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Who creates jobs in Rotorua District? New or existing businesses?



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Foreword

Business attraction is a key focus of regional economic development. The rationale is that new businesses create jobs, which in turn support wellbeing in local communities. But does this focus make sense in the real world?

This report tests whether new or existing businesses are the engine for jobs growth in Rotorua. From an economic development perspective, these insights can help inform the extent to which resources should be focused on business attraction or building up resilience of existing enterprises.

To understand things better, this report contains data on the following questions:

- How many businesses are created each year? How many fail?
- Do new or existing businesses create more jobs?
- Are jobs from existing businesses lost because the business fails or scales back?
- What is the average size of a startup compared to the average size of an existing business?
- Do job creation trends among new and existing businesses differ between industries?
- Are returns on assets better/worse in industries where business numbers are growing/declining?
- How do the wages of jobs that are created each year compare to existing wages in the local economy? How do these trends affect wellbeing of local residents?
- How does Rotorua compare to other parts of New Zealand?

The data used in this report is predominantly drawn from the Business Register, so includes employment within businesses and other organisations, but does not cover self-employment. Data stretching from 2005 to 2019 is considered in the report.

Key findings

- Business numbers have recovered from their 2013 trough of 6,936 and are now back to levels that persisted immediately prior to when the Global Financial Crisis hit in 2008.
- Business births have risen strongly since 2013 as economic conditions improved.
- Economic development's twin roles of business attraction and building up the resilience of existing enterprises are both important for job creation. New businesses generate a steady stream of jobs, but these gains can be quickly eroded when existing businesses backpedal.
- Since 2005 there have been four years where the total number of people employed within businesses fell. But there were an additional six years where existing businesses shed workers.
- On average over the 15 years to 2019, new businesses accounted for a 2.1%pa contribution to total jobs growth, while existing businesses detracted 1.3%pa from the result.
- The average Rotorua startup business has 4.8 employees, close to the national average of 4.7 employees.
- Over the five years to 2019, the top five types of businesses for job creation in Rotorua District were: accommodation and food services, education and training, retail trade, public administration and safety, and health care and social assistance.
- Accommodation and food services is a particularly cut-throat industry. Job creation was concentrated in new businesses, with existing businesses shedding workers. A similar story can be seen for retail trade.
- The other key growth industries showed stronger performances by existing businesses.
- Industries where employment was expanding offered average returns on equity of 18.1%, while industries where job numbers were contracting offered average returns of 14.6%.
- Over the five years to June 2018, new jobs' pay increased by an average of 4.2%pa, while pay for continuing jobs with existing employers increased by an average of 2.6%pa.

Lessons

Creative destruction is a natural way of restructuring within an economy, where new, more innovative and productive firms replace less innovative ones. This more efficient reallocation of resources between growing and shrinking firms is critical to support a higher level and quality of employment in a local area.

At face value these observations could lead someone to conclude that economic development resources are best directed at startups. But such a conclusion would be short-sighted. Although startups are indeed an important part of the jobs growth engine and must be supported, excessive swings in the fortunes of existing businesses is the more detrimental factor during bad times.

Some natural pruning is warranted to weed out business models that are out-of-sync with longer-term trends in supply and demand, but there are some businesses that fail because they have insufficient resilience to weather short-term storms. The necessity to build up resilience provides relevancy to the work that economic development practitioners do with existing enterprises to help them become more cost efficient, productive, competitive, and sustainably financed.

Economic gardening is a model that seeks to create jobs by supporting existing businesses and industries in a community. The core of economic gardening is encouraging the development of essential infrastructure and providing entrepreneurs with appropriate information and support programmes. Such initiatives aim to help existing businesses become more innovative, resilient, sustainable and inclusive.

