Positive Performance
1. Operating and personnel expenses per passenger	Minimize
2. Total expenses per passenger	Minimize
3. Total expenses per ATM	Minimize
4. Aeronautical revenues per passenger	Minimize
5. Commercial revenues per passenger	Maximize
6. Return on assets	Minimize
7. CapEx per passenger	Minimize deviation from mean
8. Total assets per passenger	Minimize deviation from mean

Overall Results of Multi-Attribute Analysis

17. As indicated above, the multi-attribute analysis was conducted on these eight measures for the sample airports (including Auckland Airport) in three categories - (1) the "clique" of seven airports, (2) the "group" of 13 airports, and (3) the full sample of 26 airports.
18. A variety of weightings for each of the measures was tested. In all, 23 separate tests were conducted. Initially tests were carried out using each of the four evaluation categories independently - (1) operational expenses, (2) revenues, (3) financial return, and (4) investment in physical facilities. Tests were then carried out using a combination of the four categories. The weightings for each of the 23 tests are shown in Table 2.

MULTI-ATTRIBUTE ASSESSMENT SUMMARY OF WEIGHTING OF MEASURES FOR EACH TEST								
Test	MEASURES					DISTANCE FROM MEAN (Absolute Value)		
	Operating + personnel expenses per passenger	Total expenses per passenger	Total expenses per ATM	Aeronautical revenues per passenger	Commerical revenues per passenger	Return on assets	CapEx per passenger	Total assets per passenger
OPTIMIZATION	Minimize	Minimize	Minimize	Minimize	Maximize	Minimize	Minimize	Minimize
Expenses								
Test #1	100.0%	0.0%	0.0%					
Test #2	0.0%	100.0%	0.0%					
Test #3	0.0%	0.0%	100.0%					
Test #4	50.0%	25.0%	25.0%					
Test #5	0.0%	50.0%	50.0%					
Test #6	33.3%	33.3%	33.3%					
Revenues								
Test #7				100.0%	0.0%			
Test #8				0.0%	100.0%			
Test #9				50.0%	50.0%			
Financial return								
Test #14						100.0%		
Physical facilities (assets/CapEx)								
Test #15							100.0%	0.0%
Test #16							0.0%	100.0%
Test #17							50.0%	50.0%
Test #18							25.0%	75.0%
Test #19							75.0%	25.0%
Combination (expenses/revenues)								
Test #10	0.0%	25.0%	25.0%	25.0%	25.0%			
Test #11	50.0%	0.0%	0.0%	25.0%	25.0%			
Test #12	50.0%	0.0%	0.0%	50.0%	0.0%			
Test #13	0.0%	25.0%	25.0%	50.0%	0.0%			
Combination (all measures)								
Test #20	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Test #21	25.0%	0.0%	0.0%	25.0%	0.0%	25.0%	25.0%	0.0%
Test #22	0.0%	12.5%	12.5%	25.0%	0.0%	25.0%	12.5%	12.5%
Test #23	0.0%	12.5%	12.5%	12.5%	12.5%	25.0%	12.5%	12.5%

19. When selecting the weightings, Leigh Fisher adopted an “airline bias” - giving higher weightings to the measures which airlines would likely deem most important. Under each test, Auckland Airport was ranked against the other airports (from 1 = most favorable rating; to 7, 13, or 26 = least favorable rating, depending on the sample size tested).
20. A second set of rankings was obtained for each test, in which the six U.S. airports (Los Angeles, Washington-National, San Francisco, Washington-Dulles, Miami, and Ontario) were omitted. The reason for this was that the U.S. airports do not have a requirement to strive for a commercial rate of return on investment.
21. The results of the analysis are shown in Table 3, and can be summarised as follows:

- **Expenses.** Under all six of the tests involving **expenses**, Auckland Airport ranked very favorably. When measured against other airports in its clique, Auckland Airport consistently ranked second. When rated against other airports in its group (already identified by TRL as being the second highest performing group), Auckland ranked between **3rd** and **5th** out of **13** airports. When rated against the **full sample** of airports, Auckland ranked between **5th** and **7th** out of **26** airports. This implies that Auckland is highly cost efficient when compared with other major airports around the world;
- **Revenues.** Under the three tests involving **revenue** measures, Auckland ranked between **14th** and **16th** (of **26** airports in the full sample), and between **9th** and **14th** (of **20** airports, excluding the U.S airports). Auckland Airport ranked better in tests that gave a higher weighting to the aeronautical revenues per passenger. This bolsters the findings of the other recent report prepared by Leigh Fisher documenting a detailed comparison of aeronautical charges at approximately 50 airports around the world.

