

Modelling economic impacts

All organisations who subscribe to the economy.id package have the option of utilising the economic impact tool to model the direct and flow-on impacts of new investment in a region, or alternatively the loss of a business.

This guide will take you through how to use the tool for modelling and offer some tips for making your impact analysis results as reliable as possible.

New and improve economic impact model

Your feedback has shown us you want to do even more with the tool and that's why we have created some major enhancements.

- Infographics - simplify complex information and deliver a clear message
- Construction and Operational Impacts - model both impacts at the same time
- Multiple Industries - model projects that deliver benefits to more than one industry
- Speed it now operates even quicker, so you get the answers you want even sooner.



Input example

A step-by-step guide to using the economic impact modelling tool

- 1 Open the [economic profile](#) for your area
- 2 Under *Economic tools*, select the *Economic impact model*

username

password

Sign into Economy.id

For many subscribers, a login will be required to access this feature. Contact your administrator for access. Not sure who your administrator is? [Get in touch with us here.](#)

- 3 Before starting any modelling, you need to understand what industries are likely impacted by the new investment or loss of investment/business operation. Most new investment will have a construction phase and then a post-construction, or ongoing operational, phase. If you are unsure of what industry to model, contact one of .id's consultants for advice.
- 4 Once the model page is loaded, enter a title for the project. This helps with building the report, tables and charts on the page.

1) Enter a title for the project:

- 5 You can now start modelling the impact of your project. If your project includes a construction phase click **Yes** to *Does the project involve construction (capax)?* You can now select the type of construction (select sectors impacted in construction phase), the construction value and how many years construction will last. For example, a successful Building Better Regions Fund application we assisted with involved a \$6 million redevelopment of the Caloundra Events Centre over two years.

2) Does the project involve construction (capex)? :

NO YES

Select sectors impacted in construction phase

How much is the estimated construction cost? (\$m)

How many years is construction estimated to take?

- 6 Now you can move on to modelling the operational phase of the project. Using the example above, the redevelopment of the Caloundra Events Centre was estimated to increase Creative and Performing Arts revenue by \$700,000 p.a. post redevelopment. This would be input as follows:

3) Ongoing / operational phase - Select Industries :

Select sector(s) impacted in operational phase:

Impact measure:

Amount

Add/remove sector

- 7 In some cases, you might want to model the impact of other elements of the project. To do this just click the plus button under Add/remove sector.
- 8 Building on the example above, lets say that the redevelopment also provided an opportunity for a hospitality operator to open a café as part of the redevelopment (this was not part of the BBRF application but used by way of example). The café was estimated to employ around 5 people. This would be input as follows:

3) Ongoing / operational phase - Select Industries :

| Select sector(s) impacted in operational phase: | Impact measure: | Amount | Add/remove sector |
|---|-----------------|--------|-------------------|
| Creative and Performing Arts Activities | Sales (\$m) | 0.70 | - |
| Food and Beverage Services | Jobs (number) | 5 | - + |

9 Now just click submit to run the impact model:

- Construction: +\$6m over 2 years
- Creative and Performing Arts: +\$0.7m per year post construction
- Food and Beverage Services: +5 ongoing jobs post construction

10 The tool will generate a report that outlines local impacts as well as impacts outside the region. Impacts are broken into three types:

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 via increased demand through supply chains ('ripple effect').

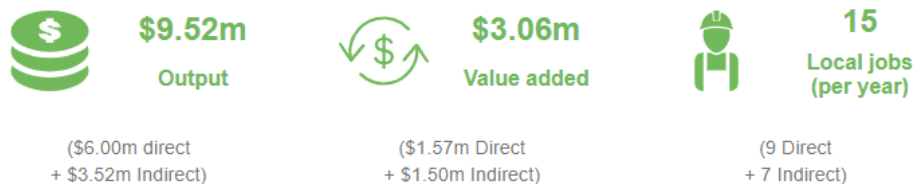
Induced impacts (Consumption): An increase in revenue (from direct and indirect impacts) means that businesses increase wages and salaries by hiring more employees, increasing hours worked and raising wages. Households will then increase spending at local businesses.