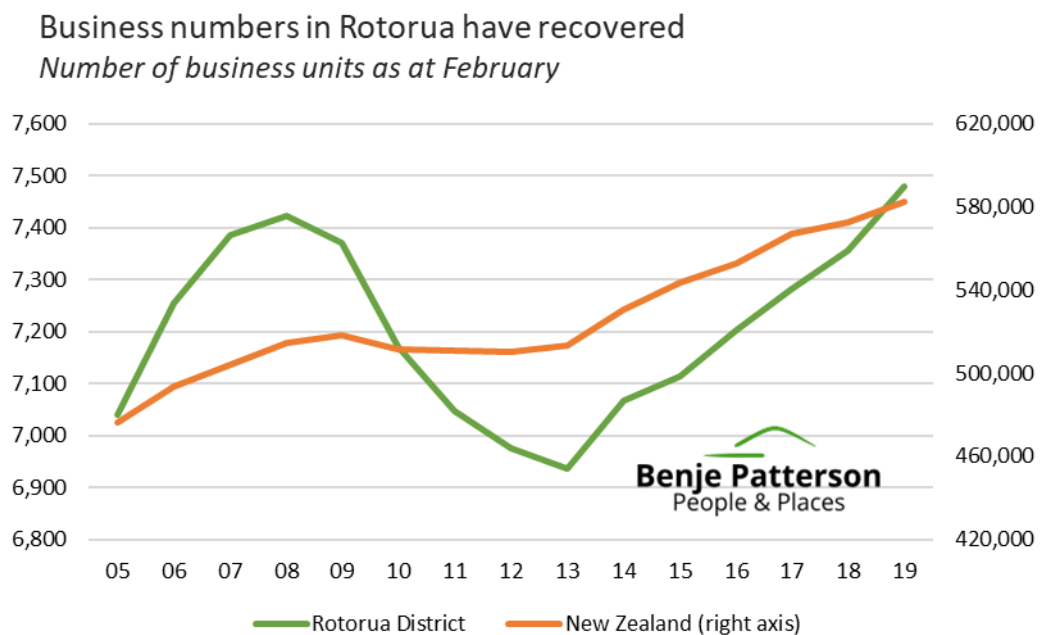
Business creation and destruction

The total number of businesses across Rotorua District in 2019 was 7,479. Business numbers have recovered from their 2013 trough of 6,936 and are now back to levels that persisted immediately prior to when the Global Financial Crisis hit in 2008.

Business numbers in Rotorua experience bigger swings across the business cycle than the rest of New Zealand. Rotorua's economy is less diversified and relies more heavily than the rest of the country on the cyclical tourism and forestry sectors.

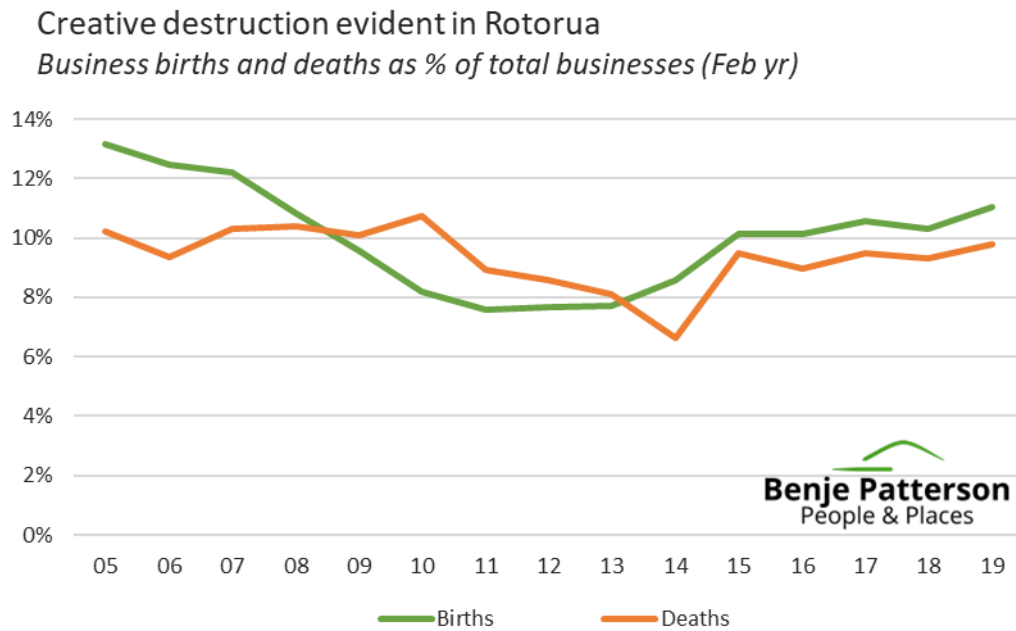
These trends are summarised below in Graph 1.