That report found that Auckland Airport ranks lower than average in terms of aeronautical rates and charges;

- **Financial Return.** Auckland Airport was in the middle ranking of airports for **the return on assets** measure (**3rd** of **6** non-U.S. airports in the clique; **6th** of **11** non-U.S. airports in the group; **10th** of **20** non-U.S. airports in the full sample). In view of the fact that there is a tension between the airlines and the financial markets in terms of whether this measure should be minimized or maximized, AIAL management appears to have taken a prudent course by ensuring that the measure ranks in the middle of the range. This implies that AIAL management is achieving a return on investment that is in line with global industry averages, and **not earning excessive profits**;

- **Physical Facilities.** In general, Auckland Airport scored **higher than average** under the 5 tests involving **CapEx per passenger** and **assets per passenger** (between **1st** and **3rd** of 7 clique airports; between **1st** and **4th** of 13 group airports, and between **7th** and **14th** of 26 airports in the full sample). This implies that, under both measures, Auckland Airport tends to be **close to the industry mean for both measures**; and
- **Combination of factors.** When 4 tests were conducted involving both **expense and revenue measures**, Auckland Airport ranked **better than average** when compared to the full sample of airports (between **9th** and **11th** of 26 airports in the sample, or between **6th** and **9th** of 20 non-U.S. airports.) When **measures across the entire spectrum** (incorporating expenses, revenues, financial return, and physical facilities) were tested, Auckland Airport **ranked highly**. Under the four tests which combined various measures, Auckland ranked between **2nd** and **3rd** of 7 airports in its clique; between **4th** and **6th** of 13 airports in its group; and between **7th** and **8th** of 26 airports in the full sample (6th of 20 airports if the U.S. airports are omitted from the sample.)

Table 3

**MULTI-ATTRIBUTE ASSESSMENT
SUMMARY OF RESULTS**

Test	AUCKLAND INTERNATIONAL AIRPORT RANKING					
	Versus Clique		Versus Group		Versus All Airports	
	Including U.S. Airports (of 7)	Excluding U.S. Airports (of 6)	Including U.S. Airports (of 13)	Excluding U.S. Airports (of 11)	Including U.S. Airports (of 26)	Excluding U.S. Airports (of 20)
Expenses						
Test #1	2	2	5	5	6	6
Test #2	2	2	5	5	7	7
Test #3	2	2	3	3	5	5
Test #4	2	2	5	5	6	6
Test #5	2	2	5	5	7	7
Test #6	2	2	5	5	7	7
Revenues						
Test #7	4	3	9	7	14	9
Test #8	5	5	8	7	17	14
Test #9	6	5	10	8	16	11
Financial return						
Test #14	3	3	7	6	15	10
Physical facilities (assets/CapEx)						
Test #15	3	3	4	4	14	11
Test #16	1	1	1	1	7	6
Test #17	2	2	2	2	8	6
Test #18	1	1	1	1	9	8
Test #19	2	2	3	3	12	9
Combination (expenses/revenues)						
Test #10	3	3	8	7	9	8
Test #11	3	3	8	7	7	6
Test #12	4	3	9	7	10	9
Test #13	4	3	9	7	11	9
Combination (all measures)						
Test #20	2	2	3	3	7	6
Test #21	3	3	6	5	8	6
Test #22	3	3	6	5	8	6
Test #23	3	3	5	4	8	6

Trend in Performance Over Time (Comparison with 1999 Data)

