



**Assessment of the Socio-Economic
Drivers of Parafield Airport on the
Community of South Australia**

February 2023

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EXECUTIVE SUMMARY

This report details the contribution that Parafield Airport makes to the South Australian economy by estimating the employment and Gross State Product (GSP) associated with the Airport's overall business activities. This has been measured through a combination of a business survey and economic modelling to estimate the direct and indirect (multiplier) economic benefits attributable to Airport activity.

The report puts these outcomes into context by comparing the outcomes with those of the 2008, 2011 and 2016 reports and by assessing the Airport's operating environment over the last five year. The report also includes:

- An assessment of changes in Airport Activity and trend analysis over time to inform the economic impact assessment and employment/GSP forecasts.
- An assessment of the Economic Impact of Parafield Airport as at 2022 measured in terms of FTE Employment and Gross State Product by Airport Precinct and Aeronautical/Non-Aeronautical activity.
- Estimated Employment and GSP impact forecasts at 8 year and 20 year intervals to 2031 and 2043 by Precinct.
- Strategic considerations including:
 - Parafield Airport's estimated contribution to the Gross Regional Product of close Council areas including Salisbury, Playford, Port Adelaide Enfield and Tea Tree Gully (the Northern Region).
 - Mode of transport to work for Parafield Airport workers.
 - Sustainability policies and plans of airport tenants.
 - Carbon footprint measurements by airport tenants.
 - Potential 8 year developments by airport tenants.

In summary, the key conclusions of the analysis include:

- It is estimated that entities that operate in association with Parafield Airport directly employ 970 people (FTEs) on site and 279 people (FTEs) off-site, for a total of 1,249 FTEs. This employment level has associated direct wages of \$108.2 million annually, and supports a Gross Operating Surplus of \$41.8 million, giving a total contribution to Gross State Product directly of \$150.0 million.
- Through these income flows and the on-spend of the direct wages, there is an induced (or multiplier) contribution to value added in the Northern Region and in the State.
- In total, and including the induced or multiplier effect, the full economic impacts associated with the operations of Parafield Airport as at 2022 are estimated to be:
 - **In the Northern Adelaide Region**, support for 1,670 jobs, and a contribution to Gross Regional Product of \$216.9 million.
 - **For South Australia**, support for 2,570 jobs, and a contribution to Gross State Product \$354.8 million.

Table A below provides a summary of the estimated economic impacts by precinct and by aviation/non-aviation activities (mainly retail).

Table A: Summary of Results – Economic Contribution of Parafield Airport – 2022

	Airport Business District	Commercial Estate	Aviation	Non-Aviation	Total
Direct Impact					
Number of Businesses	43	50	22	71	93
Total Employment On-site	400	570	355	615	970
Total Employment Off-site	222	57	196	83	279
Total Employment	622	627	551	698	1,249
Estimate of Total Revenue (\$m)	\$241.8	\$97.7	\$228.8	\$110.7	\$339.5
Estimate of Direct Wages(\$m)	\$67.6	\$40.5	\$61.9	\$46.3	\$108.2
Estimated Direct Value Added (\$m)	\$93.8	\$56.3	\$85.7	\$64.3	\$150.0
Economic Contribution					
Northern Adelaide					
Gross State Product (\$m)	\$127.3	\$89.6	\$116.3	\$100.6	\$216.9
Household Income (\$m)	\$81.1	\$57.8	\$74.1	\$64.7	\$138.9
Employment (FTE's)	861	809	783	886	1,670
South Australia					
Gross State Product (\$m)	\$237.8	\$116.9	\$217.3	\$137.5	\$354.8
Household Income (\$m)	\$146.5	\$72.3	\$133.9	\$84.9	\$218.8
Employment (FTE's)	1,574	996	1,432	1,138	2,570

Table B below compares these 2022 results with those of previous studies undertaken in 2008, 2011 and 2016.

Table B: Economic Contribution of Parafield Airport – Comparison Across Time

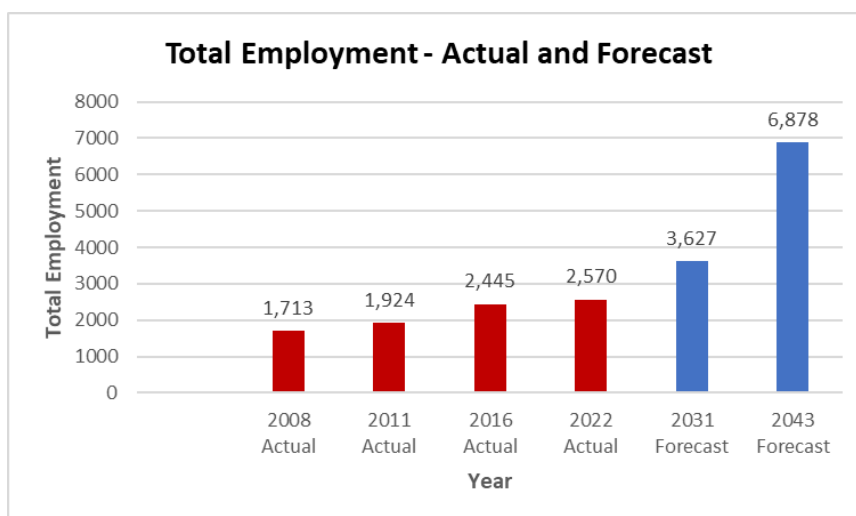
Impact	2008	2011	2016	2022	Increase 2022 over 2016
Direct Employment					
Onsite	750	823	1,100	970	-12%
Offsite	154	194	261	279	7%
Total Direct	904	1,017	1,361	1,249	-8%
Induced Employment	809	907	1,084	1,321	22%
Total Employment	1,713	1,924	2,445	2,570	5%
Total Value Added	\$184.5	\$184.3	\$262.8	\$354.8	35%

The growth in 2022 over 2016 of the induced employment is primarily a consequence of changes to the structure of industry sectors in the commercial precinct, and especially the operations of two health sector companies, which have a high estimated employment numbers and have high flow through impacts throughout the economy. The 35% increase in total value added between 2016 and 2022 also reflects inflation during that time.

