INSIGHT | ECONOMICS

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Analysis of the Current and Past Use of Council Rating Tools in New Zealand

Prepared for:
New Zealand Productivity Commission

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1. Summary of Key Findings

This report presents the findings of a detailed review of Council rating practices for the 2018/19 financial year, which was undertaken to assist the Productivity Commission's Inquiry into Local Government Funding and Financing. This section summarises the key findings of the review.

Operating Funding & Rating Mixes

- Total Council operating funding is forecast to be $10.8 billion in 2018/19, 58% of which will be funded via rates. While this share has remained relatively constant over time, it varies markedly across Councils.

- General rates accounted for 50% of total rates in 2019, targeted rates 39%, and uniform annual general charges (UAGCs) 11%.

- However, Auckland Council skews this, because it accounts for 30% of total rates and relies on general rates far more than the national average.

- For example, excluding Auckland, the general rates share of total rates falls from 50% to 40%, while the targeted rates share increases from 39% to 50%. UAGCs are not affected, however.

Use of General Rates

- 94% of Councils set a general rate in 2019, with territorial authorities (TAs) more likely to set them than regional Councils.

- While the use of general rates has not changed, the overall reliance on them has. For example, the share of Councils raising more than half of total rates from general rates fell from 42% in 2003 to 24% in 2019.

- Not only has the overall reliance on general rates changed, but so too have the rating bases used to set them.

- For example, in 2007, 51% of Councils set general rates on capital value, 47% on land value, and 2% on annual value. In 2019, however, 71% of Councils set them on capital value, and 29% on land value. Annual value is no longer used to set general rates in New Zealand.

- Average general rate funding across Councils that set them was $43 million, but three Councils raised more than $100 million. The highest was $1.4 billion.

- 68% of Councils that set general rates applied differentials. While most set only a handful of differentials, if any, one Council set 43.

- 44% of Councils with a general rate had business differentials. The median value was 2.5, which means that – on average – businesses pay 150% more per dollar of rateable value than residences. Councils that rate on land value tend to set higher business differentials than those using capital value.

- 44% of Councils with a general rate also set rural differentials, with a median value of 0.7. This means that rural properties, on average, pay 30% less per dollar of rateable value than residential properties.

- Finally, 14% of Councils with a general rate set differentials on specific types of residential property, with Councils that rated on land value being far more likely to set them than those using capital value. The median value was 1.75, and the differentials most often applied to higher-density or multi-unit dwellings.

Use of Targeted Rates

- In 2019, every Council set at least one targeted rate, with six Councils setting more than 100. The highest was 358, while the average was 35 targeted rates per Council.

- Regional Councils set more targeted rates than TAs (average of 73 vs 29). This likely reflects the suitability of targeted rates to activities funded by regional Councils, such as drainage and flood protection.

- Just like general rates, there has been relatively little change in the use of targeted rates.

- In 2019, targeted rates funding averaged $31 million per Council, with two Councils raising less than $1 million, and three raising more than $100 million. The highest was $214 million.

- 46% of targeted rates are set on rating units, 24% on capital value, 12% on land value, and 10% on land area. Together, these rating bases accounted for 92% of targeted rates set in 2019.

- Targeted rates were most commonly set for '3-waters' activities, namely water, wastewater, and stormwater (including drainage/flood protection). Together, these various activities accounted for 43% of targeted rates set in 2019.

Use of Uniform Annual General Charges (UAGCs)

- The use of UAGCs is increasing over time, with 67% of Councils setting them in 2003, compared to 82% in 2019.

- As a result, the proportion of Councils raising more than 20% of total rates from UAGCs increased from 15% in 2003 to 28% in 2019.

- The price of UAGCs varies significantly, from $20 to almost $880 per SUIP excluding GST. The average value was $380, while the median was $410.

- The amount of funds raised by UAGCs varies significantly, due to differences in both the size of the charge, plus the number of rateable units in each area. Overall, nearly $676 million was raised via UAGCs in 2019, with an average of $10.4 million per council that set a charge.

- While, UAGCs accounted for 11% of total rates funding in 2019, the average across the 65 Councils that set one was 16%, while the median was 17%.

2. Introduction

2.1. Context

The New Zealand Productivity Commission (the Commission) has been asked to conduct an inquiry into Local Government funding and financing. The review comes amid growing concerns about the sustainability of Local Government funding, and is set more than a decade since the last inquiry (the Local Government Rates Inquiry) in 2007.

To assist with its inquiry, the Commission has sought an assessment of the current use of rating tools by Councils, along with a comparison of previous analyses undertaken for the earlier 2007 inquiry. This report summarises the key findings of our assessment for the Commission.

2.2. Structure of Document

The remainder of this document is structured as follows:

- **Section 3** briefly defines the Council rating tools analysed in this report;
- **Section 4** describes the broader project methodology underlying this report;
- **Section 5** summarises total operating funding and the shares funded by rates;
- **Section 6** analyses the use of general rates;
- **Section 7** examines the use of targeted rates;
- **Section 8** summarises the use of uniform annual general charges (UAGCs); and
- **Section 9** provides a brief summary and conclusions.

3. About Council Rating Tools

This section summarises relevant sections of the Local Government (Rating) Act 2002 (LGRA) to define the rating tools analysed in this report, namely general rates, uniform annual general charges, and targeted rates.

3.1. General Rates

General rates apply to all rateable land in a Council area and can be set on either:

- **Land Value** – which is the estimated market value of land only;
- **Capital Value** – which is the estimated market value of both land and buildings; or
- **Annual Value** – whichever is the greater of (i) 80% of the estimated gross annual rental, or (ii) 5% of the property's capital value.

General rates may be either a uniform or variable rate per dollar of rateable value. If variable rates are applied, which are known as rating differentials, they may be set based on either:

- Land use;
- Land area;
- Location;
- The provision of, or ability to connect to, a Council-provided service;
- Property values, as measured by either land value, capital value, or annual value; or
- Activities that are currently (or proposed to be) permitted, controlled, or discretionary under the Resource Management Act 1991 (RMA);

3.2. Uniform Annual General Charges (UAGCs)

Councils may also set a uniform annual general charge (UAGC). As their name implies, UAGCs are uniform (flat) charges, which usually apply to every separately used or inhabited part of a rating unit (SUIP). However, the LGRA restricts the quantum of rates that can be derived from UAGCs and other 'flat charges.' Specifically, the revenue sought from UAGCs and other district-wide uniform charges must not exceed 30% of total rates revenues (excluding rates set solely for the purposes of water or wastewater activities).

3.3. Targeted Rates

Finally, Council's may set targeted rates for one or more activities or groups of activities, which may apply to all properties or just a subset. These can be either uniform or variable charges, or a combination of the two. Like general rates, there are numerous factors that can be used to determine the liability for targeted rates, namely each rating unit's:

- Property values, as measured by either land value, capital value, annual value, or the value of improvements (which equal capital value minus land value);
- Total land area, or the area protected by a Council-provided amenity or service;
- Amount of impervious (paved or sealed) surface area;
- Number of separately used or inhabited parts of the rating unit;
- Number or nature of connections to any Council reticulation system;
- Total floor space of buildings within the rating until; or
- Number of water closets and urinals within the rating unit.

Also, like general rates, targeted rates may be struck at different rates per dollar. The factors that may be used to group properties for the purpose of setting targeted rate differentials are the same as those used for general rates, as listed above.

Finally, the LGRA permits local authorities to set specific targeted rates for potable water based on water use. These may be either a fixed charge per unit of water supplied, or a sliding scale of charges.

4. Methodology

This section summarises key aspects of our project methodology.

4.1. Data Extraction and Collation

The information summarised in this report represent the culmination of an exhaustive data identification, extraction, and collation process, which spanned several weeks. It comprised the following steps:

1. **Clarification of project objectives and requirements** – the first step was to clarify the exact uses to which the data would be put, particularly how it would be used to inform the Productivity Commission's Inquiry. This ensured that the data was collated and presented in the best way possible, including making it comparable with data collected for earlier projects, such as the Local Government Rates Inquiry in 2007.

2. **Identification of required information** – the Commission's overall requirements were translated into a set of related data specifications, which identified the exact information required from each Council.

3. **Location of information within LTPs** – having identified the relevant information, the next step was to determine its typical location within the Long Term Plan (LTP). While the required data was usually displayed in either the funding impact statement, the rating policy, or the revenue and financing policy, the exact content and format of these document elements varied widely across Councils. Accordingly, significant effort was exerted to locate the relevant data for each Council prior to extraction.

4. **Data extraction** – next, the necessary data was extracted from each Council's LTP. For the most part, this process utilised a specialised extraction tool called Tabula, which automatically detects and extracts tabular data within PDF files. However, many LTPs were not amenable to this approach, so manual extraction was required.

5. **Data collation** – once extracted, the data was collated in an Excel spreadsheet that comprised three tabs. More information about this data structure is provided below.

6. **Data cleaning & integrity checks** – Finally, the collated data was subjected to extensive cleaning and integrity checks to ensure that it was fit for purpose and free from errors. This involved 'massaging' the data into more consistent formats, such as categorising Council activities into various activity groups, plus extensive checking and verification of randomly-selected Council data against the LTP. Notwithstanding the rigour of this process, however, we accept that there may still be some small but insignificant errors in the data given the sheer volume of information collated over a relatively short period of time. That said, we are highly confident in the accuracy and veracity of the analysis presented in this report.

4.2. Data Structure and Linkages

After experimenting with different formats, we settled on a three-tier structure to collate and analyse the data referred to in this report. Each tier is stored in a separate excel tab, and linked together to create a comprehensive, integrated dataset for analysis. In summary:

- The **first tier** stored the name of each Council along with attributes, such as council type, and total operating funding in 2018/19. It contains 78 records – one per Council.

- The **second tier** recorded the various charges set by each Council, including information on the activities funded, rating bases used, groups to whom the charge applied, and the total amount raised in 2018/19 excluding GST. It contains 2,983 records.

- The **third tier** recorded more-detailed (and complementary) information about each charge set, including the charge type, activities funded, rating base used, rate applied per unit of rateable value, and the specific/detailed groups or types of properties to whom charges applied. These data were used mainly to analyse general rate differentials, but also informed other analyses. It contains 6,185 records.

4.3. Grouping of Activities

The data collated for this project spanned more than 160 uniquely-named Council activities, which is far too many for reporting and analysis purposes. To improve report readability and usability, we therefore grouped each activity into the 10 groups shown in Table 1. It shows that the majority of activities were classified as either community and recreation, or 'other.' The latter covers a wide range of miscellaneous activities, including noise control, dog control, regulation, heritage, district planning, infrastructure, weeding, and so on.