Graph 1



Growth in the stock of businesses is the net result of the appearance (birth) and disappearance (death) of businesses over a given year. This process is often referred to as “creative destruction” and closer analysis shows it is alive and well in Rotorua.

Graph 2



The business birth rate in Rotorua declined until 2010, and then was relatively flat for the next couple of years as a result of subdued economic conditions nationally. Business births have risen strongly since 2013 as economic conditions improved.

Business deaths peaked in 2010 following the Global Financial Crisis and ensuing decline in tourism. However, deaths began to reduce as economic conditions stabilised.

Business deaths have begun to rise again over recent years, although are below business birth rates, ensuring that total business numbers continue to grow.

Are new or existing businesses the biggest job creators?

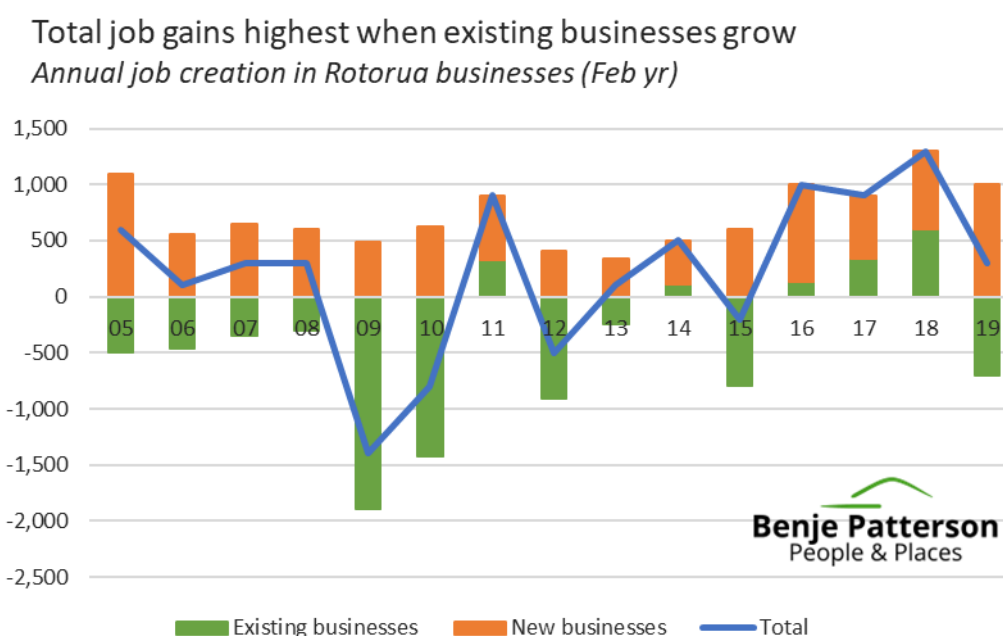
The previous section showed how business numbers have evolved over recent years. It also highlighted the process of creative destruction, where a flow of new businesses replaces those that cease operations.

This section looks at the upshot for what is happening in terms of the number of jobs provided by businesses. After all, it is nice to see how business numbers are changing, but the real goal for improving wellbeing is to translate this entrepreneurial spirit into jobs on the ground!

In 2019, the 7,479 businesses in Rotorua accounted for 32,900 jobs¹. By comparison, at the previous trough in business numbers in 2013, the 6,936 businesses in Rotorua accounted for 29,100 jobs.

The following graph shows the total number of jobs created by businesses each year, split into those from new and those from existing businesses.

Graph 3



Immediately obvious is that new businesses consistently create jobs. Existing businesses, on the other hand, are a frequent detractor from overall job creation.

Since 2005 there have been four years where the total number of people employed within businesses fell. However, there were an additional six years where existing businesses shed workers. In these additional six years, total jobs within businesses would have gone backwards had it not been for new businesses adding employees to the workforce.

¹ Estimates in this report capture all those employed in businesses that are maintained on Statistics New Zealand's business register. Those that are self-employed and derive income as a contractor or from informal enterprises not on the business register are not captured within business employment and are excluded from the analysis. The 2013 Census showed that 10.4% of people in paid work in Rotorua were self-employed, compared to 12.3% nationally. Estimates from Infometrics showed that total employment in the district, including jobs in both businesses and the self-employed, was 35,027 jobs in 2018.

