

Economic impact of Darwin City Council

Final Report

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1. Introduction

1.1 Overview

Darwin Council have requested an economic analysis of the economic contribution made by Council. The aim of this analysis is to highlight the important role Local Government plays in the local economy.

To meet this request, .id has undertaken an economic impact analysis to identify the direct and indirect economic contribution of local government, including its operational role and capital expenditure program. This report estimates the annual contribution of Darwin Council on the City of Darwin economy during the 2019/20 financial year.

The report presents the following information:

- ▾ An explanation of the methodology
- ▾ Impact of operational expenditure
- ▾ Impact of capital works program

This report has been prepared as a reference document to the infographic provided to Darwin Council.

1.2 Methodology

.id have used an economic impact model that is specifically tailored to the City of Darwin economy by using local input-output tables developed by NIEIR. An input-output matrix describes how the different industries in an economy interrelate, and how supply chains operate in the local area. Using input-output tables, multipliers can be calculated to provide a simple means of working out the flow-on effects of a change in output in an industry on one or more of imports, income, employment or output in individual industries or in total.

The economic impact model is updated each year to take account of changes to the local economy. Multipliers for a region may change over time in response to changes in the economic and industry structure as well as price changes. Some reasons for a multiplier to change include:

- ▣ overall size and economic diversity of the region's economy
- ▣ changes to industry structure (e.g. export/import, mix of labour/capital inputs, productivity changes)
- ▣ household income and household spending patterns

For example, if the retail industry takes 15 jobs to produce \$1 million of sales in 2006, and productivity increases by say 50% through 2016, then only 10 jobs are required to produce \$1 million of sales. The job multiplier falls from 15 to 10 jobs per \$1 million of sales.

The economic contribution and impact analysis were based on the following inputs obtained from Darwin Council:

- ▣ Operational: \$87m of output mapped to the ANZSIC industry code - Public Administration (the sector that most closely resembles Local Government).
- ▣ Capital expenditure spent: \$25 million mapped to the ANZSIC industry code – Construction given that most of the capital works program is construction and repair related.

Other methodology points to be noted are:

- ▣ Non-local expenditure by Council has been excluded from this economic impact analysis. We have also excluded depreciation costs or interest payments.
- ▣ While attempts have been made to avoid double counting, there may be some double-counting with respect to the jobs generated through the construction impacts.
- ▣ Contribution to GRP is based on Total Industry Value Added.

1.3 Terminology

- **Direct impacts:** represent the initial change in the industry selected. This refers to expenditure associated with the industry (e.g. labour, material, supplies, capital).
- **Indirect impacts (Industrial):** The direct impacts from the initial expenditure creates additional activity in the local economy ('ripple effect'. Indirect effects are the results of business-to-business transactions indirectly caused by the direct impacts.
- **Induced impacts (Consumption):** An increase in revenue (from direct and indirect impacts) means that businesses increase wages and salaries by hiring more

employees, increasing hours worked and raising wages. Households will then increase spending at local businesses.

- **Value added:** Value-added is the value of sales generated by each industry, minus the cost of its inputs. Estimates are modelled using the NIEIR methodology, and presented in constant dollars (adjusted for inflation). It is calculated by subtracting the cost of industry inputs from total sales generated.
- **Output:** Output is the gross sales of an industry, which includes the cost of inputs to that industry. To the extent that outputs from one industry are used as inputs to another, the economic productivity of an industry may be counted multiple times in output, which is why output totals generally appear much higher than value add or GRP.

1.4 Disclaimer

The Report is prepared only for use by the person/entity who commissioned the Report and may only be used for the purpose for which it was commissioned. ID accepts no liability in connection with the recipient's use or reliance on the Report.

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In relation to the economic model, as this is only a model of the real world, it is likely that real-world results would differ from what is shown in this report. .id and NIEIR take no responsibility for the use of this information.