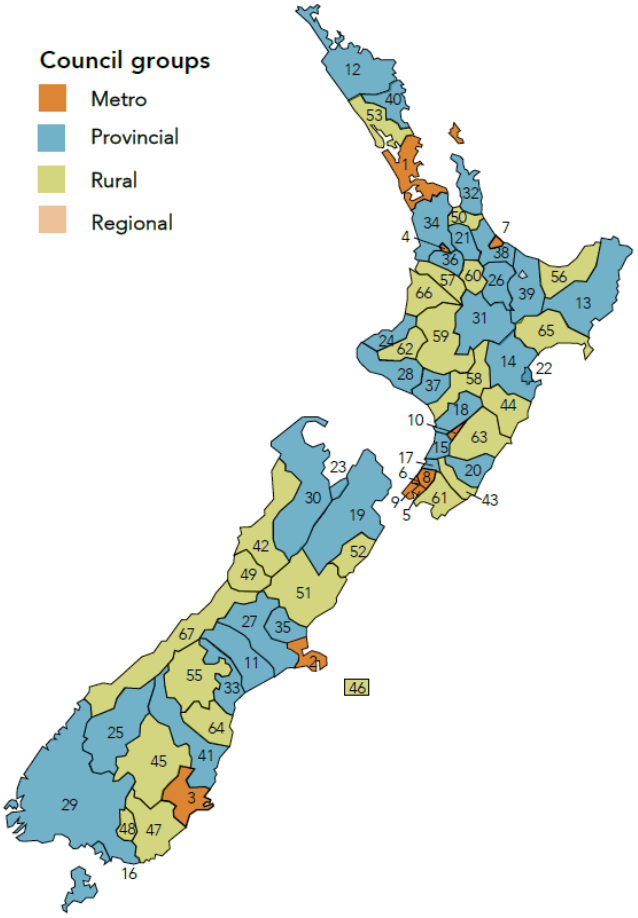
Table 1: Activity Groups and Number of Activities Covered by Each

Activity Groups	Number of Activities Covered
Biosecurity, Emergencies, Hazards	9
Community & Recreation	42
Drainage & Flood Protection	10
Economic Development	12
Environment & Sustainability	14
Other Activities	49
Roading & Public Transport	9
Solid Waste	5
Stormwater & Wastewater	9
Water	4
Total	**163**

4.4. Council Sector Groups

This report groups each Council into four groups (metropolitan, provincial, regional, and rural) based on LGNZ membership information. These groups are shown in the tables and maps below, which have been reproduced from the Productivity Commission's Local Government Funding and Financing Issues Paper (dated November 2018).

Figure 1: Council Sector Groups

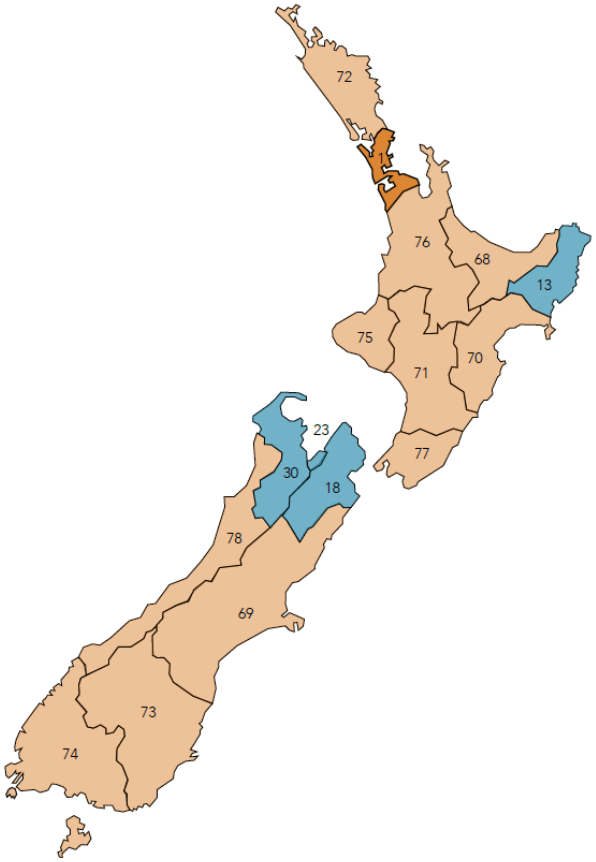


No.	Council name	2017 population
	Metro	
1	Auckland	1 657 200
2	Christchurch City	381 500
3	Dunedin City	136 200
4	Hamilton City	165 400
5	Hutt City	104 700
6	Porirua City	56 100
7	Tauranga City	131 500
8	Upper Hutt City	43 200
9	Wellington City	212 700
10	Palmerston North City	82 100

	Provincial	
11	Ashburton District	34 100
12	Far North District	63 200
13	Gisborne District	48 500
14	Hastings District	79 900
15	Horowhenua District	32 500
16	Invercargill City	54 800
17	Kapiti Coast District	52 700
18	Manawatu District	30 300
19	Marlborough District	46 200
20	Masterton District	25 200
21	Matamata-Piako District	34 700
22	Napier City	62 000
23	Nelson City	51 400
24	New Plymouth District	80 700
25	Queenstown-Lakes District	37 100
26	Rotorua District	71 700
27	Selwyn District	59 300
28	South Taranaki District	28 000
29	Southland District	31 100
30	Tasman District	55 800
31	Taupo District	36 800
32	Thames-Coromandel District	29 000
33	Timaru District	47 100
34	Waikato District	73 600
35	Waimakariri District	59 300
36	Waipa District	53 000
37	Wanganui District	44 500
38	Western Bay of Plenty District	49 000
39	Whakatane District	35 600
40	Whangarei District	89 700
41	Waitaki District	22 600

No.	Council name	2017 population
	Rural	
42	Buller District	10 150
43	Carterton District	9 050
44	Central Hawke's Bay District	13 150
45	Central Otago District	20 300
46	Chatham Islands Territory	640
47	Clutha District	17 550
48	Gore District	12 450
49	Grey District	13 500
50	Hauraki District	19 850
51	Hurunui District	12 800
52	Kaikoura District	3 720
53	Kaipara District	22 500
53	Kawerau District	6 940
55	Mackenzie District	4 600
56	Opotiki District	9 010
57	Otorohanga District	10 150
58	Rangitikei District	15 000
59	Ruapehu District	12 700
60	South Waikato District	24 200
61	South Wairarapa District	10 250
62	Stratford District	9 420
63	Tararua District	17 850
64	Waimate District	7 900
65	Wairoa District	8 220
66	Waitomo District	9 730
67	Westland District	8 810

	Regional	
68	Bay of Plenty Region	299 900
69	Canterbury Region	612 000
70	Hawke's Bay Region	164 300
71	Manawatu-Wanganui Region	240 300
72	Northland Region	175 400
73	Otago Region	224 200
74	Southland Region	98 400
75	Taranaki Region	118 000
76	Waikato Region	460 100
77	Wellington Region	513 900
78	West Coast Region	32 500



4.5. Grouping of Ratepayer Types

Each Council's LTP describes dozens of different property types or groups to whom each specific charge applies which, again, is too detailed for reporting and analysis purposes. Accordingly, we categorised properties and ratepayers into the following key groups:

- All ratepayers (for UAGCs, general rates, and some targeted rates);
- Business;
- Urban;
- Rural;
- Residential; and
- Other (which covers various miscellaneous property types, such as dams and utilities).

We note that these groups are not mutually-exclusive, however, with various overlaps possible. For example, a business ratepayer may also be classified as urban, while a residential property may also be classified as rural, and so on.

4.6. Calculation of General Rate Differentials

This report includes a detailed analysis of general rate differentials, which arise when Councils set different general rates per dollar of rateable value for different groups of properties. While there is no universally-accepted method for translating variable general rate levies into corresponding differentials, these are often described relative to the most common rate for residential properties. We adopt that approach here, and express the differentials for each Council as a multiple of the most commonly-applied residential rate.

In most cases, it was quite straightforward (with a little local knowledge) to identify the most commonly applied residential rate to use as the denominator in differential calculations. However, in other cases, there was some uncertainty. Consequently, where an appropriate base was not immediately obvious, we used the residential rate that appeared to apply to the largest (typically-urbanised) area within each city or district. For example, the following table shows the general rate differentials that we calculated for the Westland district. In this case, we used the 'residential' category as the numeraire, rather than rural residential, which is consistent with expressing differentials relative to the most common 'urban residential' rate.

Table 2: General Rate Differentials Calculated for Westland District

Property Types	Rates per $100k	Differentials
Rural	$140	1.00
Rural Residential	$110	0.79
Residential	$140	1.00
Commercial	$280	2.00

4.7. Trends Over Time

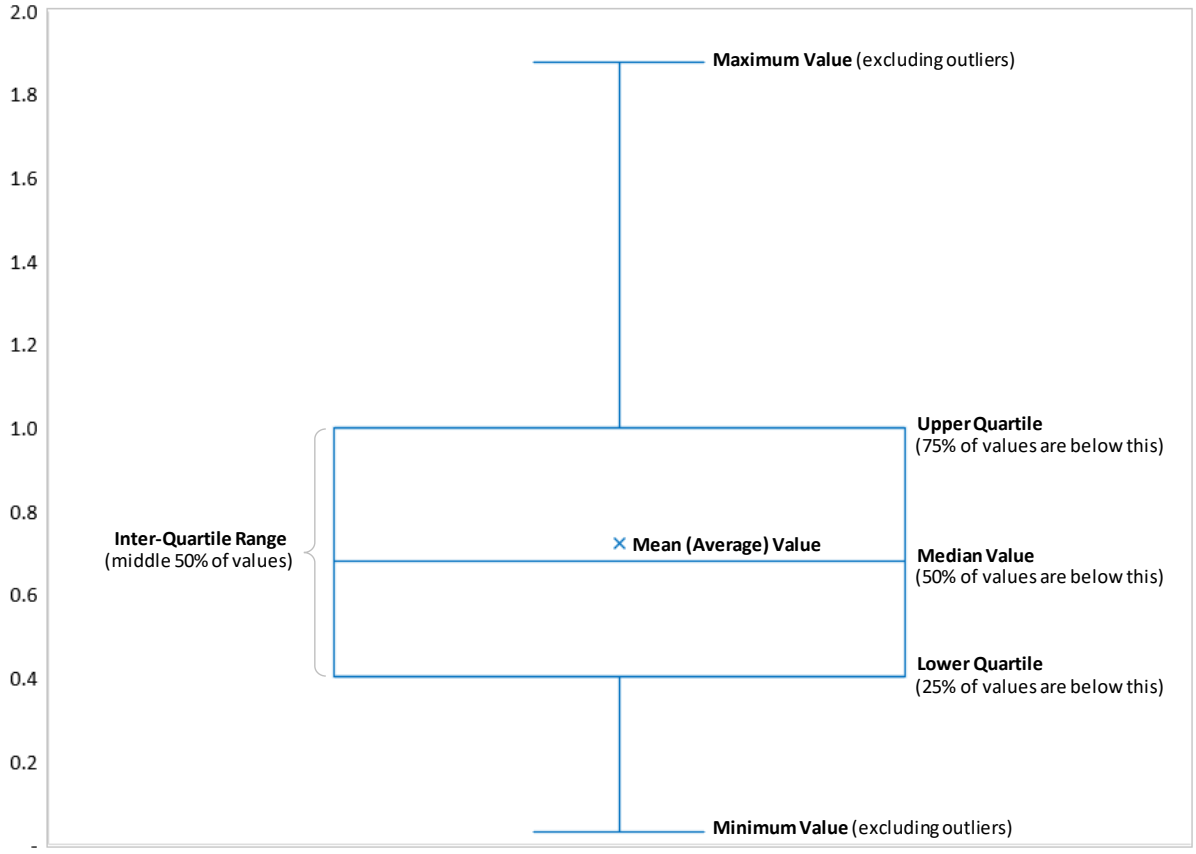
Throughout this report, we make frequent comparisons to earlier data, which was collated when the last similar study was completed in 2007 for the Local Government Rates Inquiry. However, rather than presenting those trend comparisons in a separate section, they are instead peppered throughout the report to improve overall flow and readability.