On average over the 15 years to 2019, new businesses accounted for a 2.1%pa contribution to total jobs growth, while existing businesses detracted 1.3%pa from the result.

These growth contributions are summarised below in Table 1.

Table 1

Contributions to jobs growth in Rotorua businesses

Average annual % point contributions to total jobs growth in businesses

Year	Existing businesses	New businesses	Total growth
2005	-1.7%	3.7%	2.0%
2006	-1.5%	1.9%	0.3%
2007	-1.2%	2.2%	1.0%
2008	-1.0%	2.0%	1.0%
2009	-6.1%	1.6%	-4.5%
2010	-4.8%	2.1%	-2.7%
2011	1.2%	2.0%	3.1%
2012	-3.1%	1.4%	-1.7%
2013	-0.8%	1.2%	0.3%
2014	0.4%	1.3%	1.7%
2015	-2.7%	2.0%	-0.7%
2016	0.4%	3.0%	3.4%
2017	1.1%	1.8%	3.0%
2018	1.9%	2.2%	4.2%
2019	-2.1%	3.1%	0.9%
Average	-1.3%	2.1%	0.8%

Comparisons can also be made between the sources of jobs growth among Rotorua's businesses to the national average.

Table 2 summarises data over the past 15 years. The data shows that Rotorua's existing businesses have struggled more than the national average to create jobs. New businesses in Rotorua, on the other hand, have created jobs at a similar rate to the national average.

New businesses' higher contribution to jobs growth in Rotorua relates to the larger share of accommodation and food sector businesses in Rotorua. The rate of creative destruction is much higher in these industries than the average for businesses across the country.

Table 2

Contributions to jobs growth in businesses

Average annual % point contributions over 15 years to 2019

Business type	Rotorua District	New Zealand
Existing	-1.3%	-0.5%
New	2.1%	2.1%
Total growth	0.8%	1.6%

Do businesses shed workers because they fail or scale back?

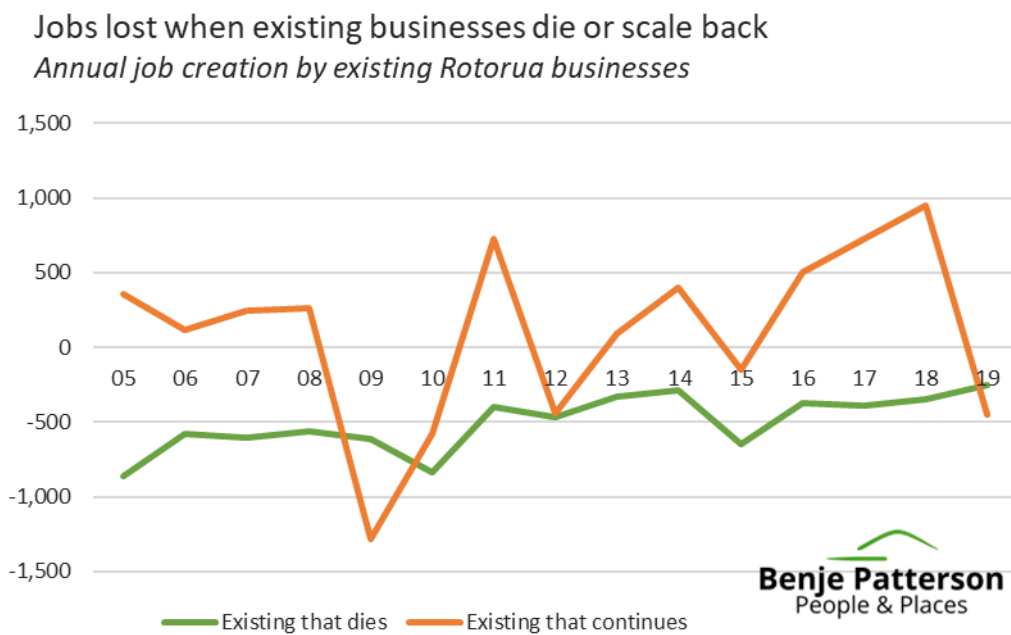
We have established that existing businesses frequently shed workers. But does shedding occur because businesses actually fail or are the job losses instead centred on businesses that are simply scaling back in response to something more transient in the business environment?

