Monash
Economic impact model

Economic impact modelling enables the Monash to explore how change in employment or output(sales) in one sector of the local economy will impact on all other sectors of the economy, by modelling the flow-on effects across different industries.
This provides the City of Monash with powerful evidence to advocate against industrial closures or strategically target new industry sectors which are likely to have the greatest positive economic impact.
Different industries will have different flow on effects. Adding jobs in a particular sector will not only add to the value of that sector, but also to other industries related to the supply chain (eg. suppliers, wholesalers) and service industries (retail, food services, administration) which will expand to service the additional workforce. Jobs in associated industries may be added in the local area or outside it, based on journey to work information.
The economic impacts are calculated using an input-output model which is derived from the local economy microsimulation model by National Economics (NIEIR).
To use the model, simply input the number of jobs (per year) to be added to (+) or removed (-) from the economy in a particular industry sector. The results show the theoretical addition (or loss) to the local economy of jobs and value added by industry sector. It also shows the proportion of the new employment that would occur inside and outside the City of Monash.
To model construction impacts related to a project, input the total cost of construction or direct jobs created. The results shown will represent total direct and indirect impacts over the life of the construction period. To estimate annual impacts, simply divide the total impacts by the estimated life of the project in years (e.g. divide results by 3 if the project will take 3 years to build, or 1.5 for 18 months).

Industry: Building Construction
Impact modelled: ADDITION of $7.0 million sales
Company name: City of Monash

Impact Summary

City of Monash - Modelling the effect of adding $7.0m sales in Building Construction - Inflation adjusted

Summary	Output ($m)	Value-added ($m)	Local jobs	Residents jobs
Starting position City of Monash (year ended June 2019)	--	--	--	--
Building Construction	1,622.33	359.53	6,155	2,501
All industries	35,445.43	15,919.07	145,328	101,185
Impacts on City of Monash economy	--	--	--	--
Direct impact on Building Construction sector	7.00	1.55	27	--
Industrial impact	1.63	0.63	6	--
Consumption impact	0.16	0.06	1	--
Total impact on City of Monash economy	**8.79**	**2.25**	**33**	**7**
▪ Type 1 multiplier (direct & industrial)	1.23	1.41	1.23	--
▪ Type 2 multiplier (direct, industrial & consumption)	1.26	1.45	1.26	--
Impact on Victoria economy	--	--	--	--
Total impact - Victoria outside City of Monash	5.22	2.31	20	46
Total impact Victoria economy	14.00	4.56	53	53
Impact on Australian economy	--	--	--	--
Total impact outside Victoria economy	1.17	0.52	4	4
Total impact on Australian economy	**15.18**	**5.08**	**57**	**58**

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

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Note: All $ values are expressed in 2016/17 base year dollar terms.

Impact on Output

The direct addition of $7.0 million annual output in the Building Construction sector of the City of Monash economy would lead to an increase in indirect demand for intermediate goods and services across related industry sectors. These indirect industrial impacts (Type 1) are estimated to be an additional $1.63m in Output, representing a Type 1 Output multiplier of 1.23.

There would be an additional contribution to the City of Monash economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in Output of $0.16m.

The combination of all direct, industrial and consumption effects would result in total estimated rise in Output of $8.79m in the City of Monash economy, representing a Type 2 Output multiplier of 1.26.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $6.39m in Output.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be $15.18m added to Australia's Output.

Impact on Local Employment (jobs)

The direct addition of $7.0 million annual output in the Building Construction sector of the City of Monash economy is estimated to lead to a corresponding direct addition of 27 jobs in the local Building Construction sector. From this direct expansion in the economy it is anticipated that there would be flow on effects into other related intermediate industries, creating an additional 6 jobs. This represents a Type 1 Employment multiplier of 1.23.

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 1 jobs through consumption impacts.

The combination of all direct, industrial and consumption effects would result in a total estimated increase of 33 jobs located in the City of Monash. This represents a Type 2 Employment multiplier of 1.26.

Employment impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy creating a further 24 jobs.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be an addition of 57 jobs.

Impact on value added

The direct addition of $7.0 million annual output in the Building Construction sector of the City of Monash economy would lead to a corresponding direct increase in value added of $1.55m. A further $0.63m in value added would be generated from related intermediate industries. These indirect industrial impacts represent a Type 1 value added multiplier of 1.41.

There would be an additional contribution to the City of Monash economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in value added of $0.06m.

The combination of all direct, industrial and consumption effects would result in an estimated addition in value added of $2.25m in the City of Monash economy, representing a Type 2 value added multiplier of 1.45.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $2.83m in value added.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be $5.08m added to Australia's value added.

Impact on GRP

Value added by industry represents the industry component of Gross Regional Product (GRP). The impact on the City of Monash's GRP as a result of this change to the economy is directly equivalent to the change in value added outlined in the section above.

In summary, GRP in the City of Monash is estimated to increase by $2.25m.

The effect on the Australian economy (including City of Monash) is estimated to be a growth in Gross Domestic Product (GDP) of $5.08m.

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Impact on employment by industry sector

This table shows a detailed breakdown of how employment will be affected by the addition of $7.0 million annual output in the Building Construction sector of the City of Monash economy. This includes both the direct industrial impact (Type 1) and ongoing consumption impact (Type 2).