Further, while these comparisons are often self-explanatory, it is important to note that the Auckland supercity merger in 2011 has reduced the number of Councils relative to 2007, which sometimes unduly skews comparisons over time. To help reduce this distortionary effect, we often express the use or uptake of rating tools as proportions of all Councils, rather than the absolute number of Councils. This largely overcomes the issue, but some caution should still be exercised when comparing values over time using the information presented in this report.

4.8. Interpreting Box & Whisker Plots

This report makes extensive use of a special type of chart called a box and whisker plot, which is commonly used in statistical analysis to summarise a set of data points. The following chart identifies the key elements of these charts and explains what each represents.

Figure 2: Key Elements of a Box & Whisker Plot



In summary, a box and whisker plot summarises a distribution of values by identifying the:

- Mean (average) value;
- Minimum value (excluding outliers);
- Lower quartile (which 25% of values are below);
- Median value (which 50% of values are below);
- Upper quartile (which 75% of values are below);
- Inter-quartile range (within which the middle 50% of values fall); and
- Maximum value (excluding outliers);

4.9. Financial Years

Most Councils work to financial years that end on 30 June. In this report, for ease of reading, we describe financial years based on the year in which they end. Hence, references to 2019 mean the financial year ended 30 June 2019 (unless stated otherwise).

4.10. Treatment of Goods and Services Tax (GST)

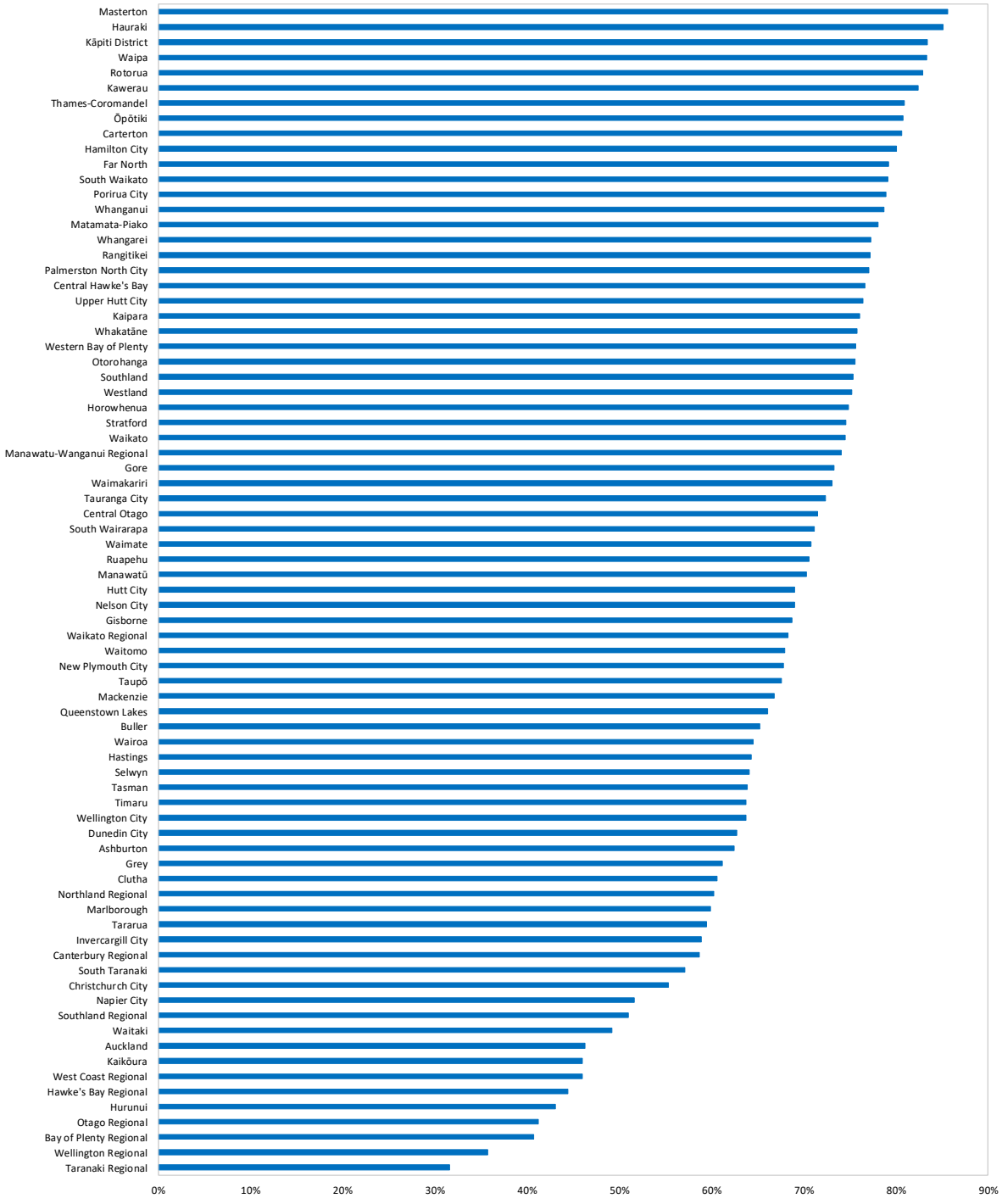
The data in this report all exclude GST unless stated otherwise.

5. Summary of Council Funding

5.1. Rates Share of Total Operating Funding

Councils reported total operating funding of $10.8 billion in 2019, 58% of which was from rates. While the rates share of funding has not changed much over time, it does vary across Councils. For example, one Council raised only 32% of operating funding from rates, while ten raised more than 80% from this source. Overall, TAs raised more total operating funding from rates than regional Councils (59% vs 48%). Figure 3 plots the rates share for each Council in 2019.

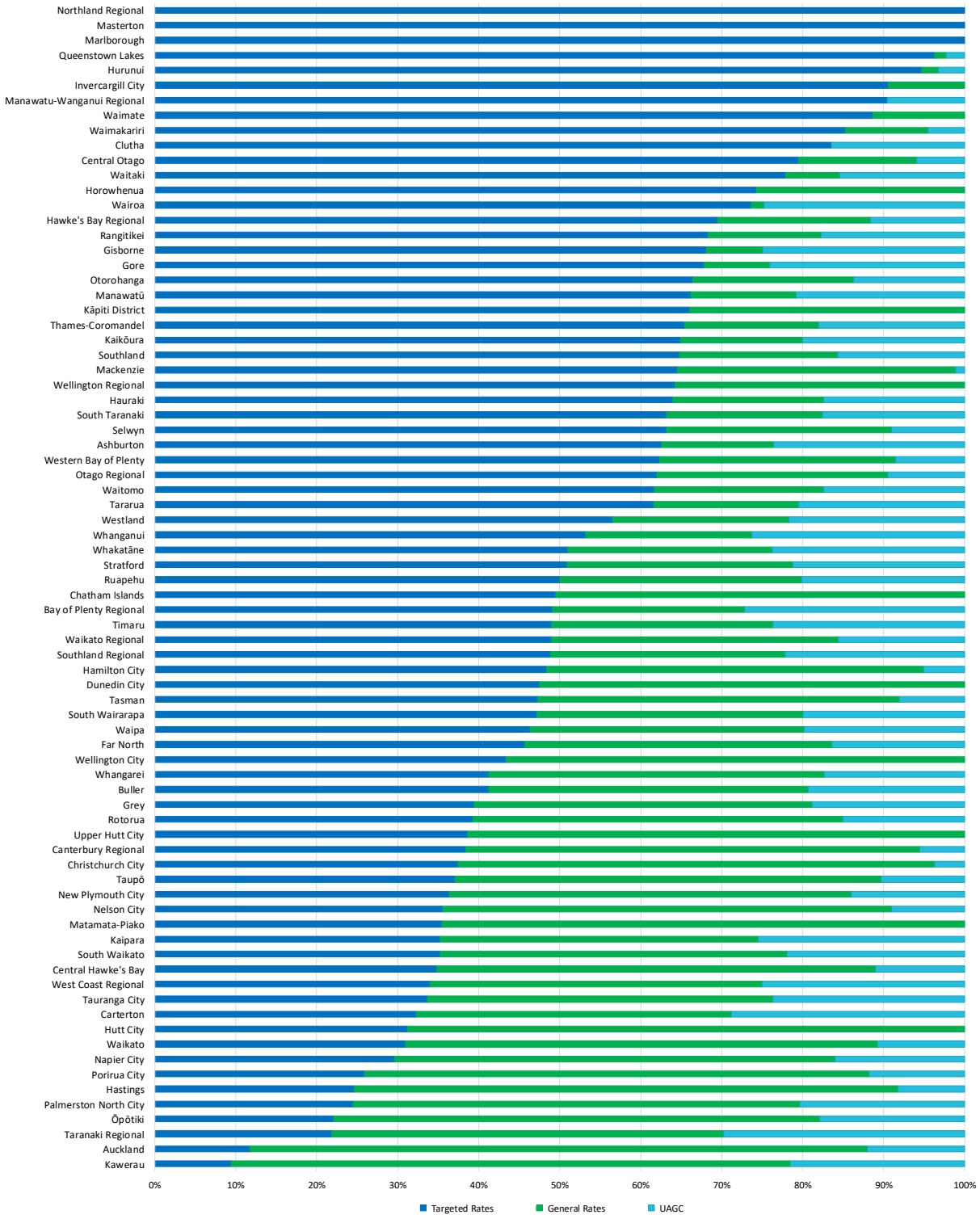
Figure 3: Rates Shares of Total Operating Funding (2018/19)



5.2. Rates Funding by Rating Tool

Figure 4 shows the composition of total rates takes in 2019 by rating tool. The dark blue bars represent targeted rates, green bars represent general rates, and light blue bars represent UAGCs. Overall, targeted rates account for 39% of total rates funding, general rates account for 50%, and UAGCs 11%. However, again, there is significant variation across Councils, as illustrated below.