Graph 4 below breaks job losses from existing businesses into these twin trends.

The graph highlights that failing businesses' contributions to job losses are relatively consistent through time. This finding is best explained by the creative destruction process outlined earlier, which reflects natural pruning to weed out business models that are out-of-sync with longer-term trends in supply and demand.

For businesses that continue operations, there is a high degree of volatility between job creation and destruction across the business cycle. These businesses are dynamically adjusting their business model in response to external conditions so that they flourish during good times and can survive when macroeconomic conditions become more challenging.

Graph 4



The demographics of businesses

This section considers the demographics of businesses. Table 3 highlights that most businesses in Rotorua have no employees (non-employing). Nevertheless, the share of non-employing businesses is smaller than the national average.

Table 3

The demographics of Rotorua businesses

Number of business units in each category, as at February 2019

Type	Rotorua District		New Zealand	
	Proportion	Number	Proportion	Number
Non-employing	60.0%	4,485	67.5%	393,093
Employing	40.0%	2,994	32.5%	189,384
Total	100.0%	7,479	100.0%	582,477

Considering employing businesses only, shows that the average number of employees per business unit in Rotorua is 11.0 employees, smaller than the national average of 12.1 employees.

Table 4

Average number of employees

Per employing business unit, as at February 2019

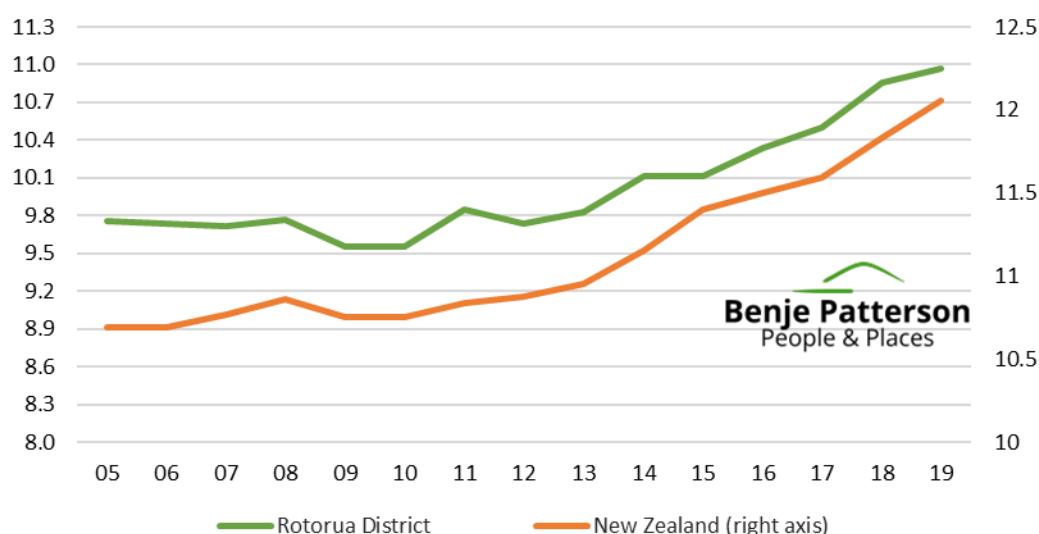
Rotorua District	New Zealand
11.0	12.1

The average number of employees per business in Rotorua has been growing through time. Over the 15 years to 2019, the average number of employees per business unit in Rotorua rose from 9.8 to 11.0, an increase of 12.4%. The average nationally rose 12.8% from 10.7 to 12.1 employees.

Graph 5

The size of employing business units has been increasing

Average number of employees per employing business unit



The demographics of businesses that are born and die

Businesses that are born and die in any given year are smaller than existing businesses.

Table 5 shows that the average Rotorua startup business has 4.8 employees, close to the national average of 4.7 employees.

It is no surprise that startup businesses have a relatively small number of employees, as entrepreneurs are unlikely to invest in staff initially as they build up their client base and bed in processes.

But Rotorua businesses scale up more slowly thereafter, with existing businesses in Rotorua on average having 6.2 additional employees than new entrants. By comparison, existing business units nationally on average have 7.4 additional employees than new entrants.