Employment by industry sector

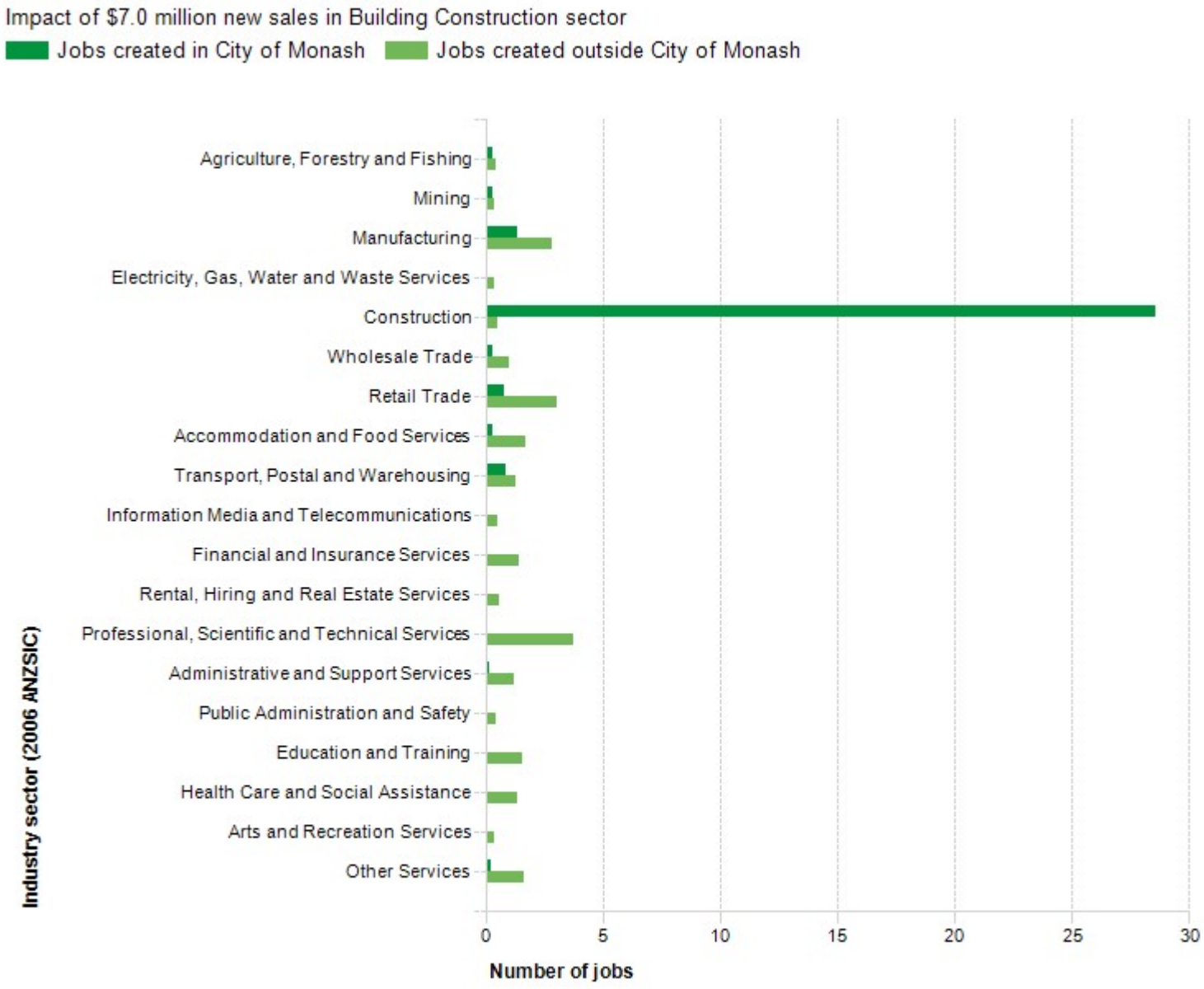
City of Monash - Impact of $7.0 million new sales in 'Building Construction' output (Type 1 & 2 combined impact)

Industry sectors (1-digit ANSIC)	Existing jobs in the City of Monash*	Employment impacts: Jobs created in the City of Monash	Employment impacts: Jobs created outside of the City of Monash	Employment impacts: Jobs created for City of Monash residents
Agriculture, Forestry and Fishing	242	0	0	0
Mining	82	0	0	0
Manufacturing	14,533	1	3	0
Electricity, Gas, Water and Waste Services	855	0	0	0
Construction	16,204	29	0	5
Wholesale Trade	10,060	0	1	0
Retail Trade	16,797	1	3	0
Accommodation and Food Services	5,210	0	2	0
Transport, Postal and Warehousing	6,070	1	1	0
Information Media and Telecommunications	2,741	0	1	0
Financial and Insurance Services	4,057	0	1	0
Rental, Hiring and Real Estate Services	2,022	0	1	0
Professional, Scientific and Technical Services	13,858	0	4	0
Administrative and Support Services	5,712	0	1	0
Public Administration and Safety	4,107	0	0	0
Education and Training	18,478	0	2	0
Health Care and Social Assistance	18,624	0	1	0
Arts and Recreation Services	1,183	0	0	0
Other Services	4,492	0	2	0
Total Industries	145,328	33	24	7

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

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Employment by industry sector



Source: National Institute of Economic and Industry Research (NIEIR) ©2019
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Resident employment impacts

The combination of all direct, industrial and consumption effects of adding $7.0 million annual output to the Building Construction sector of the City of Monash economy would be an estimated increase of 7 jobs located in the City of Monash and 51 jobs located outside the City of Monash – a total of 58 jobs.

As some of the City of Monash's residents leave the area to work and residents of other areas enter the City of Monash to work, not all of these jobs will be filled by City of Monash residents. It is estimated that of the 58 jobs created, 7 or 12.1% would be expected to be filled by City of Monash residents.

Industry employment impacts

The combination of all direct, industrial and consumption effects of adding $7.0 million annual output to the Building Construction sector of the City of Monash economy would result in an estimated increase of 33 jobs located in the City of Monash.

Of the 33 jobs created within the City of Monash, 29, or 85.7% would be added within Construction the sector. This includes the direct jobs created in the sector, and the effect of flow-on jobs within the same sector.

The largest increase in jobs outside Construction would be in Manufacturing (1), Transport, Postal and Warehousing (1) and Retail Trade (1).

A total of 24 jobs are estimated to be created outside the City of Monash, with the largest number being in Professional, Scientific and Technical Services (4) Retail Trade (3) and Manufacturing (3).

Impact on value added by industry sector

This table shows a detailed breakdown of how adding $7.0 million annual output in the Building Construction sector of the City of Monash economy will impact on the value added of each industry sector. This highlights the relationships between industry. This includes both the direct industrial impact (Type 1) and ongoing consumption impact (Type 2).

Value-added by industry

City of Monash - Impact of $7.0 million new sales in 'Building Construction' output (Type 1 & 2 combined impact)