Figure 4: Composition of Council Rates Funding in 2019



5.3. Comparison Across Sector Groups

We now compare rates funding mixes across the four Council sector groups identified in the methodology (section 4.4). However, we present the results for Auckland separately from other metropolitan Councils so that its unique funding mix does not unduly distort the average for that sector group.

To begin, Figure 5 shows the general rates shares of total rates raised in 2019. There are clear differences across the sector groups, with general rates being a much more important source of rates funding to Councils in urbanised areas than in rural areas. For example, Auckland's general rates share is nearly triple that of rural Councils, and more than double that of provincial Councils.

Figure 5: General Rates Share of Total Rates Raised in 2018/19

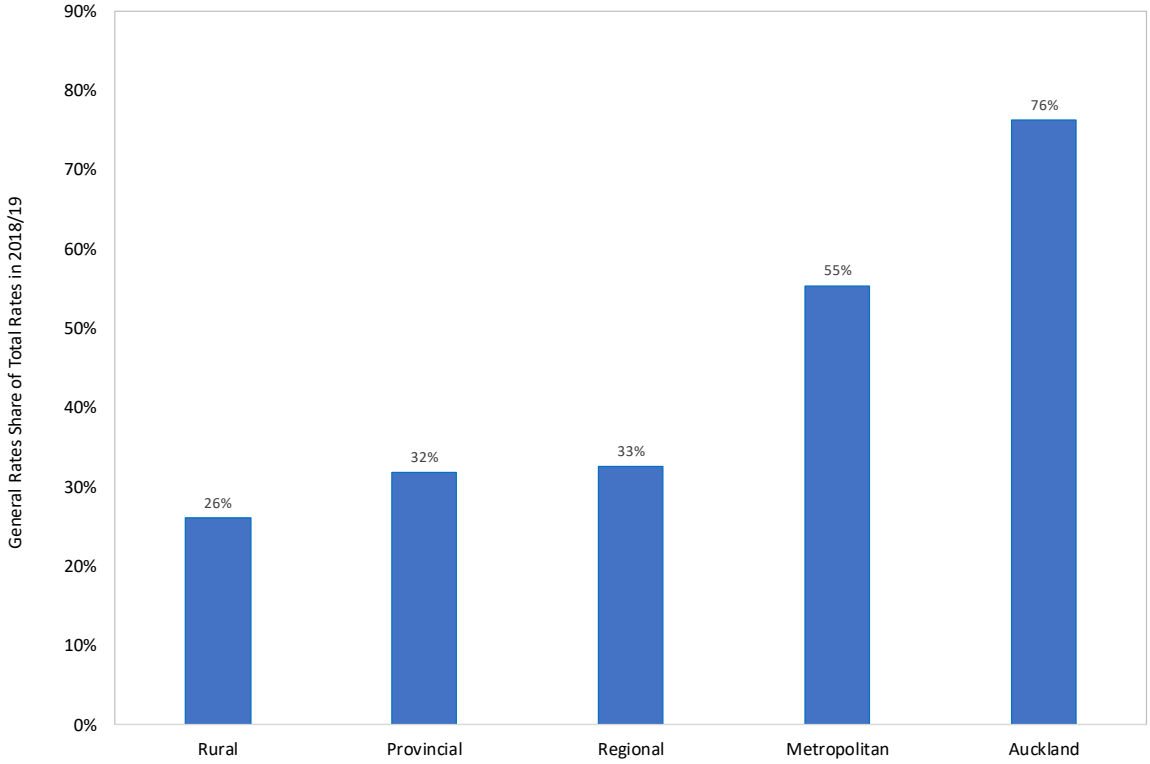
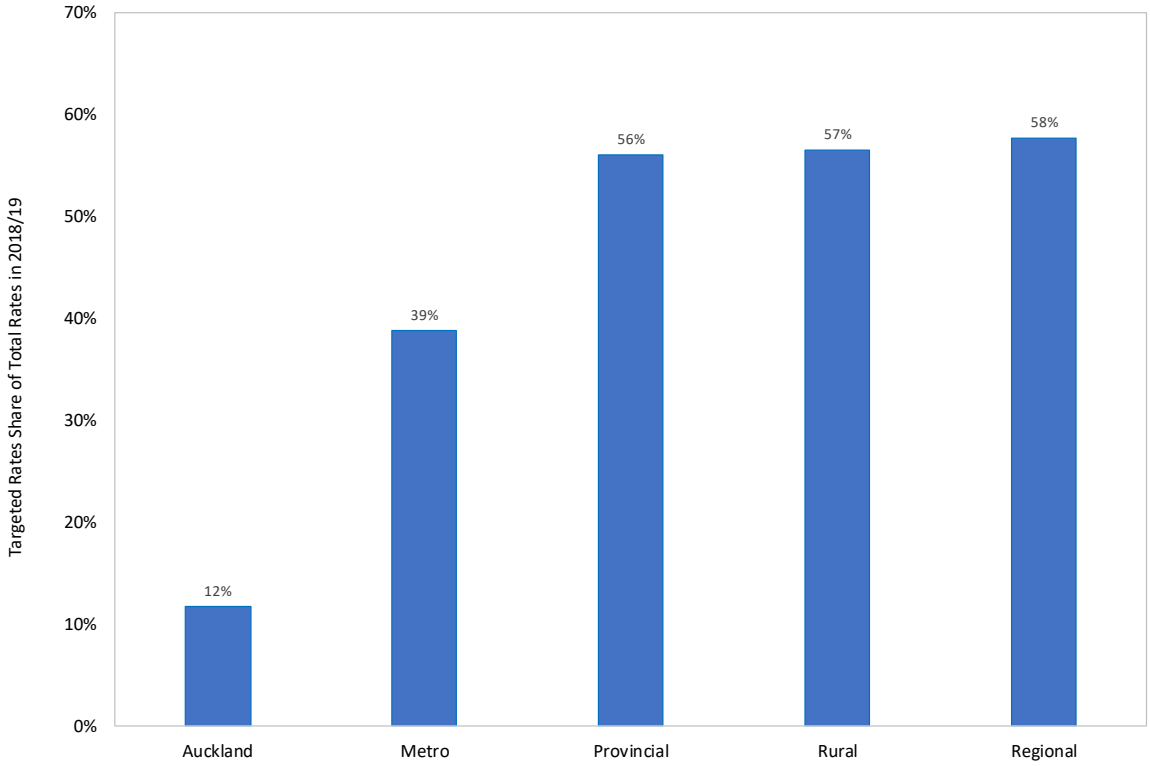


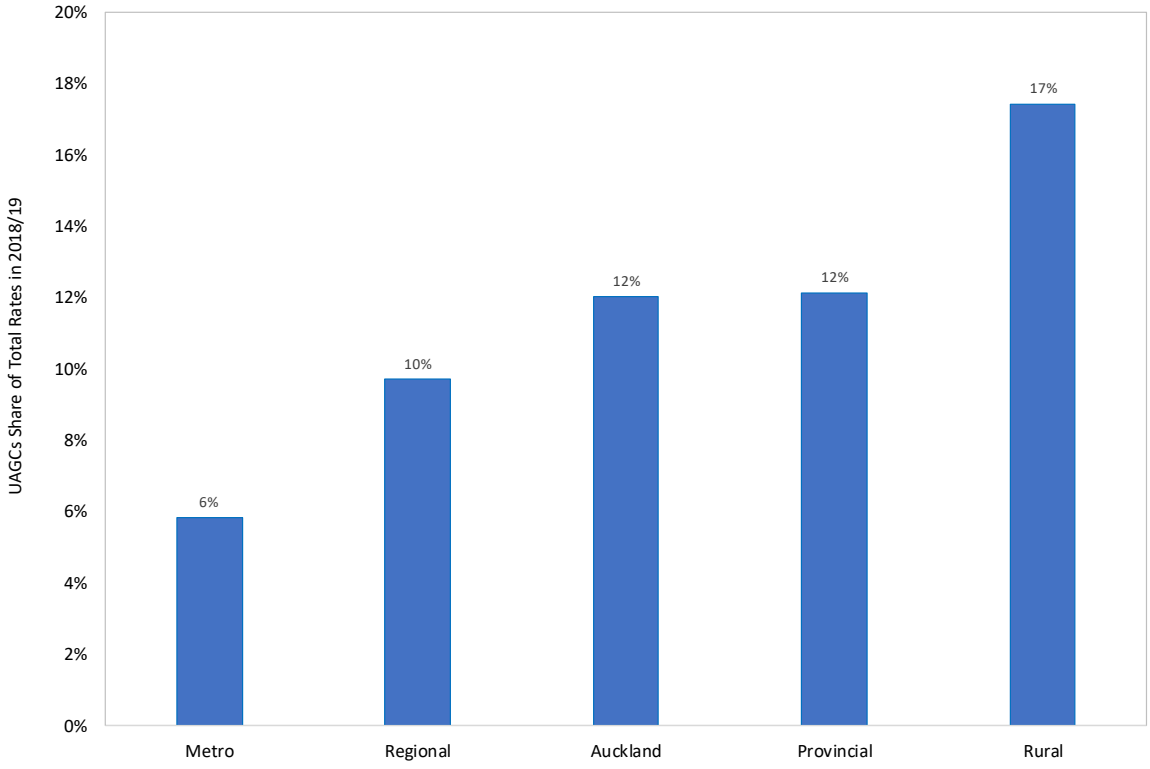
Figure 6 compares targeted rates shares across the groups. Clear differences emerge again, but this time in reverse, with targeted rates being a less important funding tool for Councils in urbanised areas compared to those in rural areas. Auckland continues to be an outlier, with its targeted rates funding share being three or four times less than the other sector groups.

Figure 6: Targeted Rates Share of Total Rates Raised in 2018/19



Finally, Figure 7 compares UAGC shares across the groups. While these (again) differ between rural and metropolitan areas, Auckland is no longer an outlier and instead represents the median. Overall, however, Auckland's funding mix is significantly different than other Councils, including the metropolitan group of which it normally forms part.