Table 5

Average number of employees (business births)

Per employing business birth, 10 years to 2019

Rotorua District	New Zealand
4.8	4.7

Table 6 shows that the average business in Rotorua that dies has 5.3 employees, while nationally the average business unit that dies has 6.4 employees.

It is no surprise that businesses that die have fewer employees on average than existing businesses. As identified earlier, the data shows that entrepreneurs first reaction to more challenging economic conditions is typically to shed workers and streamline their operations. As a result, the end decision to cease operations is generally part of a more gradual process. This behaviour leads to smoother outcomes for a local economy. From an employees' perspective, having more time to identify other employment opportunities to move into can lead to a more financially stable transition into new employment.

Table 6

Average number of employees (business deaths)

Per employing business death, 10 years to 2019

Rotorua District	New Zealand
5.3	6.4

Do trends in job creation among new and existing businesses vary between industries?

Diving deeper into the data shows that there are significant differences between industries in terms of job creation across both new and existing business units.

Over the five years to 2019, the top five industries for job creation in Rotorua District were:

1. accommodation and food services
2. education and training
3. retail trade
4. public administration and safety
5. health care and social assistance

Accommodation and food services is a particularly cut-throat industry. Job creation was concentrated in new businesses, with existing businesses shedding workers. A similar story can be seen for retail trade.

The other key growth industries showed stronger performances by existing businesses. Gains for education and training, and public administration and safety were particularly concentrated on existing businesses – not surprising given that changes in these sectors are generally slower moving and determined in a policy setting.

Arts and recreation services, which is driven by both community and tourism-related recreational pursuits, was another key contributor to jobs growth. Growth was evenly spread across new and existing businesses.

Table 7

Job creation in Rotorua District by startup and existing businesses

Jobs created within businesses over the five years to February 2019

	Startups	Existing	Total
Accommodation and Food Services	660	-160	500
Education and Training	185	265	450
Retail Trade	655	-305	350
Public Administration and Safety	74	276	350
Health Care and Social Assistance	196	154	350
Arts and Recreation Services	173	177	350
Transport, Postal and Warehousing	143	157	300
Professional, Scientific and Technical Services	225	25	250
Construction	235	-35	200
Other Services	156	-6	150
Rental, Hiring and Real Estate Services	99	31	130
Agriculture, Forestry and Fishing	380	-330	50
Manufacturing	202	-152	50
Mining	0	0	0
Wholesale Trade	96	-96	0
Electricity, Gas, Water and Waste Services	33	-73	-40
Financial and Insurance Services	24	-64	-40
Information Media and Telecommunications	12	-82	-70
Administrative and Support Services	169	-269	-100
Not included elsewhere	13	57	70
Total	3,730	-430	3,300

Further down the list, it was also evident that there were many industries where major job losses from existing businesses were offset by significant volumes of job creation in startup businesses. This observation was particularly apparent in agriculture, manufacturing, wholesale trade, and administrative and support services.

Are returns higher for industries that are expanding?

When investing in a business, entrepreneurs are ultimately concerned about the return they stand to make on their investment in the business.

It stands to reason that higher yielding industries with a healthy demand outlook and relatively few looming risks, will be those that are in expansion mode. On the flipside, industries that offer a lower return and weaker demand prognosis, are likely to be those where entrepreneurs are pulling back.

The following table considers the average returns on equity for industries in Rotorua where business employment has been expanding over the past five years and compares those to the average returns for industries where job numbers in businesses have been contracting.

Table 8

Returns on equity higher for expanding industries in Rotorua District

Average returns on equity calculated using 2018 Annual Enterprise Survey

	Return on equity
Industries with expanding job numbers	18.1%
Industries with contracting job numbers	14.6%
District average	18.8%

The calculations show that expanding industries offered average returns on equity of 18.1%, while industries where job numbers have been contracting offered average returns of 14.6%.

By comparison, the average return on equity across the district was 18.8%².

At first brush, it may seem strange that the average return of expanding industries was marginally below the district average return. However, little should be read into this result as one of the key contributors to growth in employment was education and training. The commercial return on equity in this industry is relatively low (11%), but the social return from the longer-term investment in upskilling the workforce will be higher and will ultimately help support productivity across other industries.