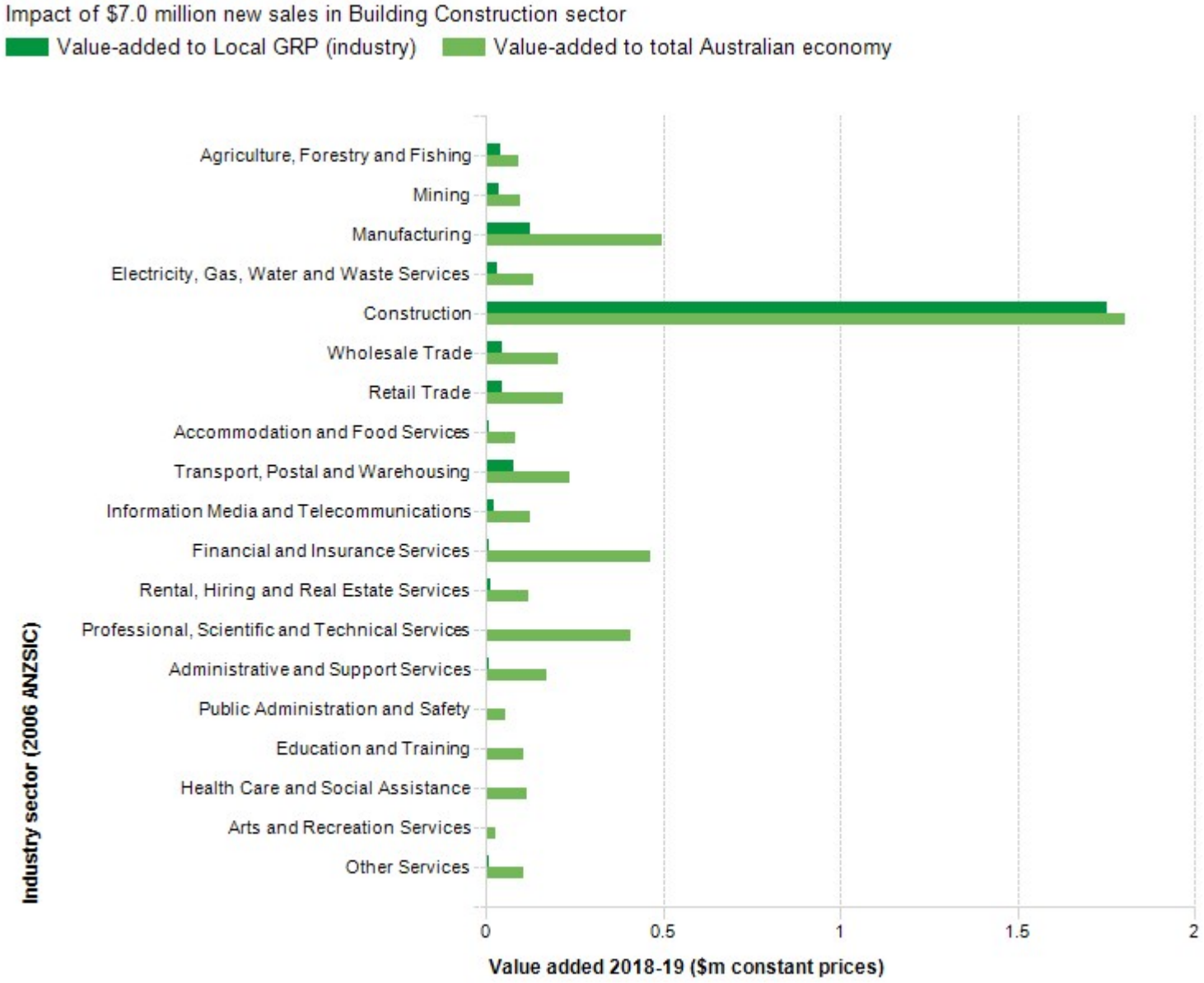
Value added 2018-19 ($m constant prices)

Industry sectors (1-digit ANSIC)	Current local value-added*	Value-added to the City of Monash	Percentage change	Value-added to Australian economy
Agriculture, Forestry and Fishing	$32.81	$0.04	0.1%	$0.09
Mining	$8.41	$0.04	0.4%	$0.10
Manufacturing	$1,474.10	$0.13	0.0%	$0.50
Electricity, Gas, Water and Waste Services	$282.67	$0.03	0.0%	$0.13
Construction	$1,288.57	$1.75	0.1%	$1.80
Wholesale Trade	$1,608.37	$0.05	0.0%	$0.20
Retail Trade	$1,085.46	$0.05	0.0%	$0.22
Accommodation and Food Services	$222.09	$0.01	0.0%	$0.08
Transport, Postal and Warehousing	$720.00	$0.08	0.0%	$0.24
Information Media and Telecommunications	$609.46	$0.02	0.0%	$0.13
Financial and Insurance Services	$1,274.24	$0.01	0.0%	$0.47
Rental, Hiring and Real Estate Services	$514.26	$0.01	0.0%	$0.12
Professional, Scientific and Technical Services	$1,558.24	$0.00	0.0%	$0.41
Administrative and Support Services	$874.24	$0.01	0.0%	$0.17
Public Administration and Safety	$574.93	$0.00	0.0%	$0.05
Education and Training	$1,755.58	$0.00	0.0%	$0.11
Health Care and Social Assistance	$1,676.78	$0.01	0.0%	$0.12
Arts and Recreation Services	$80.58	$0.00	0.0%	$0.03
Other Services	$278.28	$0.01	0.0%	$0.11
Total Industries	$15,919.07	$2.25	0.0%	$5.08

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Value-added by industry



Source: National Institute of Economic and Industry Research (NIEIR) ©2019
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The combination of all direct, industrial and consumption effects of adding $7.0 million annual output to the Building Construction sector of the City of Monash economy would result in an estimated increase in value added of $2.25m in the City of Monash economy.
The Construction sector of the economy is estimated to increase in value added by 0.1%, with the total City of Monash economy estimated to grow by 0%.
The main impacts in value added within City of Monash, outside of Construction, are in Manufacturing (0.13m), Transport, Postal and Warehousing (0.08m) and Wholesale Trade (0.05m).

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Monash
Economic impact model

Economic impact modelling enables the Monash to explore how change in employment or output(sales) in one sector of the local economy will impact on all other sectors of the economy, by modelling the flow-on effects across different industries.
This provides the City of Monash with powerful evidence to advocate against industrial closures or strategically target new industry sectors which are likely to have the greatest positive economic impact.
Different industries will have different flow on effects. Adding jobs in a particular sector will not only add to the value of that sector, but also to other industries related to the supply chain (eg. suppliers, wholesalers) and service industries (retail, food services, administration) which will expand to service the additional workforce. Jobs in associated industries may be added in the local area or outside it, based on journey to work information.
The economic impacts are calculated using an input-output model which is derived from the local economy microsimulation model by National Economics (NIEIR).
To use the model, simply input the number of jobs (per year) to be added to (+) or removed (-) from the economy in a particular industry sector. The results show the theoretical addition (or loss) to the local economy of jobs and value added by industry sector. It also shows the proportion of the new employment that would occur inside and outside the City of Monash.
To model construction impacts related to a project, input the total cost of construction or direct jobs created. The results shown will represent total direct and indirect impacts over the life of the construction period. To estimate annual impacts, simply divide the total impacts by the estimated life of the project in years (e.g. divide results by 3 if the project will take 3 years to build, or 1.5 for 18 months).

Industry: Construction Services
Impact modelled: ADDITION of $8.0 million sales
Company name: City of Monash

Impact Summary

City of Monash - Modelling the effect of adding $8.0m sales in Construction Services - Inflation adjusted

Summary	Output ($m)	Value-added ($m)	Local jobs	Residents jobs
Starting position City of Monash (year ended June 2019)	--	--	--	--
Construction Services	2,425.11	810.17	9,398	3,836
All industries	35,445.43	15,919.07	145,328	101,185
Impacts on City of Monash economy	--	--	--	--
Direct impact on Construction Services sector	8.00	2.67	31	--
Industrial impact	1.59	0.63	7	--
Consumption impact	0.29	0.12	1	--
Total impact on City of Monash economy	**9.88**	**3.42**	**39**	**10**
▪ Type 1 multiplier (direct & industrial)	1.20	1.24	1.21	--
▪ Type 2 multiplier (direct, industrial & consumption)	1.23	1.28	1.25	--
Impact on Victoria economy	--	--	--	--
Total impact - Victoria outside City of Monash	7.05	3.13	28	58
Total impact Victoria economy	16.92	6.55	67	68
Impact on Australian economy	--	--	--	--
Total impact outside Victoria economy	1.41	0.62	5	5
Total impact on Australian economy	**18.33**	**7.17**	**72**	**73**

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

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Note: All $ values are expressed in 2016/17 base year dollar terms.