22. Because events and circumstances can affect individual airport performance in any given year (e.g. extraordinary operating expenses, unusually high or low levels of CapEx), the analysis was expanded to cover information contained in TRL's 1999 Report on *Airport Performance Indicators*. That report contained similar information to the 2000 report, based on airports' prior fiscal year (which was generally 1997-98). Comparing airports' performance over a two-year period should provide more comprehensive and balanced conclusions than analysis of a single year.
23. The same type of multi-attribute assessment analysis was conducted on the data contained in TRL's 1999 Report. The same sample of airports was used, with the exception that three airports - Melbourne, Miami, and Manchester - were not included in the 1999 report. Consequently, while the "clique" of airports was identical, the "group" of airports used for comparative purposes included 12 airports instead of 13 (Melbourne being omitted), and the full sample was 23 airports instead of 26 (Melbourne, Miami, and Manchester being omitted). As before, 23 separate tests were conducted, using the same distribution of weights used before, as set out in Table 2.
24. The results of the 1999 Report analysis are summarized in Table 4. Overall, Auckland Airport attained a similarly high ranking to that discussed earlier for the 2000 Report data. When measures across all categories of evaluation were included (as shown in Tests #20 through #23), Auckland Airport ranked between 6th and 8th of 23 airports in the full sample, versus 7th or 8th of 26 airports using the 2000 Report data, discussed earlier.
25. One area in which Auckland Airport exhibited improved rankings from 1999 to 2000 was in the area of cost efficiency. As shown in Tests #1 through #6, the airport ranked between 2nd and 4th of the 7 airports in its clique based on data in the 1999 TRL Report. Auckland uniformly ranked 2nd under the same 6 tests using data in the 2000 TRL Report. Compared to its group, Auckland Airport ranked between 5th and 7th of 12 airports using the 1999 Report data, and improved to between 3rd and 5th of 13 airports using the 2000 Report data. Compared to the full sample, Auckland Airport ranked between 6th and 9th of 23 airports using the 1999 Report data, and improved to between 5th and 7th of 26 airports using the 2000 Report data.

MULTI-ATTRIBUTE ASSESSMENT SUMMARY OF RESULTS						
Test	AUCKLAND INTERNATIONAL AIRPORT RANKING					
	Versus Clique		Versus Group		Versus All Airports	
	Including U.S. Airports (of 7)	Excluding U.S. Airports (of 6)	Including U.S. Airports (of 13)	Excluding U.S. Airports (of 11)	Including U.S. Airports (of 23)	Excluding U.S. Airports (of 20)
Expenses						
Test #1	2	2	5	5	6	6
Test #2	2	2	5	5	7	7
Test #3	2	2	3	3	5	5
Test #4	2	2	5	5	6	6
Test #5	2	2	5	5	7	7
Test #6	2	2	5	5	7	7
Revenues						
Test #7	4	3	9	7	14	9
Test #8	5	5	8	7	17	14
Test #9	6	5	10	8	16	11
Financial return						
Test #14	3	3	7	6	15	10
Physical facilities (assets/CapEx)						
Test #15	3	3	4	4	14	11
Test #16	1	1	1	1	7	6
Test #17	2	2	2	2	8	6
Test #18	1	1	1	1	9	8
Test #19	2	2	3	3	12	9
Combination (expenses/revenues)						
Test #10	3	3	8	7	9	8
Test #11	3	3	8	7	7	6
Test #12	4	3	9	7	10	9
Test #13	4	3	9	7	11	9
Combination (all measures)						
Test #20	2	2	3	3	7	6
Test #21	3	3	6	5	8	6
Test #22	3	3	6	5	8	6
Test #23	3	3	5	4	8	6

Additional Comparisons Using ACI Data

26. Further evidence that Auckland Airport is a well-run, efficient operation can be gleaned from the report titled "ACI Airport Economics Survey", prepared annually by ACI. Its latest report released in **December 2000** covers global airport financial and operational data for 1998, and presents results by region (Africa, Asia/Pacific, Europe, Latin America/Caribbean, Middle East, and North America) as well as in total.
27. In all, 526 airports responded to ACI's survey, including 162 airports in the Asia/Pacific region. As shown below, data for Auckland Airport can be compared to the Asia/Pacific region and the global averages. (All figures are expressed in United States dollars, the reporting measure used in the ACI Report. The comparative figures shown for AIAL are for FY 2000, converted to U.S. dollars.)