² These returns have been calculated using industry average returns on equity from the 2018 Annual Enterprise Survey and then overlaying them against the industry structure of business employment in Rotorua.

Comparing wages of new and existing jobs in businesses

Economic development is ultimately about outcomes that matter for people. Being entrepreneurial and creating jobs matters, but we also care about the quality of employment. When considering social wellbeing, it is important to understand how wages of new jobs compare to those in existing jobs.

PAYE taxation data shows average annual earnings for new jobs within businesses in Rotorua in the June 2018 year were \$43,770pa, while average earnings for continuing employment in existing jobs within businesses were \$56,330pa.

Table 9

Mean annual earnings in Rotorua businesses

Source: Stats NZ (LEED), Jun-18 year

New jobs	Continuing jobs
\$43,770	\$56,330

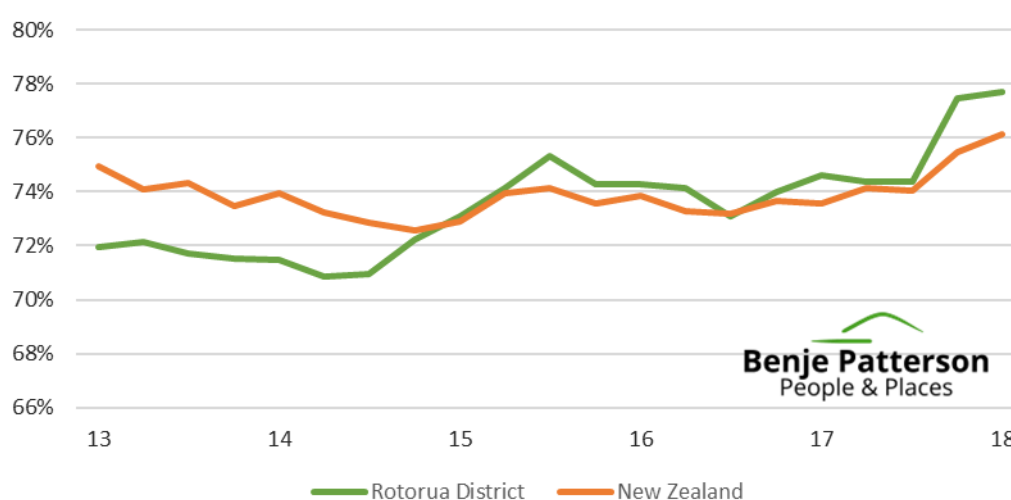
The lower earnings for new jobs is no surprise. New employees often start out on a lower wage than colleagues, but wages improve as they develop more institutional knowledge and begin to add more value within the enterprise. Similarly, owners of new businesses often cannot afford to pay themselves or give as many hours to staff initially until they find their feet. Success for economic development practitioners is providing startups with the appropriate support and assistance to remain in business. The data shows that as a business develops, the earning potential for staff in continuing jobs is higher.

Looking more generally at trends in wages, we can see that the gap has closed between what is offered to employees in new roles compared to continuing jobs in Rotorua. Over the five years to June 2018, new jobs' pay increased by an average of 4.2%pa, while pay for continuing jobs with existing employers increased by an average of 2.6%pa. Because of this trend, the ratio of wages for new jobs compared to continuing jobs has improved from 0.72 to 0.78 over the same period.