Impact on Output

The direct addition of $8.0 million annual output in the Construction Services sector of the City of Monash economy would lead to an increase in indirect demand for intermediate goods and services across related industry sectors. These indirect industrial impacts (Type 1) are estimated to be an additional $1.59m in Output, representing a Type 1 Output multiplier of 1.20.

There would be an additional contribution to the City of Monash economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in Output of $0.29m.

The combination of all direct, industrial and consumption effects would result in total estimated rise in Output of $9.88m in the City of Monash economy, representing a Type 2 Output multiplier of 1.23.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $8.45m in Output.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be $18.33m added to Australia's Output.

Impact on Local Employment (jobs)

The direct addition of $8.0 million annual output in the Construction Services sector of the City of Monash economy is estimated to lead to a corresponding direct addition of 31 jobs in the local Construction Services sector. From this direct expansion in the economy it is anticipated that there would be flow on effects into other related intermediate industries, creating an additional 7 jobs. This represents a Type 1 Employment multiplier of 1.21.

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 1 jobs through consumption impacts.

The combination of all direct, industrial and consumption effects would result in a total estimated increase of 39 jobs located in the City of Monash. This represents a Type 2 Employment multiplier of 1.25.

Employment impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy creating a further 33 jobs.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be an addition of 72 jobs.

Impact on value added

The direct addition of $8.0 million annual output in the Construction Services sector of the City of Monash economy would lead to a corresponding direct increase in value added of $2.67m. A further $0.63m in value added would be generated from related intermediate industries. These indirect industrial impacts represent a Type 1 value added multiplier of 1.24.

There would be an additional contribution to the City of Monash economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in value added of $0.12m.

The combination of all direct, industrial and consumption effects would result in an estimated addition in value added of $3.42m in the City of Monash economy, representing a Type 2 value added multiplier of 1.28.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $3.75m in value added.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be $7.17m added to Australia's value added.

Impact on GRP

Value added by industry represents the industry component of Gross Regional Product (GRP). The impact on the City of Monash's GRP as a result of this change to the economy is directly equivalent to the change in value added outlined in the section above.

In summary, GRP in the City of Monash is estimated to increase by $3.42m.

The effect on the Australian economy (including City of Monash) is estimated to be a growth in Gross Domestic Product (GDP) of $7.17m.

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Impact on employment by industry sector

This table shows a detailed breakdown of how employment will be affected by the addition of $8.0 million annual output in the Construction Services sector of the City of Monash economy. This includes both the direct industrial impact (Type 1) and ongoing consumption impact (Type 2).

Employment by industry sector

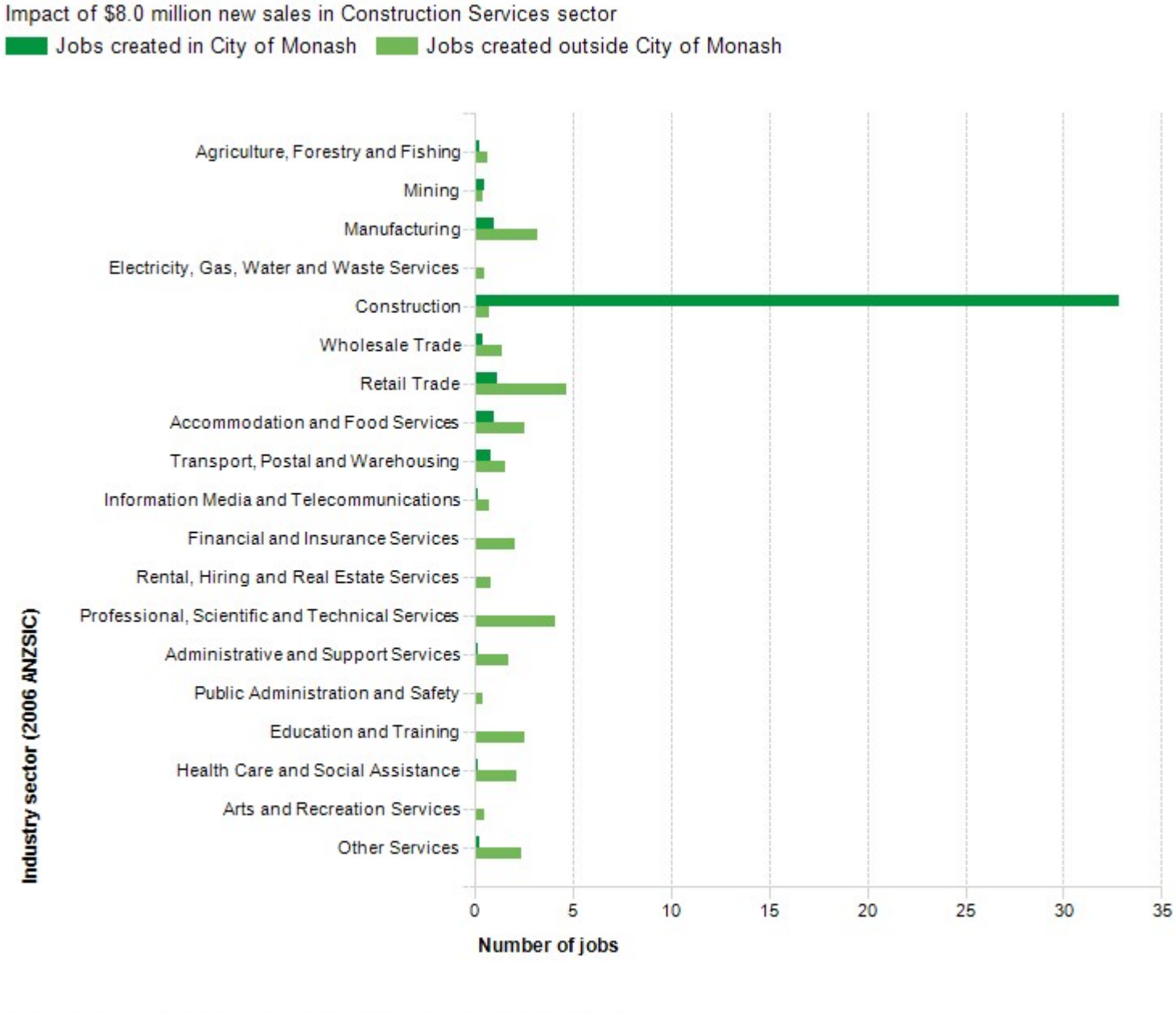
City of Monash - Impact of $8.0 million new sales in 'Construction Services' output (Type 1 & 2 combined impact)