Employment and GSP forecasts to 2031 and 2043 have been prepared based on projected future aircraft movements (supplied by Tourism Futures International) and future developments in the Airport, Commercial and Enterprise precincts (supplied by Parafield Airport).

The following graph depicts the historical and forecast total employment (direct and indirect) for the airport from 2008 to 2043.

Graph A: Actual and Expected Case Forecast Total Employment 2008 - 2043



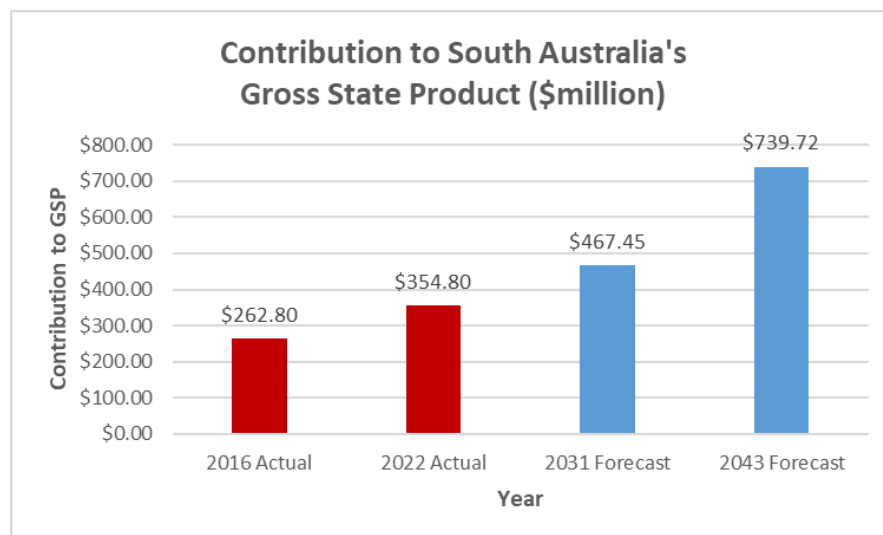
The following table provides a detailed on and off airport breakdown of the forecast employment growth.

Table A: Forecast Employment Growth

	2022	2031	2043
Direct On-Airport Employment	970	1,371	2,805
Direct Off Airport Employment	279	393	537
Induced Airport Employment	1,321	1,864	3,536
Total Airport Employment (Direct and Induced)	2,570	3,627	6,878

The following graph depicts the historical and forecast contribution to South Australia’s Gross State Product (direct and indirect) for the airport from 2016 to 2043.

Graph B: Actual and Expected Case Forecast Contribution to GSP 2016 - 2043



Finally, the operations of Parafield Airport have an economic impact on the Northern Adelaide Council areas which comprise the following Local Government Areas:

- Playford
- Salisbury
- Port Adelaide Enfield
- Tea Tree Gully

As detailed in this report, it is estimated the contribution of Parafield Airport to the State’s GSP in 2022 is \$354.8 million. Gross State product and Gross Regional Product for the 4 Councils as at 2022 is estimated to be \$128.6 billion and \$27.2 billion respectively based on

an economic model for the State and for the region (27 sector Input Output Tables for 2022 produced for this report).

Based on these estimates, Parafield Airport's contribution to Gross Regional Product (Northern Region as defined) and Gross State Product as at 2022 is estimated to be as follows:

- Contribution to Gross Regional Product (Northern Region) – 1.3%, down slightly from 1.48% in 2016 reflecting good economic growth in the surrounding northern region economy.
- Contribution to Gross State Product – 0.276%, similar to 2016 (0.266%).

It can therefore be seen from the above that Parafield Airport is continuing to strongly support both Northern Adelaide and State economic development.

1. INTRODUCTION

1.1 Project Background

Parafield Airport was privatised at the same time as Adelaide Airport when PAL purchased the operating lease for Parafield Airport (the Airport) in May 1998. The Airport is Adelaide's secondary airport to Adelaide Airport and its core activities include:

- General Aviation
- Pilot and Aviation Training
- Maintenance Services
- Commercial, Retail and Industrial Estates.

The Airport is used predominantly for General Aviation (GA) with a large proportion of aircraft movements being for training purposes (estimated by management to represent 80% - 90% of aircraft movements) with student pilots learning essential take-off and landing procedural skills. Strategically, Parafield Airport is exceptionally well located being 18 kilometres from the CBD of Adelaide and at the centre of a growth area for both industrial and residential development.

1.2 Project Objectives

This report details the contribution that Parafield Airport makes to the South Australian economy by estimating the employment and Gross State Product (GSP) associated with the Airport's overall business activities. This has been measured through a combination of a business survey and economic modelling to estimate the direct and indirect (multiplier) economic benefits attributable to Airport activity.

The report puts these outcomes into context by comparing the outcomes with those of the 2008, 2011 and 2016 reports and by assessing the Airport's operating environment over the last five years.