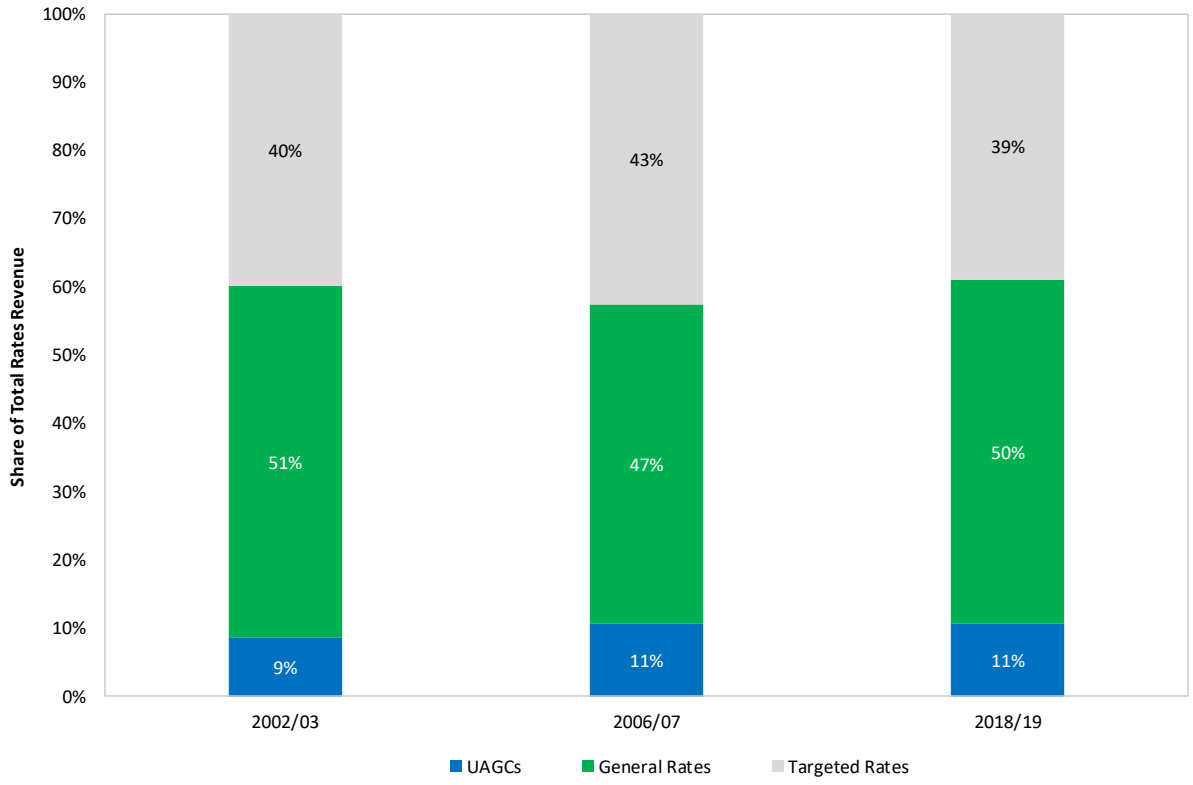
Figure 7: UAGCs Share of Total Rates Raised 2018/19



5.4. Changes Over Time

Figure 8 compares the composition of total rates revenues in 2003, 2007, and 2019. It shows that the distribution has remained fairly constant over that period, with only relatively minor changes occurring.

Figure 8: Shares of Total Rates Revenues by Rating Tools



Despite the relative stability of these funding mixes, however, there has been a gradual increase in the uptake of one rating tool, UAGCs. In 2003, 67% of Councils levied a UAGC, compared to 82% in 2019. As a result, the UAGC share of rates has increased from 9% to 11% over that period.

6. Use of General Rates

This section analyses the current use of general rates in New Zealand.

6.1. Number of Councils Setting a General Rate

In 2019, 73 of 78 Councils (94%) set a general rate. However, use varied by council type. Specifically, 82% of regional Councils set a general rate, compared to 96% of TAs. Accordingly, general rates are more commonly used by TAs than other Councils.

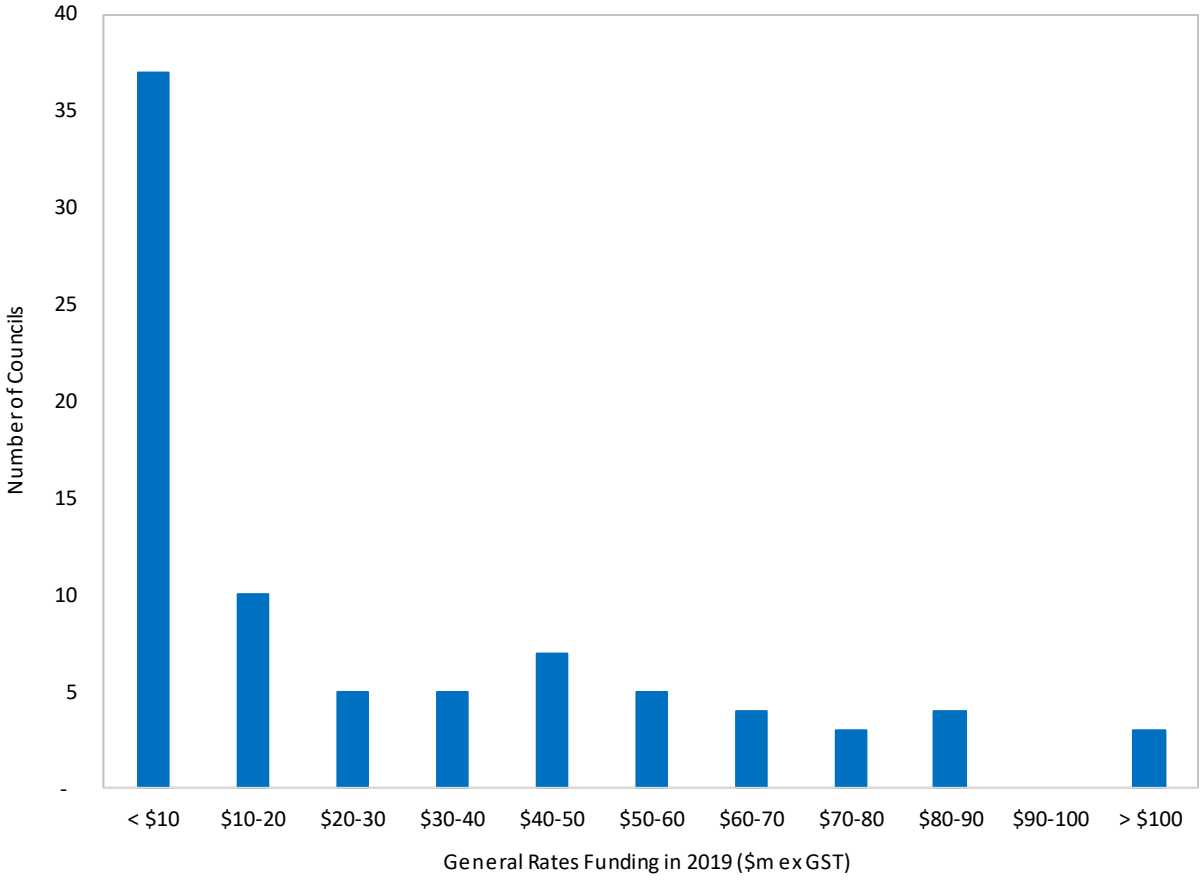
6.2. Rating Bases Used

71% of Councils that set a general rate did so on capital value, while 29% set it on land value. TAs were more likely to use land value than other councils, with 30% of TAs using land value, compared to 21% of regional Councils.

6.3. Funding Received

In 2019, $3.2 billion was raised via general rates, which is an average of $43 million per Council (that set a charge). Three Councils raised less than $1 million from general rates, while three Councils raised more than $100 million. The highest amount raised was $1.4 billion. Figure 9 shows the distribution of general rates funding in 2019.

Figure 9: Distribution of General Rates Funding in 2019 ($m ex GST)

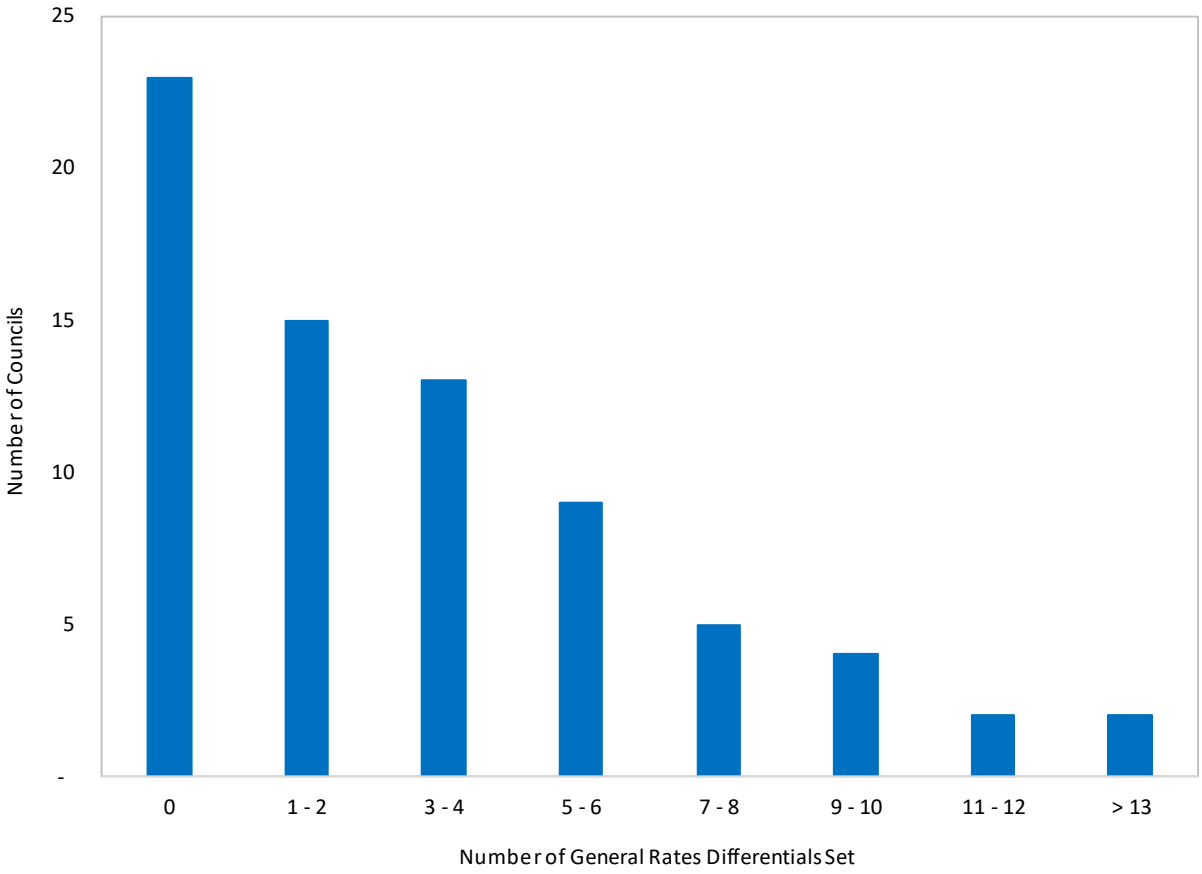


6.4. Rating Differentials

General rates are set per dollar of land value or capital value, depending on which base applies. However, the rate paid often varies across ratepayer groups, which gives rise to so-called 'rating differentials.' These are typically expressed relative to the most common residential rate. For example, if most residential properties pay (say) $1 per $100,000 of rateable value, but business ratepayers pay $2, the business differential is 2.