Industry sectors (1-digit ANSIC)	Existing jobs in the City of Monash*	Employment impacts: Jobs created in the City of Monash	Employment impacts: Jobs created outside of the City of Monash	Employment impacts: Jobs created for City of Monash residents
Agriculture, Forestry and Fishing	242	0	1	0
Mining	82	1	0	0
Manufacturing	14,533	1	3	0
Electricity, Gas, Water and Waste Services	855	0	1	0
Construction	16,204	33	1	7
Wholesale Trade	10,060	0	1	0
Retail Trade	16,797	1	5	0
Accommodation and Food Services	5,210	1	3	0
Transport, Postal and Warehousing	6,070	1	2	0
Information Media and Telecommunications	2,741	0	1	0
Financial and Insurance Services	4,057	0	2	0
Rental, Hiring and Real Estate Services	2,022	0	1	0
Professional, Scientific and Technical Services	13,858	0	4	0
Administrative and Support Services	5,712	0	2	0
Public Administration and Safety	4,107	0	0	0
Education and Training	18,478	0	3	0
Health Care and Social Assistance	18,624	0	2	0
Arts and Recreation Services	1,183	0	1	0
Other Services	4,492	0	2	0
Total Industries	145,328	39	33	10

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Employment by industry sector



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Resident employment impacts

The combination of all direct, industrial and consumption effects of adding $8.0 million annual output to the Construction Services sector of the City of Monash economy would be an estimated increase of 10 jobs located in the City of Monash and 63 jobs located outside the City of Monash – a total of 73 jobs.

As some of the City of Monash's residents leave the area to work and residents of other areas enter the City of Monash to work, not all of these jobs will be filled by City of Monash residents. It is estimated that of the 73 jobs created, 10 or 13.1% would be expected to be filled by City of Monash residents.

Industry employment impacts

The combination of all direct, industrial and consumption effects of adding $8.0 million annual output to the Construction Services sector of the City of Monash economy would result in an estimated increase of 39 jobs located in the City of Monash.

Of the 39 jobs created within the City of Monash, 33, or 84.4% would be added within Construction the sector. This includes the direct jobs created in the sector, and the effect of flow-on jobs within the same sector.

The largest increase in jobs outside Construction would be in Retail Trade (1), Manufacturing (1) and Accommodation and Food Services (1).

A total of 33 jobs are estimated to be created outside the City of Monash, with the largest number being in Retail Trade (5) Professional, Scientific and Technical Services (4) and Manufacturing (3).

Impact on value added by industry sector

This table shows a detailed breakdown of how adding $8.0 million annual output in the Construction Services sector of the City of Monash economy will impact on the value added of each industry sector. This highlights the relationships between industry. This includes both the direct industrial impact (Type 1) and ongoing consumption impact (Type 2).

Value-added by industry

City of Monash - Impact of $8.0 million new sales in 'Construction Services' output (Type 1 & 2 combined impact)

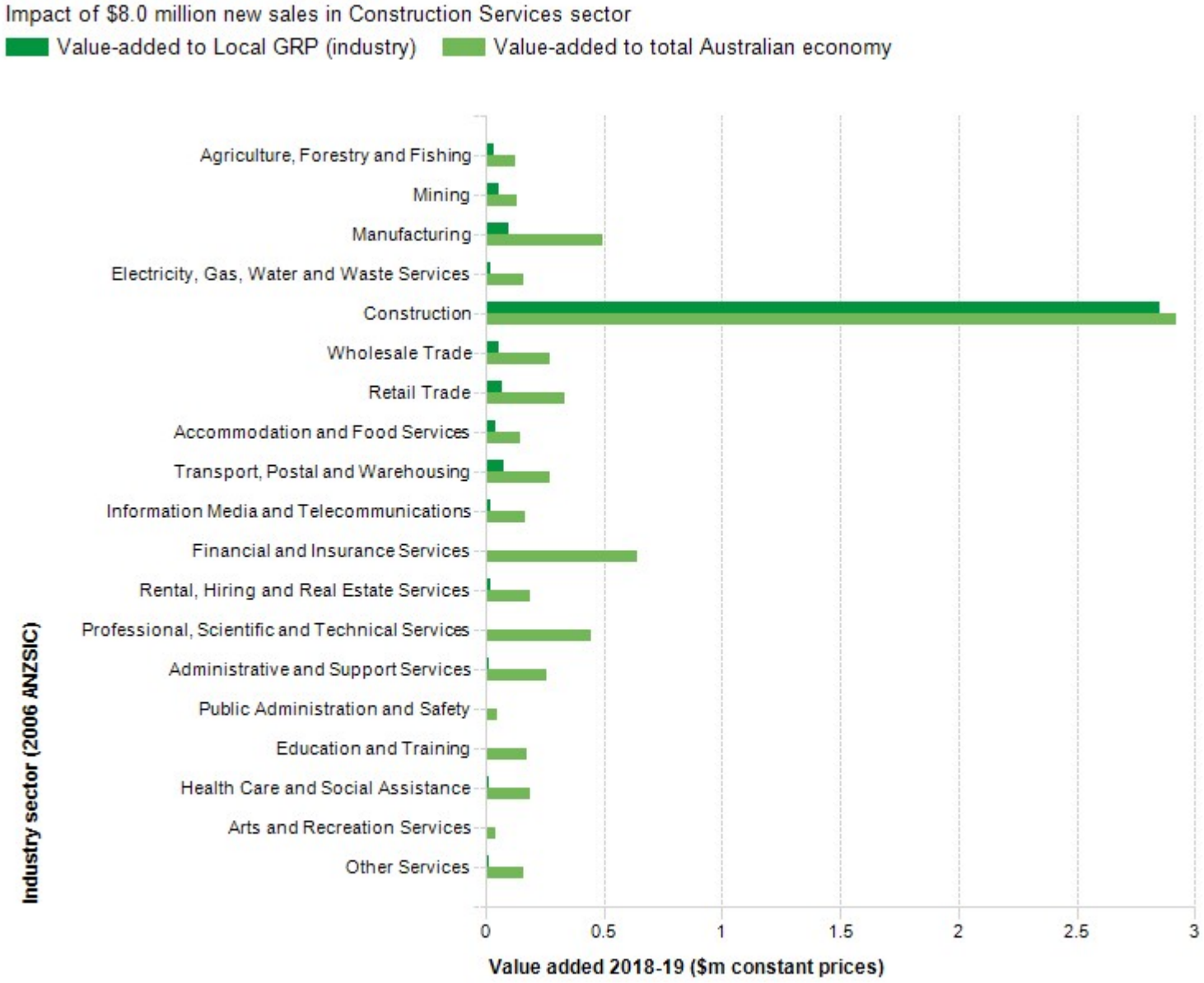
Value added 2018-19 ($m constant prices)