Example output for construction phase and operation phase impacts

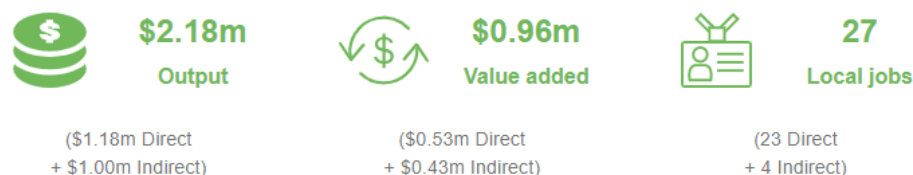
Economic impact highlights

The economic impacts of your project are summarised in the infographic below

Construction Phase (over a 2 year period)



Operational Phase (per year)



- 11 The impacts are then detailed for both construction phase and operation phase. Just click the tab to analyse the different phases.


Summary of impacts

Construction phase Operational phase

The project in Sunshine Coast is estimated to inject \$6.00m of direct output into the local economy over 2 years. This would lead to an uplift of \$1.57m in direct value added and support 8 direct local jobs per annum during the construction phase of the project.

From this direct expansion in the economy, it is anticipated that there would be flow on effects into other related intermediate industries as well as increased new employee consumption expenditure. These combined flow-on effects are estimated to generate an additional \$3.52m in output, \$1.50m in value added and support another 7 in direct local jobs per year during the construction phase of the project.

The total estimated construction phase local impact is \$9.52m in output, \$3.06m in value added and 15 local jobs per annum over 2 years.

Construction phase (2 year period) export 

Sunshine Coast - Modelling the impact of:
- adding \$8m in Construction

| Economic measure | Output (\$m) | Value-added (\$m) | Local Jobs (annual) | Residents jobs (annual) |
|--|--------------|-------------------|---------------------|-------------------------|
| Impacts on Sunshine Coast economy | -- | -- | -- | -- |
| Direct impact on selected sector(s) | 6.00 | 1.57 | 8 | -- |
| Industrial impact | 1.80 | 0.79 | 3 | -- |
| Consumption impact | 1.72 | 0.70 | 3 | -- |
| Total impact on Sunshine Coast economy | 9.52 | 3.06 | 15 | 13 |
| Multipliers | -- | -- | -- | -- |
| Type 1 multiplier (direct and industrial) | 1.30 | 1.51 | 1.40 | -- |
| Type 2 multiplier (direct, industrial and consumption) | 1.59 | 1.98 | 1.78 | -- |
| Impact on Queensland economy | -- | -- | -- | -- |
| Total impact - Queensland outside Sunshine Coast | 1.89 | 0.72 | 3 | 5 |
| Total impact Queensland economy | 11.21 | 3.78 | 18 | 18 |
| Impact on Australian economy | -- | -- | -- | -- |
| Total impact outside Queensland economy | 2.09 | 0.90 | 3 | 4 |
| Total impact on Australian economy | 13.29 | 4.68 | 22 | 22 |

Source: National Institute of Economic and Industry Research (NIEIR) ©2021. Compiled and presented in economy.id by .id (informed decisions). Note: All \$ values are expressed in 2018/19 base year dollar terms.

- 12 The impacts are detailed by phase (construction and operation) for five areas:

Local Jobs: this is the equivalent full-time employment impact of the project. For the construction phase it is an estimate of jobs created over the life of the project, for the operational phase it is ongoing annual impacts.


Value added: output itself is not always the best measure of economic impact as some industries have high levels of output but require large amounts of input expenditure to achieve that. In this instance, value added is the contribution specifically to Sunshine Coast industries.

Output: total sales/gross revenue impact on the economy

Residents Jobs: this is the employment impact for Sunshine Coast residents. It takes into account that not all jobs on the project will be filled by local residents. This will differ depending on the region and industry's self-sufficiency (the proportion of local workers in the local area who also live in the region) which in the case of Sunshine Coast is quite high.

Impact on GRP: Value added by industry represents the industry component of Gross Regional Product (GRP).

- 13 The report will also show how impacts (jobs and value added) are distributed across different industries in the economy. You can see this by scrolling down the page.

Employment by industry sector - Operational Phase export 

Sunshine Coast - modeling the impact on local jobs, of:
 - adding \$0.7m sales in Creative and Performing Arts Activities
 - adding 5 jobs in Food and Beverage Services