1.3 Methodology

The specific methodology employed for this study included:

- A survey of Parafield Airport businesses to estimate on-site employment and any other strategic issues agreed with AAL/PAL. This survey was administered via Hudson

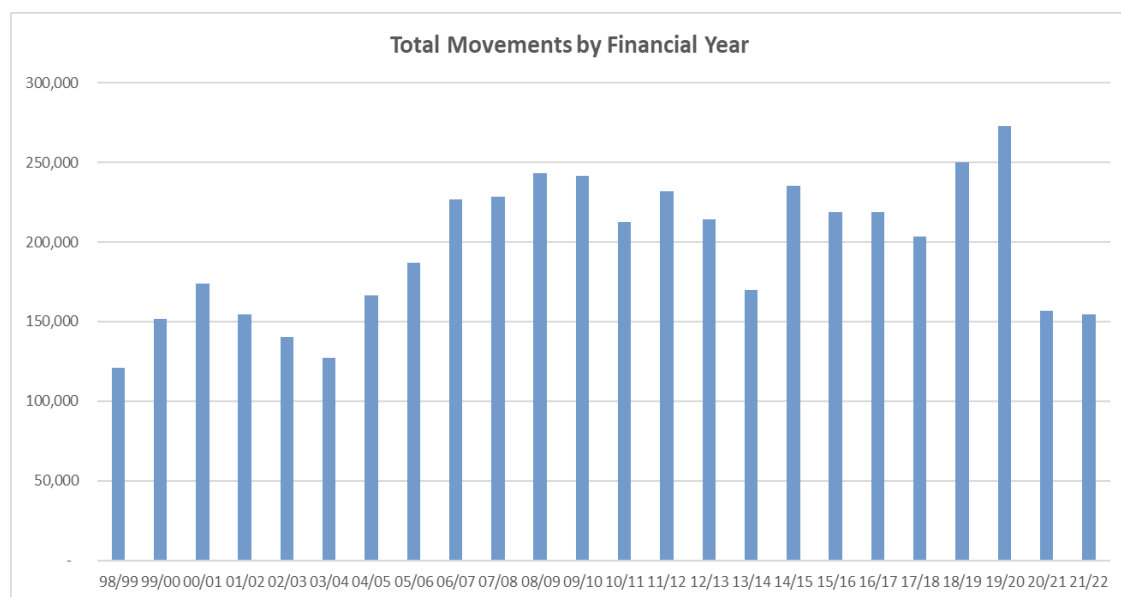
Howells' on-line Survey Monkey facility. The Draft Survey was submitted to AAL for approval before commencing the survey and AAL/PAL management supplied a database of Parafield Airport Tenants, contact persons and email contact details by major Precincts i.e. Central (Aero) and Commercial.

- An assessment of changes in Airport Activity and trend analysis over time to inform the economic impact assessment and employment/GSP forecasts. AAL/PAL management supplied information in relation to planned new tenants/developments at 8 and 20 year intervals – i.e. estimated square metre take up to 2031 and 2043 by Precinct.
- An assessment of the Economic Impact of Parafield Airport as at 2022 measured in terms of FTE Employment and Gross State Product by Airport Precinct and Aeronautical/Non-Aeronautical activity.
- Estimated Employment and GSP impact forecasts for the above 8 year time frames.
- Strategic considerations including
 - Parafield Airport's estimated contribution to the Gross Regional Product of close Council areas including Salisbury, Playford, Port Adelaide Enfield and Tea Tree Gully (the Northern Region).
 - Mode of transport to work for Parafield Airport workers.
 - Sustainability policies and plans of airport tenants.
 - Carbon footprint measurements by airport tenants.
 - Potential 8 year developments by airport tenants.

2. RECENT CHANGES IN AIRPORT ACTIVITY

Comparisons of annual aircraft movements at Parafield Airport are only reliable from 1998/99 when the definition of ‘aircraft movement’ was changed to treat ‘touch and goes’ as one movement instead of two. Also, from May 1998, Airport Tower hours changed from 0700 – 2200 to 0800 – 1800 which would have also contributed substantially to reduced number of captured aircraft movements. The 2016 report noted that aircraft movements at Parafield Airport declined substantially between 2000 and 2004 reaching a low number of movements by 2003/04 (127,162) as shown in Graph 1 below.

Graph 1 – Parafield Airport Aircraft Movements 1998/99 – 2020/21



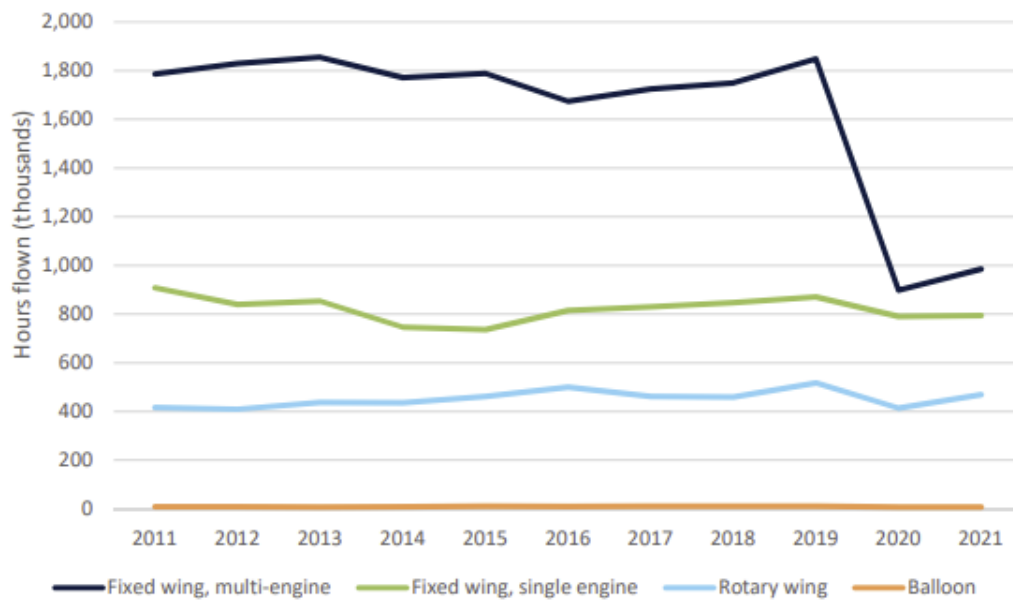
Source: Airservices Australia – Movements at Australian Airports (www.airservicesaustralia.com) as supplied by Parafield Airport Limited