1.5 Local Government profile

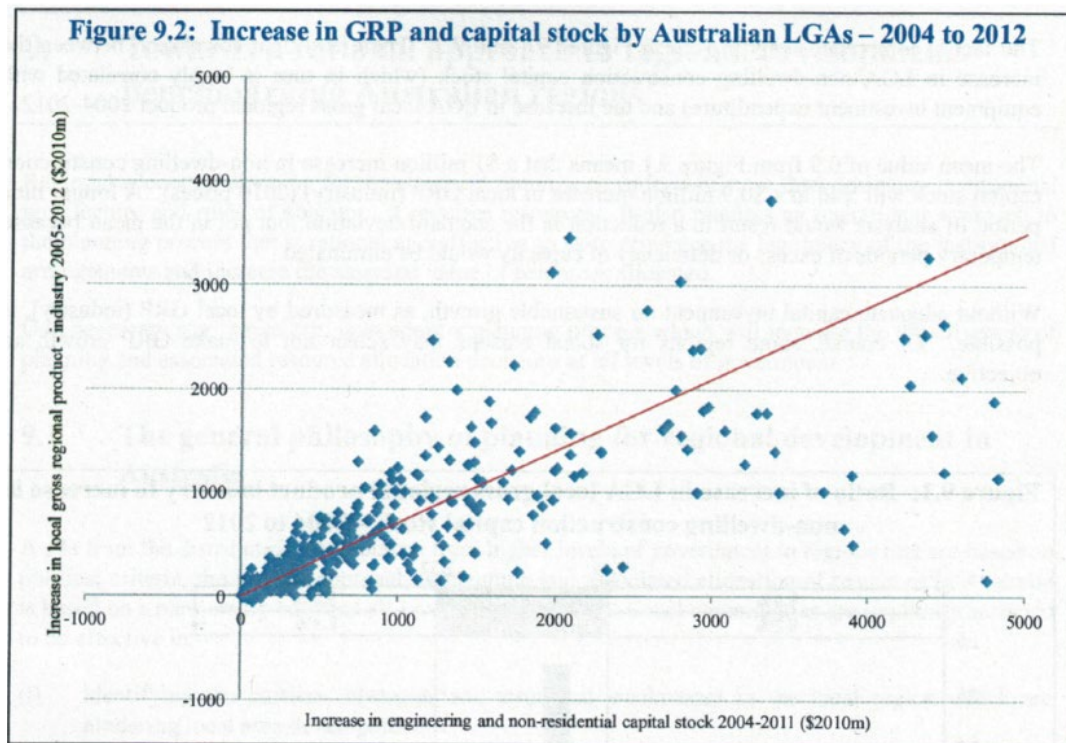
1.5.1 Economic and investment activities

In 2019/20, Darwin Council’s total spend was estimated at \$112 million. This was made up of:

- ▣ \$36 million on employee wages
- ▣ \$51 million on materials and services
- ▣ \$25 million on capital works

Much (most) of Darwin Council expenditure is spent locally (around 95%) as do the wages earned by council staff. This expenditure supports other industries in the economy and help support a vibrant economy.

This investment in roads, infrastructure and transport has an immediate impact on the economy as well as a long term impact on regional productivity. The figure below is drawn from research by NIEIR. NIEIR analysis has demonstrated the relationship between increases in capital stock within an LGA and changes in levels of economic activity. Council therefore has a major role in supporting the long term economic productivity of the region.



Source: NIEIR (extracted from the State of the Regions report)

1.5.2 Direct economic contribution

The table below summarises the direct economic contribution of Darwin Council to the local economy. In 2019/20, the total direct economic contribution of Darwin Council was estimated at \$65 million (value added terms). This contribution represents around 0.9% of Gross Regional Product (total industry value added) and **only includes expenditure captured in Darwin.**

Table: Direct economic contribution of Darwin Council, 2019/20

	Operational	Capital works	Total
Output \$m	\$85	\$21	\$105
Value add \$m	\$59	\$6	\$65
Jobs	358	52	410

Source: National Institute of Economic and Industry Research (NIEIR) ©2019. Compiled and presented in economy.id by .id , the population experts.

1.6 Economic impact of operations

The operation of Council makes a direct contribution to the Darwin economy. In 2019/20, Darwin Council employed around 358 staff (headcount) and local operational expenditure of \$85 million (made up of \$36 million in wages and salaries and \$49 million in goods and services), making it one of the largest employing businesses in the region. The operation of Council creates a ripple effect to the rest of the economy.