In 2019, 50 of the 73 Councils that set general rates applied differentials. Figure 10 elaborates by plotting the number of general rate differentials used by each Council. It shows that most Councils set only a handful of differentials, if any. However, one Council set 43.

Figure 10: Number of General Rate Differentials Applied



Rating differentials may be set for various reasons, which are often couched in terms of equity or efficiency concerns. However, in practice, the most common effects of differentials are to:

- Increase the rates paid by businesses;
- Decrease the rates paid by rural properties;
- Alter the rates paid on miscellaneous land uses, such as utilities providers; or
- Vary the rates paid by different types of residential properties.

The following subsections now analyse the differentials set for each purpose above.

6.4.1. Business Differentials

32 of the 73 Councils (44%) that set a general rate applied a business differential. While three set differentials that were less than one, meaning that businesses paid *less* than the usual residential rate, nearly all were greater than one. The average business differential was 8.8 (including outliers), while the median was 2.5. This reflects a handful of very high values, which drag the average up. For example, one Council set a business differential of 345 for mining. Figure 11 presents a box and whisker chart for the various business rate differentials set in 2019, which excludes the impacts of outliers.

Figure 11: Box & Whisker Plot for Business General Rate Differentials

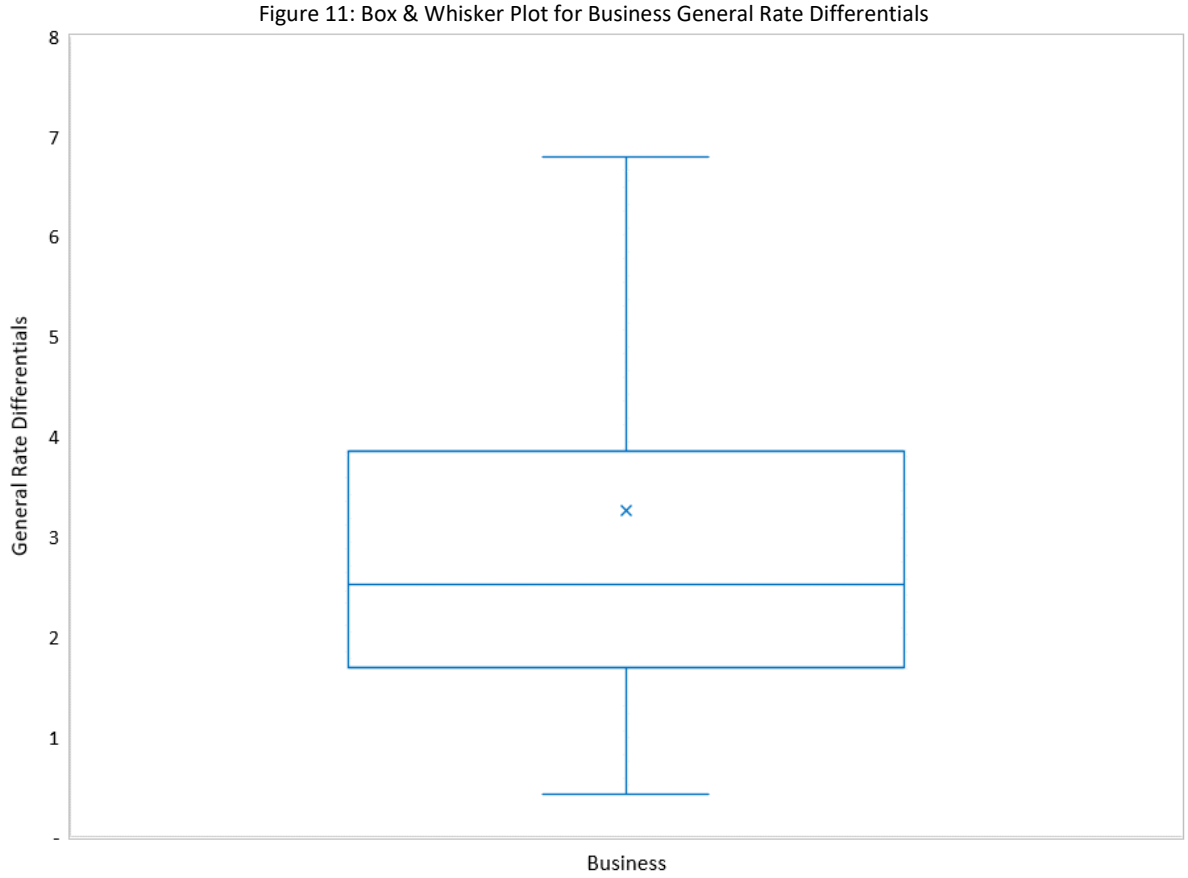
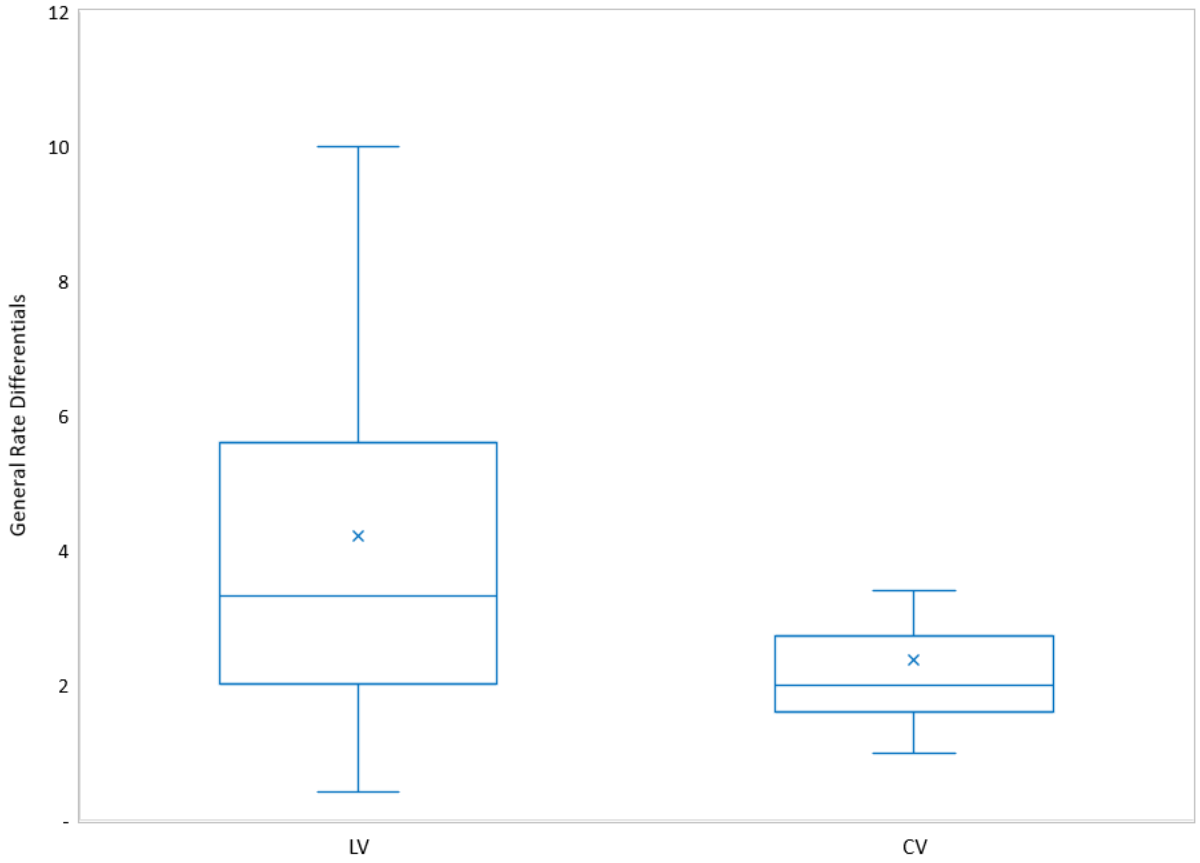


Figure 11 shows that business rate differentials are quite tightly clustered between about two and four, which is approximately the interquartile range (within which the middle half of all values lie).

Interestingly, there are notable differences in the business differentials set by Councils that levy general rates on land value versus capital value. This is shown in Figure 12, which replicates the box and whisker plot above but splits it by rating base. It shows that the median and average differentials for Councils that levy general rates on land value is significantly higher than those that use capital value.

Councils that rate on land value are also more likely to impose a business differential in the first place, with 13 of 23 (56%) setting one in 2018/19 compared to only 19 of 52 (36%) of Councils that set general rates on capital value.

Figure 12: Box & Whisker Plot for Business Differentials by Rating Base



We also analysed whether there were notable differences in the business rate differentials set by Councils in different sector groups. Table 3 presents the results, and shows that there are indeed significant differences. For example, while metropolitan Councils are more likely to set a business differential, the average value set by those Councils is lower than other sector groups. Conversely, while rural Councils are less likely to set a business differential than metropolitan Councils, the values set are generally higher. Regional Councils do not currently set business differentials.