As can be seen from the above graph, with the exception of 2013/14 there was a sustained recovery in the number of aircraft movements after 2003/04 peaking at 272,646 in 2019/20. This is still the highest number of annual movements since the revised data capture times.

The impact of the Covid-19 pandemic is evident in the sharp decline in aircraft movements for 2020/21 and 2021/22 when there were travel restrictions and lockdown periods. Total aircraft movements of 154,796 for 2021/22 were the lowest recorded since 2003/04 and this decline is reflected in the Airport’s socio-economic impact as at 2022 detailed later in this report.

This performance is consistent with national and state based general aviation trends over the same period to 2021. Bureau of Infrastructure, Transport and Regional Economics (BITRE) General Aviation Activity data show that total landings declined significantly in 2020 in the General Aviation sector as shown in the following graph:

Graph 2 - General Aviation hours flown, by category of aircraft (2011–2021)



Source: BITRE, General Aviation Activity, 2021

The slight recovery in 2021 at the national level is not reflected in Parafield Airport activity which continued to decline slightly in 2021/22. This is due to Parafield Airport’s heavy reliance on aircraft training which continued to suffer from international travel restrictions during this time.

3. ECONOMIC ACTIVITY ASSOCIATED WITH THE AIRPORT

3.1 Background and Methodology

This section of the report provides an analysis of the level of economic activity associated with the operation of Parafield Airport based on a comprehensive survey of Airport businesses and economic modelling of the survey and other data. Using the data and economic modelling, estimates are made of:

- The total jobs, wages paid and expenditure of companies whose operations are based around the Airport, identified through the survey.
- Induced (or multiplier) economic impacts associated with this direct impact.

The analysis provides a quantitative assessment of the contribution that Parafield Airport makes to the South Australian and Northern Adelaide economies as at 2022. The Northern Adelaide Region is defined as the Local Government Areas of Salisbury, Playford, Tea Tree Gully and the eastern half of Port Adelaide Enfield.

This economic impact assessment is an update of previous reports undertaken in 1998, 2004, 2008, 2011 and 2016. The economic contribution of Airport activity is measured by the amount of income it supports (its contribution to Gross State or Regional Product) and its employment outcomes.

The estimation of economic impact is based on the survey of entities operating at the Airport, and their estimates of direct employment, both on site and employment off-site that is dependent on their activities at the Airport. The revenue/expenditure base that this employment supports is then estimated and traced through Input Output Tables for South Australia and the Northern Adelaide Region to determine estimates of income associated with that employment, and the induced or flow on impact that is related to these activities.

3.2 Business Survey

At the commencement of the project, PAL supplied a database containing 93 organisations (including PAL) operating from Parafield Airport (73 in 2016). A business survey was designed and approved by AAL and PAL management to obtain data for the economic impact assessment. Following is a summary of the organisations surveyed:

- Total number of organisations – 93 (comprising 43 aviation related business and 50 commercial/retail businesses).

- Unable to be contacted – 14 (no answer, away, refused survey, etc.).
- Completed surveys – 79 or 85% (67% in 2016).

3.3 Key Conclusions

The key conclusions of the analysis include:

- It is estimated that entities that operate in association with Parafield Airport directly employ 970 people (FTEs) on site and 279 people (FTEs) off-site, for a total of 1,249 FTEs. This employment level has associated direct wages of 108.2 million annually, and supports a Gross Operating Surplus of \$41.8 million, giving a total contribution to Gross State Product directly of \$137.2 million.
- Through these income flows and the on-spend of the direct wages, there is an induced (or multiplier) contribution to value added in the Northern Region and in the State.
- In total, and including the induced or multiplier effect, the full economic impacts associated with the operations of Parafield Airport are estimated to be:
 - **In the Northern Adelaide Region**, support for 1,670 jobs, and a contribution to Gross Regional Product of \$216.9 million.
 - **For South Australia**, support for 2,570 jobs, and a contribution to Gross State Product \$354.8 million.

Table 1 below provides a summary of the estimated economic impacts by precinct and by aviation¹/non-aviation activities (mainly retail).

¹ Aviation includes air transport, air training and aircraft maintenance activities. Non-aviation is dominated by retail and food services, but includes some larger health service activities as well (see Table 5).