The operational expenditure of \$85 million in the Public Administration sector of the Darwin economy supports indirect demand for intermediate good and services across related industry sectors. These indirect industrial impacts (Type 1) are estimated to support 88 jobs (in addition to the 358 jobs in Darwin Council). This indirect impact on jobs in the local economy supports wages and salaries, a proportion of which would be spent on local goods and services, supporting a further 143 jobs through consumption impacts. The combination of all direct, industrial and consumption effects from Council's operations **supports a total contribution of 589 jobs located in Darwin.**

This means that around **7 jobs are created through every \$1m of Council operational expenditure:** 4 in Local Government sector, plus 3 more jobs in areas like Retail, Professional, Scientific and Technical Services and Accommodation and Food Services.

This ripple effect arises from linkages with other businesses and from workers spending money in the region. **The combination of all direct, industrial and consumption effects from operational activities generates Value-added of \$82 million in Darwin economy, equating to 1.1% of Gross Regional Product (total industry value added).**

Impact Summary – Darwin Council - Operations (\$85m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs (headcount)
Impacts on Darwin economy			
Direct impact on Public administration sector	85	59	358
Industrial impact	21	10	88
Consumption impact	29	13	143
Total impact on Darwin economy	134	82	589

Source: National Institute of Economic and Industry Research (NIEIR) ©2019. Compiled and presented in economy.id by .id , the population experts.

1.7 Economic impact of capital works program

In 2019/20 Darwin capital works program totalled \$25 million. Of this, it is estimated that \$21 million was spent with local businesses. This investment in roads, infrastructure and transport has an immediate impact on the economy as well as a long term impact on regional productivity.

The capital works expenditure (local) of \$21 million created through construction projects is estimated to lead to a corresponding direct addition of 52 jobs in the local Construction sector. This expenditure results in flow on effects into other related intermediate industries, creating an additional 52 jobs. This addition of jobs in the local economy would lead to a corresponding increase in wages and salaries, a proportion of which would be spent on local goods and services, creating a further 55 jobs through consumption impacts. **The total impact of the capital works program results in a total impact of 159 jobs in Darwin economy.**

This means that around **8 jobs are created through every \$1m of spending on the capital works program**: 3 in the construction industry, plus 5 more in areas like retail,

manufacturing and business services. This ripple effect arises from linkages with other businesses and from workers spending money in the region.

The combination of all direct, industrial and consumption effects from Council's spend on its capital works program, results in a contribution of \$16 million of Value-added in Darwin economy, equating to a 0.2% of Gross Regional Product.

Impact Summary – Darwin Council - Capital Works (\$21m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs (headcount)
Impacts on Darwin economy			
Direct impact on Construction sector	21	6	52
Industrial impact	13	5	52
Consumption impact	11	5	55
Total impact on Darwin economy	45	16	159

Source: National Institute of Economic and Industry Research (NIEIR) ©2019. Compiled and presented in economy.id by .id , the population experts.

1.8 Total economic impacts

The combination of all direct and ripple effects results generated \$98 million in gross value added to the local economy in 2019/20. This value represents Darwin Council's contribution to Gross Regional Product (1.3% of GRP – total industry value added).

Impact Summary – Darwin Council – Combined impacts (\$105m) – 2019/20

Total economic impacts	Output (\$m)	Value-added (\$m)	Local jobs (headcount)
Operational impacts			
Direct impact on Local Government	85	59	358
Industrial impact	21	10	88
Consumption impact	29	13	143
Operational impact on Darwin economy	134	82	589
Capital works impacts			
Direct impact on Construction	21	6	52
Industrial impact	13	5	52
Consumption impact	11	5	55
Capital works impact on Darwin economy	45	16	159
Total impacts			
Direct impact	105	65	410
Industrial impact	34	15	140
Consumption impact	40	18	198
Total impact on Darwin economy	179	98	749

Source: National Institute of Economic and Industry Research (NIEIR) ©2019. Compiled and presented in economy.id by .id , the population experts.

Note: The economic impact model is updated each year to take account of changes to the local economy. Multipliers for a region may change over time in response to changes in the economic and industry structure as well as price changes.