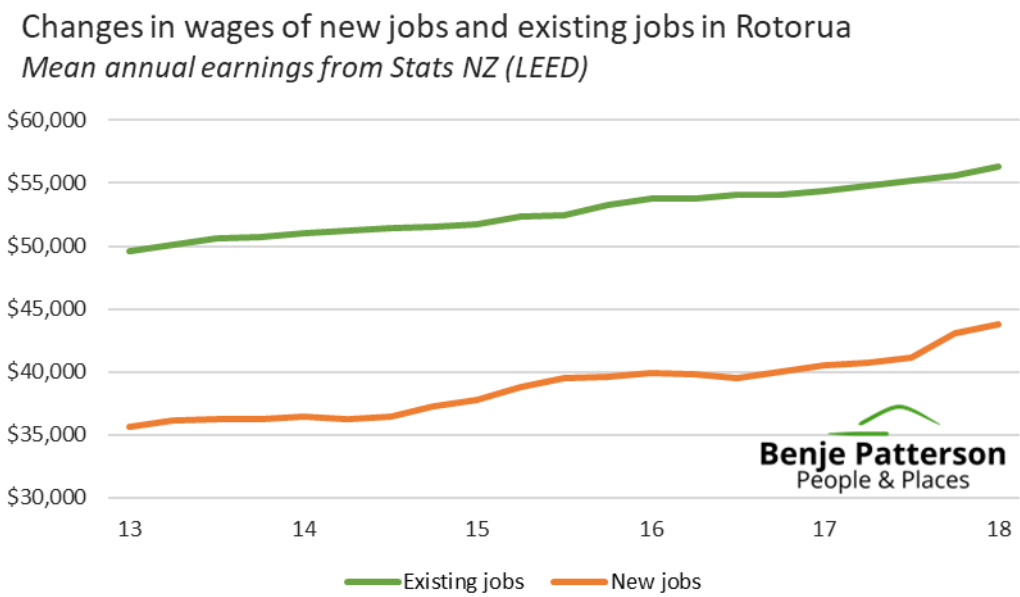
Graph 6

Ratio of wages in new jobs to existing jobs

Based on mean annual earnings from Stats NZ (LEED)



Graph 7



How does Rotorua compare to others?

This section makes comparisons between Rotorua, Bay of Plenty Region, and New Zealand.

Table 10 shows that there are lower levels of creative destruction among Rotorua's businesses than among peers' business environments. Rotorua shows both lower levels of business creation and business deaths than Bay of Plenty Region and New Zealand.

Table 10

Creative destruction of businesses

Business births and deaths as % of total business stock, average 5 years to 2019

	Rotorua District	Bay of Plenty Region	New Zealand
Business births	10.4%	12.1%	11.9%
Business deaths	9.4%	9.9%	10.2%

Looking at the role of businesses in jobs creation shows that Rotorua's existing businesses have struggled more than existing businesses across Bay of Plenty Region and New Zealand to create jobs.

New businesses in Rotorua, on the other hand, have been a more pivotal creator of jobs, performing on par with the New Zealand average, and just behind Bay of Plenty Region as a whole.

Table 11

Contributions to business jobs growth

% point contributions to total jobs growth in businesses, average 5 years to 2019

	Rotorua District	Bay of Plenty Region	New Zealand
Existing	-0.3%	1.0%	0.3%
New	2.4%	3.0%	2.4%
Total growth	2.2%	4.0%	2.7%

New businesses in Rotorua on average employ close to the same number of people as new businesses in Bay of Plenty Region and New Zealand.

The average size of an existing business in Rotorua (11.0 jobs) is similar to Bay of Plenty Region (10.8 jobs), but smaller than New Zealand (12.1 jobs).

Table 12

Average number of employees

Per employing business, as at Feb 2019 for existing, 10 year average for births/deaths

	Rotorua District	Bay of Plenty Region	New Zealand
Existing	11.0	10.8	12.1
Births	4.8	5.0	4.7
Death	5.3	5.1	6.4

Jobs in businesses in Rotorua offer similar remuneration on average to jobs across Bay of Plenty Region, both for newly created jobs and for continuing jobs. Wages for New Zealand as a whole are pushed higher by higher paying jobs available in Auckland and Wellington.

Table 13

Mean annual earnings in businesses*Source: Stats NZ (LEED), Jun-18 year*

	Rotorua District	Bay of Plenty Region	New Zealand
New jobs	\$43,770	\$44,100	\$48,190
Continuing jobs	\$56,330	\$57,040	\$63,280
Ratio of new to continuing	0.78	0.77	0.76

Wages for newly created jobs in Rotorua have risen at a faster rate than wages for new jobs in Bay of Plenty Region and New Zealand.

Wages for continued jobs in Rotorua have risen at a slightly slower rate than wage growth for continued jobs in Bay of Plenty Region and New Zealand.

Table 14

Growth in mean annual earnings in businesses*Source: Stats NZ (LEED), average annual growth over 5 years to June 2018*

	Rotorua District	Bay of Plenty Region	New Zealand
New jobs	4.2%	3.8%	3.1%
Continuing jobs	2.6%	2.9%	2.8%