Table 1: Summary of Results – Economic Contribution of Parafield Airport - 2022

	Airport Business District	Commercial Estate	Aviation	Non-Aviation	Total
Direct Impact					
Number of Businesses	43	50	22	71	93
Total Employment On-site	400	570	355	615	970
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Estimate of Total Revenue (\$m)	\$241.8	\$97.7	\$228.8	\$110.7	\$339.5
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Estimated Direct Value Added (\$m)	\$93.8	\$56.3	\$85.7	\$64.3	\$150.0
Economic Contribution					
Northern Adelaide					
Gross State Product (\$m)	\$127.3	\$89.6	\$116.3	\$100.6	\$216.9
Household Income (\$m)	\$81.1	\$57.8	\$74.1	\$64.7	\$138.9
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South Australia					
Gross State Product (\$m)	\$237.8	\$116.9	\$217.3	\$137.5	\$354.8
Household Income (\$m)	\$146.5	\$72.3	\$133.9	\$84.9	\$218.8
Employment (FTE's)	1,574	996	1,432	1,138	2,570

Tables 2 and 3 below contain the modelled employment outcomes by industry sector in the respective regions. While the direct employment is, as expected, primarily in the retail and air transport/aeronautical sectors (and to a lesser extent in construction), the flow through effects demonstrate that the contribution of the Airport’s operations permeate the economic fabric of the respective communities, with jobs created in retail beyond that in the precinct, in business services, in road transport and in education, health and personal services.

Table 2: Summary of Employment Outcomes by Industry (Northern Region) – 2022

	Direct	Total
Aeronautical	380	418
Agriculture and Mining	0	17
General Manufacturing	0	107
Retail and Hospitality	443	530
Construction and Utilities	3	73
Professional and Business Services	10	171
Public Administration	16	41
Education	5	173
Healthcare	90	94
Other	23	46
Other	970	1,670

Table 3: Summary of Employment Outcomes by Industry (South Australia) - 2022

	Direct	Total
Aeronautical	576	629
Agriculture and Mining	0	57
General Manufacturing	0	170
Retail and Hospitality	501	662
Construction and Utilities	6	122
Professional and Business Services	14	346
Public Administration	19	60
Education	5	265
Healthcare	90	98
Other	38	585
Total	1,249	2,570

Table 4 below compares these 2022 results with those of previous studies undertaken in 2008, 2011 and 2016. The decrease in direct employment is offset by the increase in induced employment, which is a consequence of changes in industry structure in the commercial precinct (and in particular the inclusion of some substantial healthcare providers, which have high levels of business-to-business connections, and high relative wages which increase the consumption induced impacts).

Table 4: Economic Contribution of Parafield Airport – Comparison Across Time

Impact	2008	2011	2016	2022	Increase - 2022 over 2016
Direct Employment					
Onsite	750	823	1,100	970	-12%
Offsite	154	194	261	279	7%
Total Direct	904	1,017	1,361	1,249	-8%
Induced Employment	809	907	1,084	1,321	22%
Total Employment	1,713	1,924	2,445	2,570	5%
Total Value Added (ex GoS of Airport Activities)	\$184.5	\$184.3	\$262.8	\$354.8	35%

3.4 Detailed Analysis

The quantification of the economic contribution of Parafield Airport to the State and regional economies is based on the responses to the business survey of entities operating at the Airport and determining the direct employment contribution of those entities. 79 respondents (85% of businesses on site) provided details of employment on site, and employment off-site that is dependent on their activities at the Airport.

The average employment by respondent in each industry sectors has been factored up to provide an estimate of aggregate employment in each sector based on the estimated number of businesses within each industry sector at the Airport. Responders that gave employment details but did not disclose their name or industry (i.e. confidential) that could not be identified through an internet search were assumed to be half in the retail sector and half in business services. It was further assumed, based on observation, that non-respondents would employ 50% of the average employment numbers of the respondents (i.e. it was generally assumed that non respondents were smaller businesses). Air training is the largest employing activity in the Business District, and in terms of production function is allocated 75% to Air Transport, and 25% to the University and Technical Educations sectors.

The ratios of revenue, wages and gross operating surplus for the underlying industry sectors for the Northern Metropolitan Region (air transport, retail, construction, etc.) were used as indicative for Parafield Airport businesses. These ratios have been used to estimate the direct revenue base for these businesses, including wages and gross operating surplus (i.e. returns to capital). These estimates therefore assume that the businesses in the Airport area are similar to industry averages (on a per worker basis).

Table 5, 6, and 7 below provide a summary of the core data based on the industry base and survey responses. They include estimates of revenue, direct employment, wages and value added. As at 2022, Parafield Airport is estimated to support 1,249 direct jobs (FTE's) of which 970 are on-site. In the Northern region, it is assumed that the off-site employment of 279 jobs are based elsewhere in the State (mostly in Adelaide CBD). The wages generated in the Northern region are estimated as \$80.1 million annually, while wages paid to households in the State is estimated to be \$108.2 million².

² Source: Hudson Howells - survey results weighted up for non-responders, and modelled revenue and wages results.