Table 3: Business Differential Summary by Sector Group

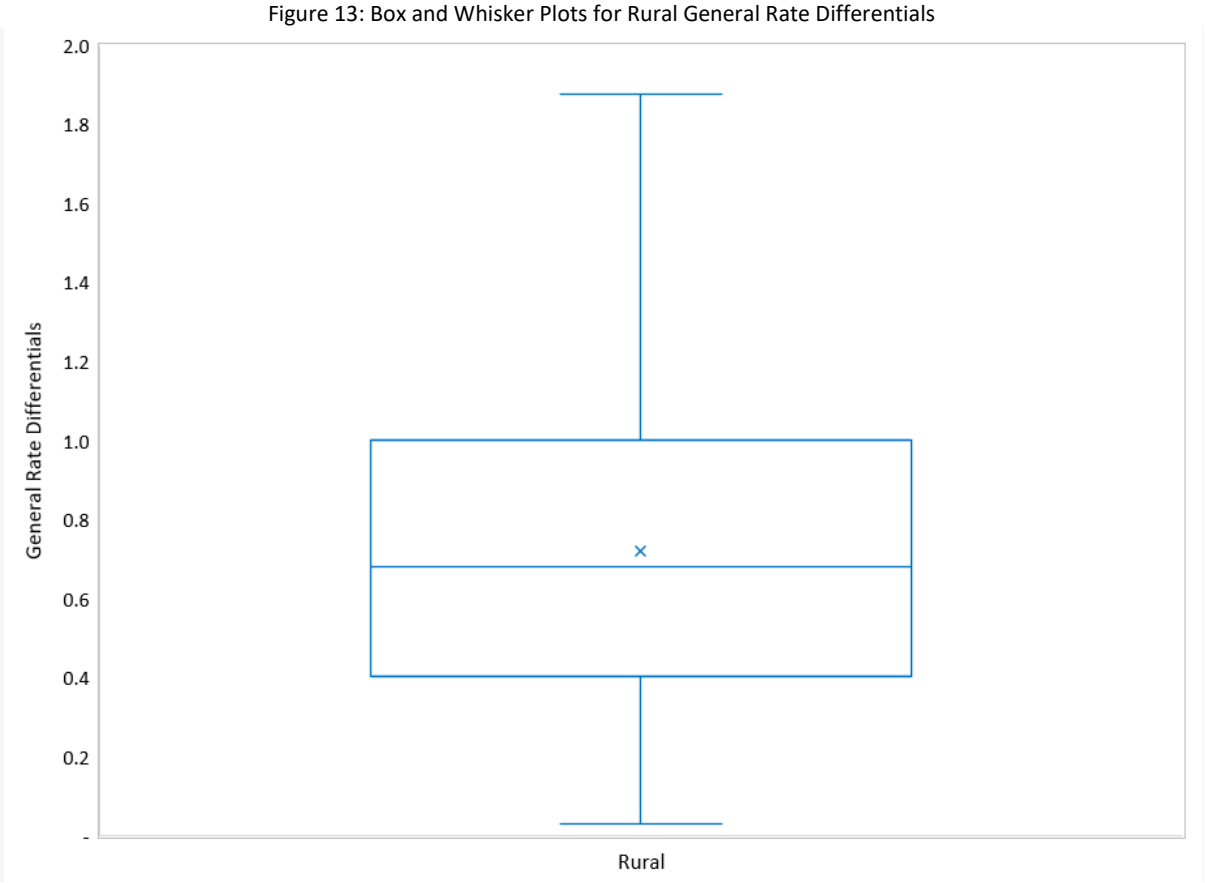
Sector Group	Proportion	Average
Metropolitan	100%	2.26
Provincial	39%	2.99
Regional	0%	n/a
Rural	38%	4.25
All Councils	**41%**	**3.26**

Regardless of whether land value or capital value is used, and irrespective of sector group, business differentials are nearly always greater than one, which means that businesses typically pay higher rates per dollar of rateable value than residences.

6.4.2. Rural Differentials

Just like business differentials, 32 of the 73 Councils that set a general rate also applied a rural differential.[1] The average rural differential in 2019 was 0.7, which means that rural properties pay 30% less per dollar of rateable value than the most common residential ratepayer group. Figure 13 plots the corresponding box and whisker plots to provide further detail. It shows that the median is slightly lower than the mean, and that 75% of rural differentials set are less than 1.

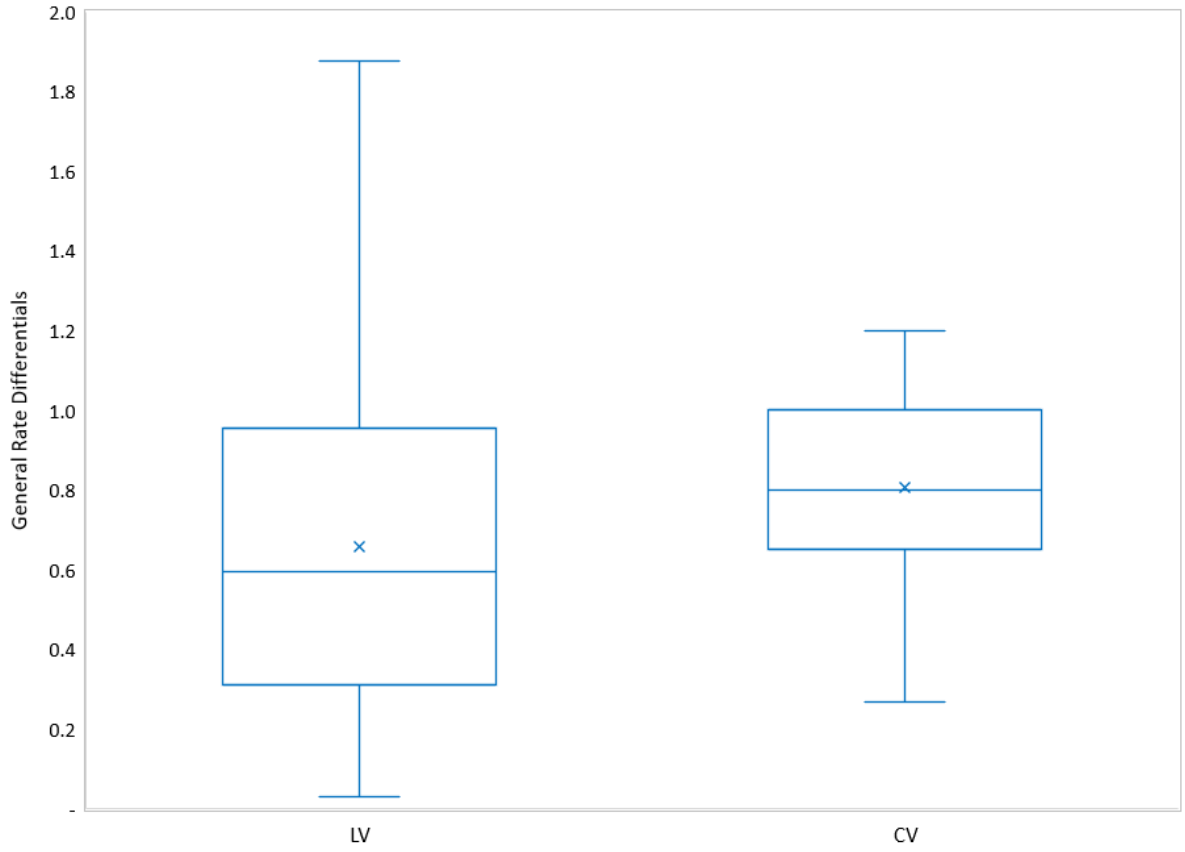
Figure 13: Box and Whisker Plots for Rural General Rate Differentials



Again, there are differences depending on whether general rates are based on land value or capital value. However, this time, the average differential is higher for Councils that use capital value than land value. Figure 14 provides further details. It confirms that the median and average rural differential is higher for areas that rate on capital value. However, like business differentials, the range of values is much smaller for Councils that rate on capital values, with much larger variation evident in those setting general rates on land value.

[1] While a small number of Councils also explicitly identified urban differentials, most did not. This is probably because urban properties often form part of the default group against which differentials are set, so they are not distinguished as their own rating category. Accordingly, we focus only on rural differentials here.

Figure 14: Box & Whisker Plot for Rural Differentials by General Rating Base



Like business differentials, we also analysed whether there were notable differences in the rural rate differentials set by Councils in different sector groups. Table 4 presents the results, and confirms that there are significant differences. For example, metropolitan Councils are more likely to set a rural differential than other sector groups, while regional Councils are far less likely (with only one of 11 regional Councils setting them).

Table 4: Rural Differential Summary by Sector Group

Sector Group	Proportion	Average
Metropolitan	70%	0.82
Provincial	42%	0.84
Regional	9%	0.11
Rural	42%	0.62
All Councils	**41%**	**0.70**

6.4.3. Differentials on Other Properties

18 of the 73 Councils that set a general rate applied a differential to miscellaneous (other) properties. However, unlike business or rural differentials – which are clearly used to either increase or decrease the rating burden – differentials set on other properties vary markedly. In fact, about one-third of them had a value less than one, one-third equalled one, and the final third were greater than one. The median value was one, but the average was nearly 14. Again, this reflects a small number of very large outliers, which have dragged the average up.

While 'other' differentials apply to a diverse range of property types, the most common were:

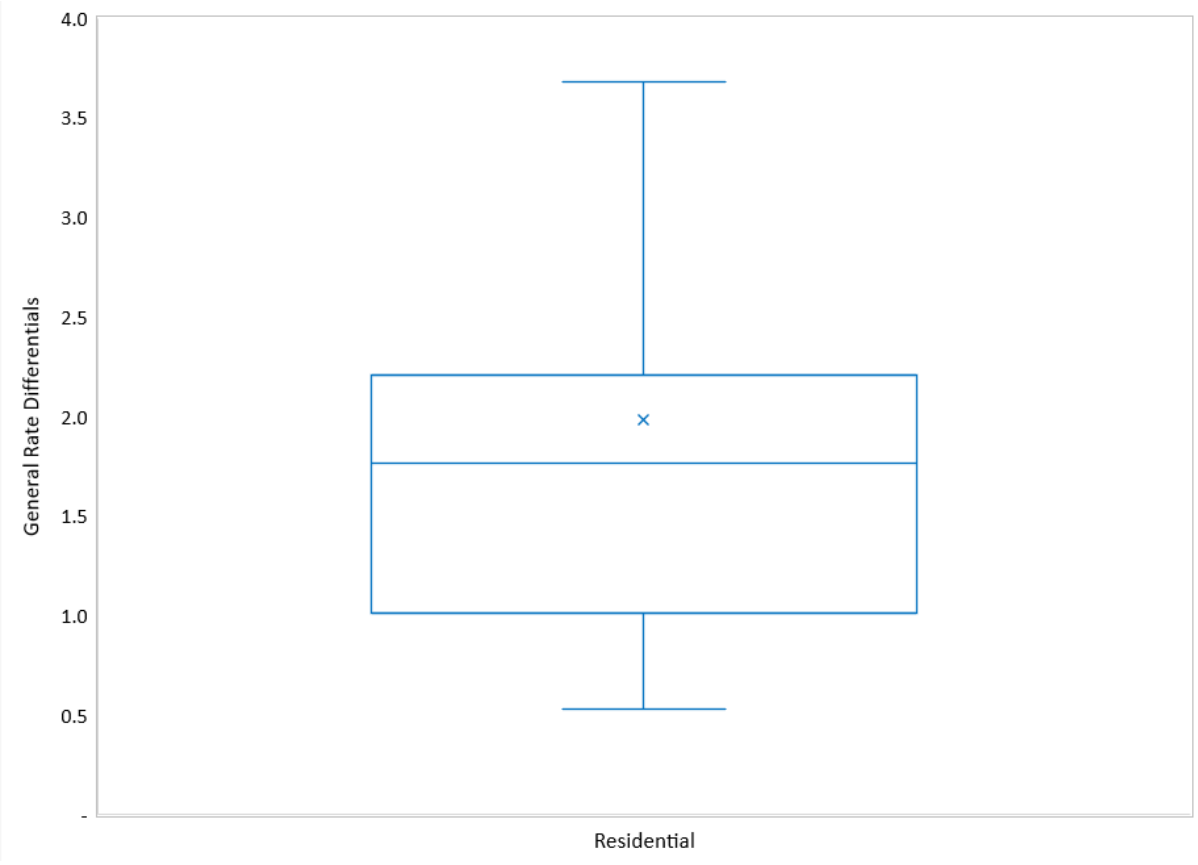
- Community facilities;
- Dams;
- Defence land;
- Electricity generators;
- Infrastructure and utility providers;
- Mining; and
- Offshore islands.