Industry sectors (1-digit ANSIC)	Current local value-added*	Value-added to the City of Monash	Percentage change	Value-added to Australian economy
Agriculture, Forestry and Fishing	$32.81	$0.04	0.1%	$0.12
Mining	$8.41	$0.06	0.7%	$0.14
Manufacturing	$1,474.10	$0.10	0.0%	$0.49
Electricity, Gas, Water and Waste Services	$282.67	$0.02	0.0%	$0.16
Construction	$1,288.57	$2.85	0.2%	$2.92
Wholesale Trade	$1,608.37	$0.06	0.0%	$0.27
Retail Trade	$1,085.46	$0.07	0.0%	$0.34
Accommodation and Food Services	$222.09	$0.04	0.0%	$0.15
Transport, Postal and Warehousing	$720.00	$0.08	0.0%	$0.27
Information Media and Telecommunications	$609.46	$0.02	0.0%	$0.17
Financial and Insurance Services	$1,274.24	$0.01	0.0%	$0.64
Rental, Hiring and Real Estate Services	$514.26	$0.02	0.0%	$0.19
Professional, Scientific and Technical Services	$1,558.24	$0.00	0.0%	$0.45
Administrative and Support Services	$874.24	$0.01	0.0%	$0.26
Public Administration and Safety	$574.93	$0.00	0.0%	$0.05
Education and Training	$1,755.58	$0.01	0.0%	$0.17
Health Care and Social Assistance	$1,676.78	$0.01	0.0%	$0.19
Arts and Recreation Services	$80.58	$0.00	0.0%	$0.04
Other Services	$278.28	$0.01	0.0%	$0.16
Total Industries	$15,919.07	$3.42	0.0%	$7.17

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Value-added by industry



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The combination of all direct, industrial and consumption effects of adding $8.0 million annual output to the Construction Services sector of the City of Monash economy would result in an estimated increase in value added of $3.42m in the City of Monash economy.
The Construction sector of the economy is estimated to increase in value added by 0.2%, with the total City of Monash economy estimated to grow by 0%.
The main impacts in value added within City of Monash, outside of Construction, are in Manufacturing (0.10m), Transport, Postal and Warehousing (0.08m) and Retail Trade (0.07m).

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Monash
Economic impact model

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The economic impacts are calculated using an input-output model which is derived from the local economy microsimulation model by National Economics (NIEIR).
To use the model, simply input the number of jobs (per year) to be added to (+) or removed (-) from the economy in a particular industry sector. The results show the theoretical addition (or loss) to the local economy of jobs and value added by industry sector. It also shows the proportion of the new employment that would occur inside and outside the City of Monash.
To model construction impacts related to a project, input the total cost of construction or direct jobs created. The results shown will represent total direct and indirect impacts over the life of the construction period. To estimate annual impacts, simply divide the total impacts by the estimated life of the project in years (e.g. divide results by 3 if the project will take 3 years to build, or 1.5 for 18 months).

Industry: Heavy and Civil Engineering Construction
Impact modelled: ADDITION of $15.0 million sales
Company name: City of Monash

Impact Summary

City of Monash - Modelling the effect of adding $15.0m sales in Heavy and Civil Engineering Construction - Inflation adjusted

Summary	Output ($m)	Value-added ($m)	Local jobs	Residents jobs
Starting position City of Monash (year ended June 2019)	--	--	--	--
Heavy and Civil Engineering Construction	351.24	118.87	651	337
All industries	35,445.43	15,919.07	145,328	101,185
Impacts on City of Monash economy	--	--	--	--
Direct impact on Heavy and Civil Engineering Construction sector	15.00	5.08	28	--
Industrial impact	1.81	0.73	7	--
Consumption impact	0.24	0.10	1	--
Total impact on City of Monash economy	**17.04**	**5.90**	**36**	**6**
▪ Type 1 multiplier (direct & industrial)	1.12	1.14	1.25	--
▪ Type 2 multiplier (direct, industrial & consumption)	1.14	1.16	1.29	--
Impact on Victoria economy	--	--	--	--
Total impact - Victoria outside City of Monash	11.30	5.03	44	74
Total impact Victoria economy	28.35	10.93	80	80
Impact on Australian economy	--	--	--	--
Total impact outside Victoria economy	2.60	1.14	9	10
Total impact on Australian economy	**30.95**	**12.07**	**90**	**90**

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Note: All $ values are expressed in 2016/17 base year dollar terms.

Impact on Output

The direct addition of $15.0 million annual output in the Heavy and Civil Engineering Construction sector of the City of Monash economy would lead to an increase in indirect demand for intermediate goods and services across related industry sectors. These indirect industrial impacts (Type 1) are estimated to be an additional $1.81m in Output, representing a Type 1 Output multiplier of 1.12.

There would be an additional contribution to the City of Monash economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in Output of $0.24m.

The combination of all direct, industrial and consumption effects would result in total estimated rise in Output of $17.04m in the City of Monash economy, representing a Type 2 Output multiplier of 1.14.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $13.90m in Output.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be $30.95m added to Australia's Output.

Impact on Local Employment (jobs)

The direct addition of $15.0 million annual output in the Heavy and Civil Engineering Construction sector of the City of Monash economy is estimated to lead to a corresponding direct addition of 28 jobs in the local Heavy and Civil Engineering Construction sector. From this direct expansion in the economy it is anticipated that there would be flow on effects into other related intermediate industries, creating an additional 7 jobs. This represents a Type 1 Employment multiplier of 1.25.

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 1 jobs through consumption impacts.

The combination of all direct, industrial and consumption effects would result in a total estimated increase of 36 jobs located in the City of Monash. This represents a Type 2 Employment multiplier of 1.29.

Employment impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy creating a further 54 jobs.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be an addition of 90 jobs.

Impact on value added

The direct addition of $15.0 million annual output in the Heavy and Civil Engineering Construction sector of the City of Monash economy would lead to a corresponding direct increase in value added of $5.08m. A further $0.73m in value added would be generated from related intermediate industries. These indirect industrial impacts represent a Type 1 value added multiplier of 1.14.

There would be an additional contribution to the City of Monash economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in value added of $0.10m.

The combination of all direct, industrial and consumption effects would result in an estimated addition in value added of $5.90m in the City of Monash economy, representing a Type 2 value added multiplier of 1.16.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $6.17m in value added.

The combined effect of economic multipliers in the City of Monash and the wider Australian economy is estimated to be $12.07m added to Australia's value added.

Impact on GRP

Value added by industry represents the industry component of Gross Regional Product (GRP). The impact on the City of Monash's GRP as a result of this change to the economy is directly equivalent to the change in value added outlined in the section above.