	Aeronautical revenues per passenger	Nonaeronautical revenues per passenger	Total revenues per passenger	Expenses per passenger
Global average	6.24	6.79	13.03	8.53
Asia/Pacific region	8.08	10.56	18.64	11.98
Auckland International Airport	4.60	4.75	9.35	5.19

28. This shows that **Auckland Airport compares favorably** with both **global averages** and the **benchmark averages** for airports in the Asia/Pacific region in terms of aeronautical revenues per passenger and expenses per passenger.

Overall Conclusions

29. The multi-attribute assessment prepared by TRL (which indicated that Auckland Airport was in the **second-highest performing group of airports** among **29** airports tested), combined with the extension of the multi-attribute assessment analysis conducted by Leigh Fisher, and the analysis of ACI data, all provide evidence of AIAL's favourable (efficient) performance vis-à-vis its global peer airports in terms of overall financial and operational performance and cost efficiency.
30. As indicated earlier in this Attachment, benchmarking airport performance is an inexact science. Generally, it is not possible to draw conclusions from a single indicator (or even from a few indicators). However, when a range of indicators is evaluated and tested, both on an individual and collective basis, it is possible to draw general conclusions about an airport's performance.
31. In this Attachment, Auckland Airport's performance has been evaluated against (1) seven airports defined by TRL as having similar overall levels of performance (the clique), (2) thirteen airports defined by TRL as having generally comparable performance (the group), and (3) all 26 airports in their survey sample, using data contained in the TRL 2000 Report. The analysis has then been extended to include the prior year's data (as contained in the TRL 1999 Report). Even when compared to airports in its clique and group - airports that were already identified by TRL as having high levels of overall performance - AIAL ranked above average under almost all tests. Auckland Airport ranked particularly high in the area of cost efficiency, and exhibited improved performance in this area from 1999 to 2000. This conclusion is bolstered by the supplementary benchmarks provided by ACI data.
32. As indicated by the ACI data, as well as the multi-attribute analysis described earlier, the area of non-aeronautical (or commercial) revenue development offers one potential improvement opportunity for AIAL in the future. This is an opportunity that AIAL has already pursued (with the emphasis that has gone into further developing retail concessions in the international terminal, since the performance 'reference year' used by TRL and ACI (namely 1998/99. ntal car, and other miscellaneous commercial development.

33. One additional item that should be noted in the context of the calculation and benchmarking of aeronautical revenues on a per passenger or per ATM basis is that many airports around the world (including most of the airports that were part of the TRL survey sample) levy a departure fee on airline passengers. This fee is typically paid directly by the passenger (either by direct payment at an airport kiosk, hotel, or other site, or as a component of the airline ticket that is passed through to the airport by the airlines). Depending on the location, monies generated by the departure fee may be revenues of the airport, revenues of the government, or split between the airport and the government. In the U.S., the departure fee is known as the Passenger Facility Charge (PFC), and is retained by the airport. At other locations it is known variously as a Passenger Service Charge, Airport Departure Fee, or in Auckland Airport's case, the Airport Development Charge (ADC). The portion of these revenues that is retained by the airport is generally treated as an item of aeronautical revenue.
34. As part of a separate project, Leigh Fisher conducted a separate detailed benchmarking of aeronautical fees and charges (including passenger departure fees) at 50 airports around the world. This analysis, documented in a report titled *Comparison of Airline Landing Charges at Auckland International Airport with Other Representative International Airports*, November 2000, **concluded that aeronautical charges at Auckland, when measured on a per aircraft turnaround basis, ranked between 33rd and 37th out of the 50 airports (i.e. they were well below average).**
35. In summary, there is a preponderance of benchmarking evidence, documented in this Attachment and bolstered by other benchmarking data presented in the body of this submission, that supports the conclusion that AIAL exhibits high levels of financial and operational performance, and cost efficiency, when compared to other major international airports around the world.