Table 5: Economic Contribution 2022 – Airport Business District Direct Impacts

	Airport Business District									Total
	Air Transport	Air Training	Maintenance Services	Retail	Wholesale Trade	Professional Services	Personal Services	Public Administration	Other	
Number of Respondents	10	8	2	3	1	1	1	2	13	41
Number of Non Respondents	2	0	0	0	0	0	0	0	0	2
Proportion of Businesses Not Respondents	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%
Proportion of Businesses by Type	12.9%	8.6%	2.2%	3.2%	1.1%	1.1%	1.1%	2.2%	14.0%	46.2%
Average Employment On Site	12.0	26.4	6.0	2.3	10.0	1.0	6.0	8.0	0.4	12.0
Average Employment Off Site	8.3	13.0	0.5	0.3	6.0	4.0	0.0	1.5	0.9	43.5
Aggregate Employment in Respondents										
Total Employment On Site	120	211	12	7	10	1	6	16	5	388
Total Employment Off Site	83	104	1	1	6	4	0	3	12	214
Total Employment (SA)	203	315	13	8	16	5	6	19	17	602
Aggregate Employment - Estimated Total										
Total Employment On Site	132	211	12	7	10	1	6	16	5	400
Total Employment Off Site	91	104	1	1	6	4	0	3	12	222
Total Employment (SA)	223	315	13	8	16	5	6	19	17	622
Northern Adelaide										
Estimate of Total Revenue (\$m)	\$74.4	\$64.5	\$2.2	\$1.0	\$4.0	\$0.2	\$0.8	\$3.9	\$1.0	\$152.1
Estimate of Direct Wages (\$m)	\$15.7	\$22.7	\$0.5	\$0.4	\$1.2	\$0.1	\$0.4	\$1.8	\$0.4	\$43.2
Estimated Direct Value Added (\$m)	\$23.1	\$29.8	\$0.8	\$0.6	\$2.1	\$0.1	\$0.5	\$2.2	\$0.5	\$59.7
South Australia										
Estimate of Total Revenue (\$m)	\$125.6	\$96.3	\$2.3	\$1.2	\$6.3	\$1.2	\$0.8	\$4.6	\$3.4	\$241.8
Estimate of Direct Wages (\$m)	\$26.5	\$33.9	\$0.5	\$0.5	\$1.9	\$0.4	\$0.4	\$2.1	\$1.5	\$67.6
Estimated Direct Value Added (\$m)	\$38.9	\$44.5	\$0.8	\$0.7	\$3.3	\$0.6	\$0.5	\$2.7	\$1.8	\$93.8

Table 6: Economic Contribution 2022 – Commercial Estate Direct Impacts

	Commercial Estate										Total
	Retail	Food Services	Construction	Education and Training	Health Services	Maintenance Services	Personal Services	Professional Services	Property Services	Other	
Number of Respondents	26	2	1	1	1	1	2	1	1	2	38
Number of Non Respondents	11	0	0	0	1	0	0	0	0	0	12
Proportion of Businesses Not Respondents	29.7%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.0%
Proportion of Businesses by Type	39.8%	2.2%	1.1%	1.1%	2.2%	1.1%	2.2%	1.1%	1.1%	2.2%	53.8%
Average Employment On Site	12.2	21.0	3.0	5.0	60.0	25.0	6.0	9.0	0.0	0.0	16.2
Average Employment Off Site	1.3	5.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	1.5	7.8
Aggregate Employment in Respondents											
Total Employment On Site	317	42	3	5	60	25	12	9	0	0	473
Total Employment Off Site	34	10	2	0	0	0	0	0	1	3	50
Total Employment (SA)	351	52	5	5	60	25	12	9	1	3	523
Aggregate Employment - Estimated Total											
Total Employment On Site	384	42	3	5	90	25	12	9	0	0	570
Total Employment Off Site	41	10	2	0	0	0	0	0	1	3	57
Total Employment (SA)	425	52	5	5	90	25	12	9	1	3	627
Northern Adelaide											
Estimate of Total Revenue (\$m)	\$57.3	\$5.4	\$1.2	\$1.0	\$14.7	\$4.5	\$1.7	\$2.2	\$0.0	\$0.0	\$87.9
Estimate of Direct Wages (\$m)	\$22.1	\$1.7	\$0.4	\$0.5	\$9.4	\$1.0	\$0.8	\$1.0	\$0.0	\$0.0	\$37.0
Estimated Direct Value Added (\$m)	\$32.9	\$2.5	\$0.6	\$0.6	\$10.4	\$1.6	\$1.1	\$1.2	\$0.0	\$0.0	\$50.9
South Australia											
Estimate of Total Revenue (\$m)	\$63.5	\$6.6	\$2.0	\$1.0	\$14.7	\$4.5	\$1.7	\$2.2	\$0.5	\$1.1	\$97.7
Estimate of Direct Wages (\$m)	\$24.5	\$2.1	\$0.6	\$0.5	\$9.4	\$1.0	\$0.8	\$1.0	\$0.1	\$0.5	\$40.5
Estimated Direct Value Added (\$m)	\$36.4	\$3.1	\$1.0	\$0.6	\$10.4	\$1.6	\$1.1	\$1.2	\$0.3	\$0.6	\$56.3

Table 7: Economic Contribution 2022 – Aviation and Non-Aviation Impacts

	Aviation	Non-Aviation	Total
Number of Respondents	21	58	79
Number of Non Respondents	2	12	14
Proportion of Businesses Not Respondents	9%	17%	15%
Proportion of Businesses by Type	25%	75%	100%
Average Employment On Site	17.5	8.5	10.9
Average Employment Off Site	8.9	1.3	3.3
Aggregate Employment in Respondents			
Total Employment On Site	368	493	861
Total Employment Off Site	188	76	264
Total Employment (SA)	556	569	1,125
Aggregate Employment - Estimated Total			
Total Employment On Site	380	590	970
Total Employment Off Site	196	83	279
Total Employment (SA)	576	673	1,249
Northern Adelaide			
Estimate of Total Revenue (\$m)	\$145.6	\$94.4	\$240.0
Estimate of Direct Wages (\$m)	\$39.9	\$40.3	\$80.1
Estimated Direct Value Added (\$m)	\$55.2	\$55.5	\$110.7
South Australia			
Estimate of Total Revenue (\$m)	\$228.8	\$110.7	\$339.5
Estimate of Direct Wages (\$m)	\$61.9	\$46.3	\$108.2
Estimated Direct Value Added (\$m)	\$85.7	\$64.3	\$150.0