In summary, GRP in the City of Monash is estimated to increase by $5.90m.

The effect on the Australian economy (including City of Monash) is estimated to be a growth in Gross Domestic Product (GDP) of $12.07m.

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Impact on employment by industry sector

This table shows a detailed breakdown of how employment will be affected by the addition of $15.0 million annual output in the Heavy and Civil Engineering Construction sector of the City of Monash economy. This includes both the direct industrial impact (Type 1) and ongoing consumption impact (Type 2).

Employment by industry sector

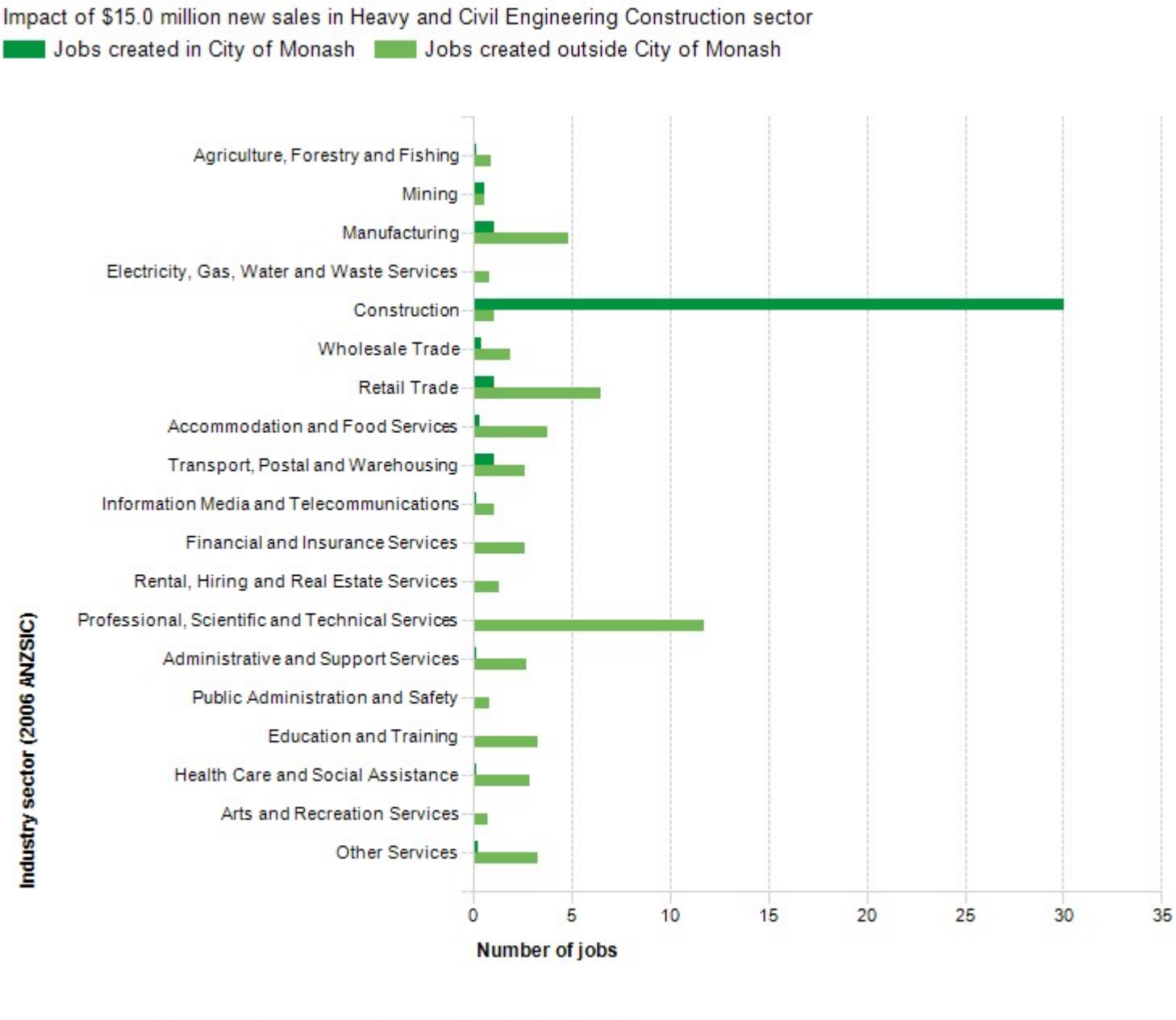
City of Monash - Impact of $15.0 million new sales in 'Heavy and Civil Engineering Construction' output (Type 1 & 2 combined impact)

Industry sectors (1-digit ANSIC)	Employment impacts			
	Existing jobs in the City of Monash*	Jobs created in the City of Monash	Jobs created outside of the City of Monash	Jobs created for City of Monash residents
Agriculture, Forestry and Fishing	242	0	1	0
Mining	82	1	1	0
Manufacturing	14,533	1	5	0
Electricity, Gas, Water and Waste Services	855	0	1	0
Construction	16,204	30	1	3
Wholesale Trade	10,060	0	2	0
Retail Trade	16,797	1	6	0
Accommodation and Food Services	5,210	0	4	0
Transport, Postal and Warehousing	6,070	1	3	0
Information Media and Telecommunications	2,741	0	1	0
Financial and Insurance Services	4,057	0	3	0
Rental, Hiring and Real Estate Services	2,022	0	1	0
Professional, Scientific and Technical Services	13,858	0	12	0
Administrative and Support Services	5,712	0	3	0
Public Administration and Safety	4,107	0	1	0
Education and Training	18,478	0	3	0
Health Care and Social Assistance	18,624	0	3	0
Arts and Recreation Services	1,183	0	1	0
Other Services	4,492	0	3	0
Total Industries	145,328	36	54	6

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Employment by industry sector



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Resident employment impacts

The combination of all direct, industrial and consumption effects of adding $15.0 million annual output to the Heavy and Civil Engineering Construction sector of the City of Monash economy would be an estimated increase of 6 jobs located in the City of Monash and 84 jobs located outside the City of Monash – a total of 90 jobs.
As some of the City of Monash's residents leave the area to work and residents of other areas enter the City of Monash to work, not all of these jobs will be filled by City of Monash residents. It is estimated that of the 90 jobs created, 6 or 6.7% would be expected to be filled by City of Monash residents.

Industry employment impacts

The combination of all direct, industrial and consumption effects of adding $15.0 million annual output to the Heavy and Civil Engineering Construction sector of the City of Monash economy would result in an estimated increase of 36 jobs located in the City of Monash.

Of the 36 jobs created within the City of Monash, 30, or 83.8% would be added within Construction the sector. This includes the direct jobs created in the sector, and the effect of flow-on jobs within the same sector.

The largest increase in jobs outside Construction would be in Transport, Postal and Warehousing (1), Retail Trade (1) and Manufacturing (1).