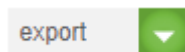
| Industry sector (1-digit ANSIC) | Existing jobs in Sunshine Coast | Jobs created in Sunshine Coast | Jobs created outside of Sunshine Coast | Jobs created for Sunshine Coast residents |
|---|---------------------------------|--------------------------------|--|---|
| Agriculture, Forestry and Fishing | 5,601 | 0 | 0 | 0 |
| Mining | 835 | 0 | 0 | 0 |
| Manufacturing | 14,588 | 0 | 0 | 0 |
| Electricity, Gas, Water and Waste Services | 2,383 | 0 | 0 | 0 |
| Construction | 40,619 | 0 | 0 | 0 |
| Wholesale Trade | 7,267 | 0 | 0 | 0 |
| Retail Trade | 32,554 | 0 | 0 | 0 |
| Accommodation and Food Services | 25,856 | 3 | 0 | 2 |
| Transport, Postal and Warehousing | 8,556 | 0 | 0 | 0 |
| Information Media and Telecommunications | 3,550 | 0 | 0 | 0 |
| Financial and Insurance Services | 8,210 | 0 | 0 | 0 |
| Rental, Hiring and Real Estate Services | 7,277 | 0 | 0 | 0 |
| Professional, Scientific and Technical Services | 18,673 | 0 | 0 | 0 |
| Administrative and Support Services | 9,086 | 0 | 0 | 0 |
| Public Administration and Safety | 10,425 | 0 | 0 | 0 |
| Education and Training | 29,445 | 0 | 0 | 0 |
| Health Care and Social Assistance | 46,452 | 0 | 0 | 0 |
| Arts and Recreation Services | 6,786 | 9 | 0 | 9 |
| Other Services | 11,476 | 0 | 0 | 0 |
| Total industries | 289,638 | 13 | 2 | 13 |

Source: National Institute of Economic and Industry Research (NIEIR) ©2021. Compiled and presented in economy.id by .id (informed decisions).

- 14 You can export the whole report in word or pdf format by clicking on the export link at the top of the page:



or export just the data by clicking the drop-down export button for the specific table:



About the economic impact model

The benefit of the .id tool is it uses independent modelling from NIEIR to show localised flow-on effects of economic productivity and jobs creation resulting from the impact of your project to other sectors and the total economy.

The economic impact model takes a bottom-up approach and is specifically tailored to your economy, utilising a local input-output matrix that describes how the different industries in an economy interrelate, and how supply chains operate in the local area. The impact of local production on areas outside the local area is also modelled, based on Journey to Work information from the Census, updated for known recent employment projects.

If you are not using the NIEIR model, you need to ensure your model caters for:

- Import leakage – the reduction in local impacts because a large amount of supplies is imported into the region
- Income leakage – the reduction in local impacts because workers and business owners may reside outside the region

Finding the inputs for your economic modelling

There are many sources we recommend you use to help tell the story of your area and support your application. These sources vary state by state, but you should be able to find your equivalent;

- Peak tourism bodies ([Destination New South Wales](#), [Visit Victoria](#), [Tourism & Events Queensland](#), [Tourism Western Australia](#), [South Australian Tourism Commission](#), [Visit Canberra](#), [Tourism NT](#), [Tourism Tasmania](#))
- Investment agencies ([Trade & Investment Victoria](#), [Department of Industry NSW](#), [Trade & Investment Queensland](#), [Department of Jobs, Tourism, Science and Innovation WA](#), [Investment Attraction South Australia](#), [Coordinator-General's Office Tasmania](#), [Invest Canberra](#), [Invest NT](#))
- State based regional development agencies (e.g. [Regional Development Victoria](#))
- [Regional Development Australia](#) Committees (RDAs). The RDA for your region will give you valuable advice to ensure your project is aligned with the desired regional development outcomes.



Consultant tip

Always show net additional impact, or the difference between the project case and the base case scenario (even if the base case is 0 benefit). The base case is the situation that would have occurred without the infrastructure, program or new event. It is not necessarily a 'do nothing' case as it is likely that some kind of change to infrastructure or operations will occur in the future regardless of whether the project goes ahead. It is often described as the 'do minimum' case.¹ If you are not comparing the project case to a realistic base case, you may be generating an exaggerated benefit/impact. This could be looked at unfavourably in the assessment of your application.

¹ See: Infrastructure Australia, 2016, *Assessment Framework Detailed Technical Guidance*, p.28.

When to use economic impact vs event impact model (or both)

As a rule of thumb, if increased visitation (especially from outside your LGA) is the main goal of your project, an event impact model will be best. If your project involves increasing jobs, productivity or output of goods and services, an economic impact assessment is the way to go.

Stuck? Still have questions?

[Contact our consulting team](#) to discuss how we can help with your application.

Rob Hall

Urban Economist, .id consulting
03 9417 2205 | rob@id.com.au

Keenan Jackson

Urban Economist, .id consulting
03 9417 2205 | keenan@id.com.au