The above tables detail the direct impacts of entities that operate at Parafield Airport. However, the businesses at the Airport purchase inputs from other firms and economic sectors – supplies, business services etc., and the wages of people employed in these businesses are spent on household consumption items. This produces a flow on or induced effect (multiplier effect) to other activity throughout the economy that is dependent on the activity at the Airport. The extent of this impact is estimated by tracing the revenues as estimated above through a whole of economy model that details the relationships between economic sectors. The model used in this Parafield Airport analysis is an Input Output Model with tables developed for both the State and Northern Region. The underlying model is an input output model developed as follows:

- The base is the 2019/20 national input output tables, and this has been reduced to 27 industry sectors focussing on the direct industry impacted by Parafield Airport operations, including an emphasis on the transport sector.
- The national tables have been converted to state tables using a location quotient method, and the inclusion of state national accounts and labour force data.
- The state tables have been converted to regional tables using a location quotient method based on 2021 census data.

- There have been adjustments in terms of inflation, productivity improvement and import replacement shifts.

The revenues estimated above by category of activity are applied to the relevant industry sectors, and the impact of this is traced through the economy to estimate the induced effects, which are then added to the direct effects to give the total economic impact. In total therefore, including the induced or multiplier effect, the full economic impacts associated with the operations of Parafield Airport as at 2022 are estimated to be:

- In the **Northern Adelaide Region**, support for 1,670 jobs, and a contribution to Gross Regional Product of \$216.9 million.
- For **South Australia**, support for 2,570 jobs, and a contribution to Gross State Product \$354.8 million.

4. EMPLOYMENT AND GROSS STATE PRODUCT FORECASTS

This section of the report contains forecast estimates of employment and contribution to Gross State Product (GSP) to 2043 consistent with Parafield Airport’s Masterplan which contains estimates for future aircraft movements.

Employment and GSP data from the current 2022, 2016, 2011, and 2008 studies were compared with airport Aircraft Movements in order to determine a level of correlation between the respective growth rates to enable employment forecasts to be made based on forward estimates of Aircraft Movements contained in AAL’s Master Plan for Parafield Airport.

The following table shows the results of the correlation between employment estimates and recorded Aircraft Movements.

Table 8: Correlation Between Employment and Aircraft Movements 2008 - 2022

	2008	2011	2016	2022
Total Employment to Aircraft Movements	0.75%	0.89%	1.12%	1.66%
Direct Employment to Aircraft Movements			0.26%	0.40%
Direct GSP to Aircraft Movements			0.04%	0.06%

The increasing employment to aircraft movement ratio since 2008, and especially between 2011 and 2016, is largely attributable to the developments and new employment in the Commercial Estate at Parafield Airport against more modest growth in aircraft movements over that time (approximately 6,000 between 2011 and 2016). The significant increase in 2022 over 2016 is largely due to the slow recovery of aircraft movements compared with employment recovery post Covid and therefore is an unreliable indicator of the correlation between employment and aircraft movements.

A set of employment and GSP forecasts to 2043 has therefore been constructed based on:

- For the Airport Business District - Correlation between 2016 direct employment/GSP to Aircraft Movement ratios and forecast Aircraft Movements as prepared for Parafield Airport by TFI and summarised below, plus estimated space take-up to 2043 and the application of standard industry employment ratios.

Table 9: Forecast Aircraft Movements 2023 – 2043

	2023	2031	2043
Expected	221,700	282,800	342,300
Optimistic	226,500	322,800	390,800

Note: 2021/22 – 154,796

- For the Commercial Precinct and Enterprise Estate – Estimated space take-up to 2043 and the application of standard industry employment ratios. Estimated space take-up as advised by AAL is detailed in the following table:

Table 10: Estimated Space Take-Up by Precinct 2023 – 2043 (Sq. Metres)

Precinct	2023 - 2031	2032 - 2043
Airport Business District	20,000 Commercial	180,000 Industrial Bulky Retail
Commercial Estate	40,000 Bulky Retail	10,000 Bulky Retail
Enterprise Precinct	100,000 Industrial	400,000 Industrial

The 2016 Airport Business District direct employment to Aircraft Movements ratio (0.26%) is used for future direct employment forecasts for the Airport Business District. Similarly, the 2016 Airport Business District direct GSP to Aircraft Movement ratio (0.04%) is used for future direct GSP forecasts for the Airport Business Precinct.

Forecast Aircraft Movements to 2043 were obtained from AAL (supplied by Tourism Futures International) and have been used to construct ‘expected case’ and ‘optimistic case’ forecasts of Precinct employment and GSP growth associated with the operations of Parafield Airport.