A total of 54 jobs are estimated to be created outside the City of Monash, with the largest number being in Professional, Scientific and Technical Services (12) Retail Trade (6) and Manufacturing (5).

Impact on value added by industry sector

This table shows a detailed breakdown of how adding $15.0 million annual output in the Heavy and Civil Engineering Construction sector of the City of Monash economy will impact on the value added of each industry sector. This highlights the relationships between industry. This includes both the direct industrial impact (Type 1) and ongoing consumption impact (Type 2).

Value-added by industry

City of Monash - Impact of $15.0 million new sales in 'Heavy and Civil Engineering Construction' output (Type 1 & 2 combined impact)

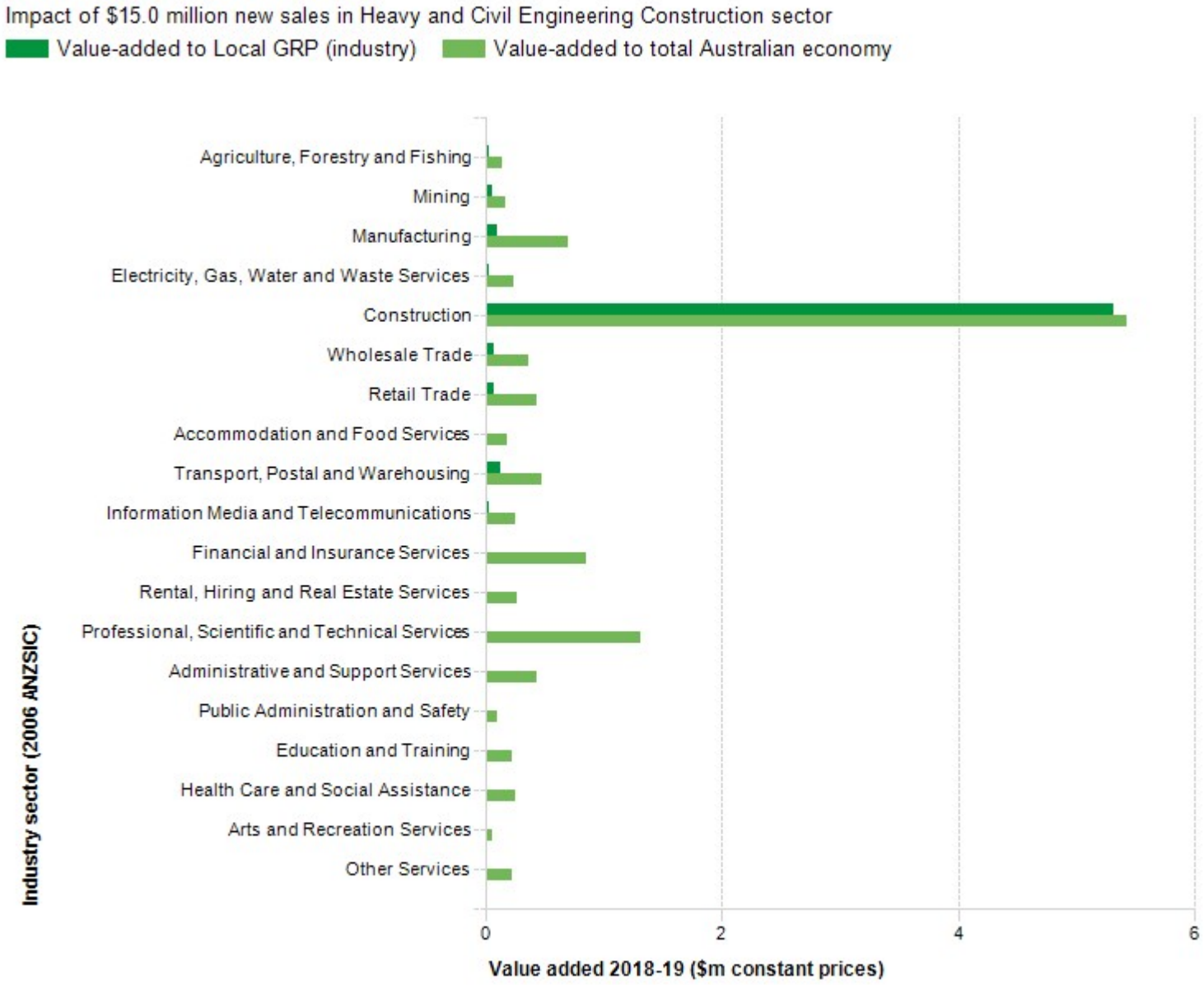
Value added 2018-19 ($m constant prices)

Industry sectors (1-digit ANSIC)	Current local value-added*	Value-added to the City of Monash	Percentage change	Value-added to Australian economy
Agriculture, Forestry and Fishing	$32.81	$0.02	0.1%	$0.14
Mining	$8.41	$0.06	0.7%	$0.17
Manufacturing	$1,474.10	$0.10	0.0%	$0.70
Electricity, Gas, Water and Waste Services	$282.67	$0.02	0.0%	$0.24
Construction	$1,288.57	$5.31	0.4%	$5.42
Wholesale Trade	$1,608.37	$0.06	0.0%	$0.36
Retail Trade	$1,085.46	$0.06	0.0%	$0.44
Accommodation and Food Services	$222.09	$0.01	0.0%	$0.18
Transport, Postal and Warehousing	$720.00	$0.13	0.0%	$0.47
Information Media and Telecommunications	$609.46	$0.03	0.0%	$0.25
Financial and Insurance Services	$1,274.24	$0.01	0.0%	$0.85
Rental, Hiring and Real Estate Services	$514.26	$0.01	0.0%	$0.26
Professional, Scientific and Technical Services	$1,558.24	$0.01	0.0%	$1.31
Administrative and Support Services	$874.24	$0.01	0.0%	$0.43
Public Administration and Safety	$574.93	$0.01	0.0%	$0.10
Education and Training	$1,755.58	$0.01	0.0%	$0.23
Health Care and Social Assistance	$1,676.78	$0.01	0.0%	$0.25
Arts and Recreation Services	$80.58	$0.00	0.0%	$0.05
Other Services	$278.28	$0.02	0.0%	$0.22
Total Industries	$15,919.07	$5.90	0.0%	$12.07

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Value-added by industry



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The combination of all direct, industrial and consumption effects of adding $15.0 million annual output to the Heavy and Civil Engineering Construction sector of the City of Monash economy would result in an estimated increase in value added of $5.90m in the City of Monash economy.
The Construction sector of the economy is estimated to increase in value added by 0.4%, with the total City of Monash economy estimated to grow by 0%.
The main impacts in value added within City of Monash, outside of Construction, are in Transport, Postal and Warehousing (0.13m), Manufacturing (0.10m) and Wholesale Trade (0.06m).

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