The expected case and optimistic case employment and GSP forecasts for Parafield Airport are shown in the following tables:

Table 11: Forecast Jobs (FTE) by Precinct – Expected Case - 2022 – 2043

Precinct Estimates - Expected Jobs (FTE)			
	2022	2031	2043
Airport Business District	622	786	1,340
Commercial Estate	627	727	752
Enterprise Precinct	0	250	1,250
Total Direct Jobs	1,249	1,763	3,342
Induced Jobs	1,321	1,864	3,535
Total	2,570	3,627	6,878

Table 12: Forecast Jobs (FTE) by Precinct – Optimistic Case - 2022 - 2043

Precinct Estimates - Optimistic Jobs (FTE)			
	2022	2031	2043
Airport Business District	622	890	1,467
Commercial Estate	627	727	752
Enterprise Precinct	0	250	1,250
Total Direct Jobs	1,249	1,867	3,469
Induced Jobs	1,321	1,974	3,669
Total	2,570	3,841	7,137

Table 13: Forecast GSP by Precinct – Expected Case - 2022 - 2043

Precinct Estimates - Expected GSP			
	2022	2031	2043
Airport Business District	\$93.80	\$110.03	\$133.18
Commercial Estate	\$56.30	\$65.28	\$67.52
Enterprise Estate	\$0.00	\$22.45	\$112.24
Total Direct GSP	\$150.10	\$197.76	\$312.94
Induced GSP	\$204.70	\$269.69	\$426.78
Total	\$354.80	\$467.45	\$739.72

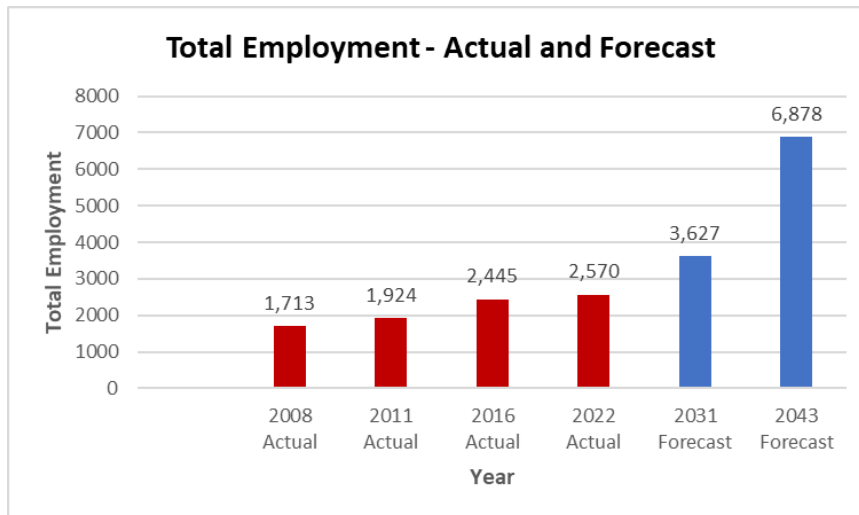
Table 14: Forecast GSP by Precinct – Optimistic Case - 2022 - 2043

Precinct Estimates - Optimistic GSP			
	2022	2031	2043
Airport Business District	\$93.80	\$125.59	\$152.05
Commercial Estate	\$56.30	\$65.28	\$67.52
Enterprise Estate	\$0.00	\$22.45	\$112.24
Total Direct GSP	\$150.10	\$213.32	\$331.81
Induced GSP	\$204.70	\$290.91	\$452.51
Total	\$354.80	\$504.23	\$784.32

It is important to note that the above expected and optimistic cases factor in the TFI medium and high aircraft movement forecasts respectively for the Airport Business Precinct, with all other precinct employment and GSP forecasts remaining constant.

The following graph depicts the historical and forecast total employment (direct and indirect) for the airport from 2008 to 2043.

Graph 3: Actual and Expected Case Forecast Total Employment 2008 - 2043



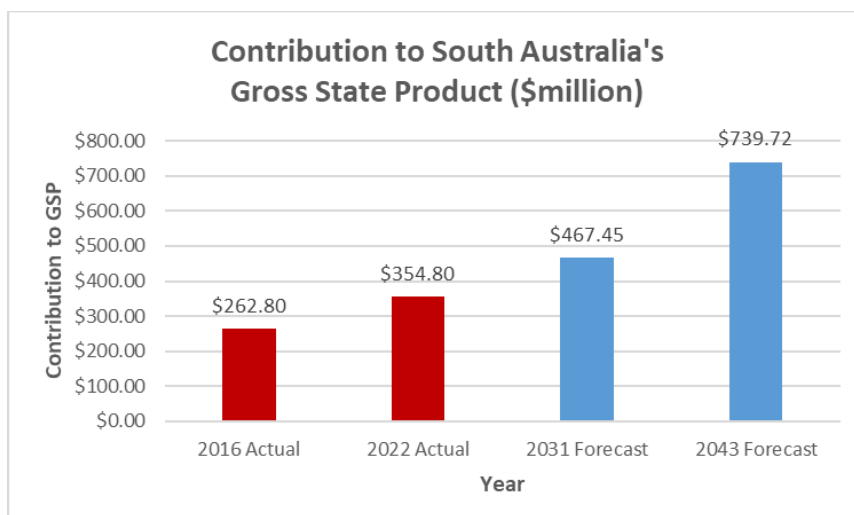
The following table provides a detailed on and off airport breakdown of the forecast employment growth.

Table 15: Forecast Employment Growth

	2022	2031	2043
Direct On-Airport Employment	970	1,371	2,805
Direct Off Airport Employment	279	393	537
Induced Airport Employment	1,321	1,864	3,536
Total Airport Employment (Direct and Induced)	2,570	3,627	6,878

The following graph depicts the historical and forecast contribution to South Australia’s Gross State Product (direct and indirect) for the airport from 2016 to 2043.

Graph B: Actual and Expected Case Forecast Contribution to GSP 2016 - 2043



Note: This section has been omitted from this document as it sits outside the Economic Assessment and is not being released.