6.4.4. Differentials on Residential Properties

Next, we considered the rating differentials that apply to certain residential properties. While these have traditionally been used to lower the rating burden on higher-value residential properties (by setting a lower marginal rate that applies above a certain threshold), that practice appears less common now. In fact, we found only one Council that explicitly described its residential differentials in these terms. Instead, residential differentials are now more commonly set to vary the rates paid by different types of residential properties, such as multi-unit complexes.

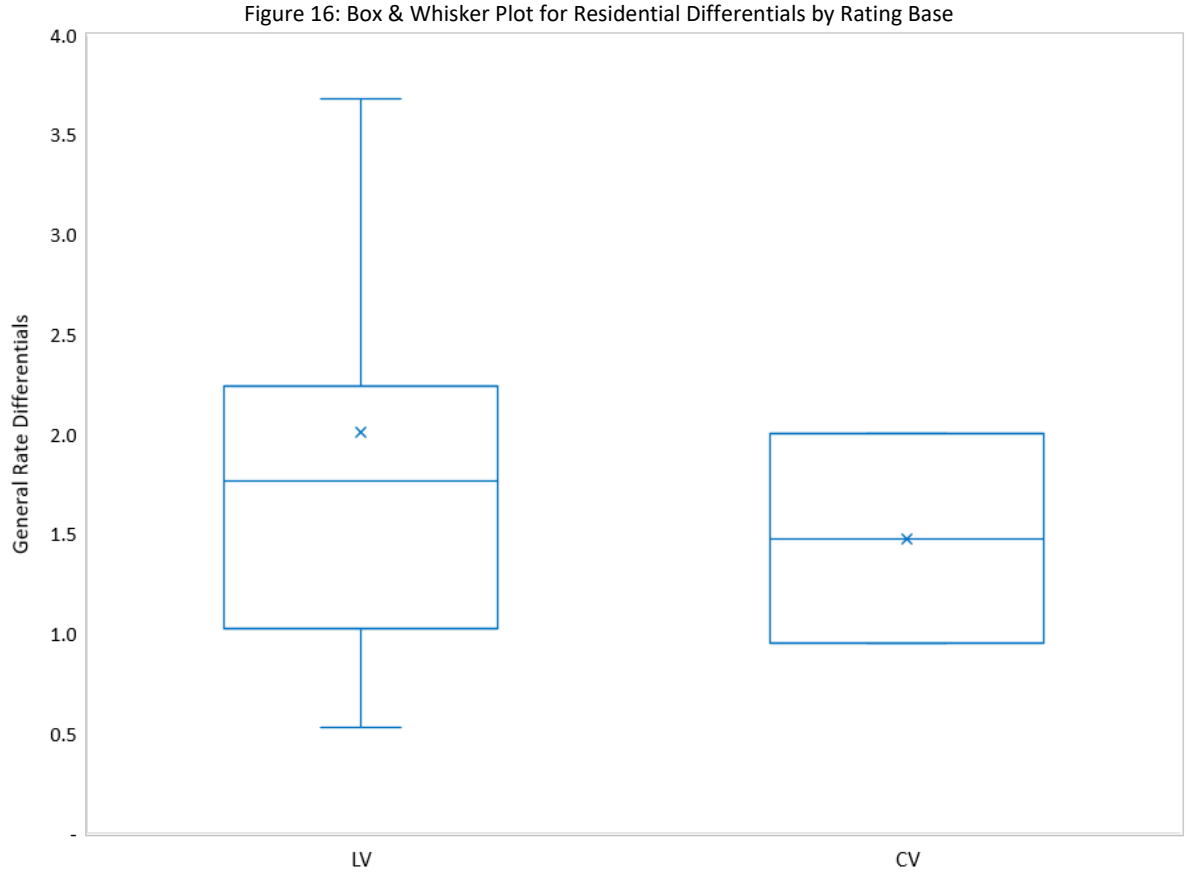
Overall, 10 of the 73 Councils that set general rates included residential differentials on specific types of properties. 40 residential differentials were set in total, half by one Council, and the other half by the remaining nine Councils. Figure 15 presents the box and whisker plot, which reveals that the average residential differential is roughly two, while the median is closer to 1.75.

Figure 15: Box and Whisker Plots for Residential General Rate Differentials



Again, there is notable variation in the use of residential differentials between Councils that set general rates on land value or capital value. In fact, 95% of residential differentials were set by Councils that use land value to levy general rates. Given that only 29% of Councils set general rates on land value in the first place, it follows that such Councils have a much higher propensity to set residential differentials than Councils that use capital value. Figure 16 plots the box and whisker plots for each rating base to illustrate the differences. It shows that the residential differentials set by Councils that levy general rates on land value are higher than Councils that use capital value. In addition, there is greater variation in the residential differentials set on land value relative to capital value.[2]

Figure 16: Box & Whisker Plot for Residential Differentials by Rating Base



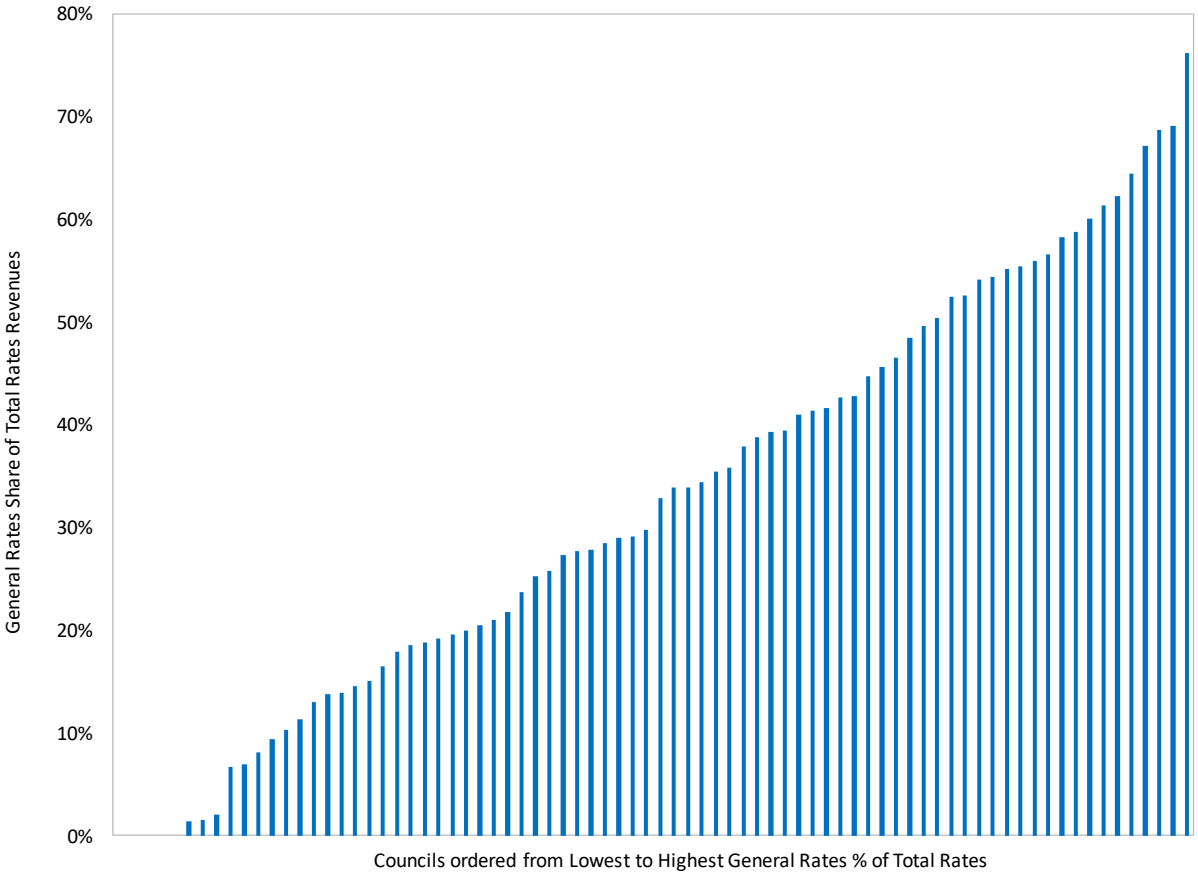
6.5. Shares of Total Rates Funding

Figure 17 plots the shares of total rates funding raised by Councils from general rates in 2019. It shows that general rates (naturally) contributed nothing to the handful of Councils that do not set such a charge, and that the maximum share of rates raised from this source was nearly 80%. Overall, however, general rates accounted for 50% of total rates revenues in 2019, which seems quite high given this distribution of values.

[2] The box and whisker plot for CV has no whiskers as it contains very few data points, so the upper and lower quartiles effectively also represent the maximum and minimum (excluding outliers). As a result, it does not contain any separate whiskers to represent the maximum and minimum values.

The reason for this high overall average is probably Auckland Council, whose total rates take in 2019 was nearly 30% of the national total, and who raised 76% of this via general rates. In short, because Auckland Council is so large, and because it raises such a big proportion of its total rates from general rates, it drags the national average up considerably. For example, when Auckland is excluded, the proportion of total rates raised from general rates in 2019 falls from 50% to 40%.

Figure 17: Share of Total Rates Raised from General Rates



6.6. Changes Over Time

Comparing the 2019 data to earlier data collated in 2007, we found that that the number of Councils using general rates has not really changed. However, the overall reliance of Councils on this funding tool has fallen quite dramatically. This is illustrated in Figure 18, which plots the proportion of Councils that raised more than half of total rates from general rates over time. It shows that the proportion of Councils doing this fell from 42% in 2003 to 24% in 2019.

This is an interesting observation, particularly since general rates account for only a slightly lower share of total rates revenues now than they did in the past (51% in 2003 vs 50% in 2019). Again, this is likely to reflect the influence of Auckland Council, who raises more than three-quarters of total rates revenue from general rates.

Figure 19 provides further details using box and whisker plots. It shows that the distribution of values has narrowed considerably over time, and that the median has fallen faster than the average. This is consistent with the perceived impacts of Auckland Council, which affects the average but not the median. Overall, the reliance on general rates has fallen notably since 2003.

Figure 18: Proportion of Councils Raising More than Half of Total Rates from General Rates

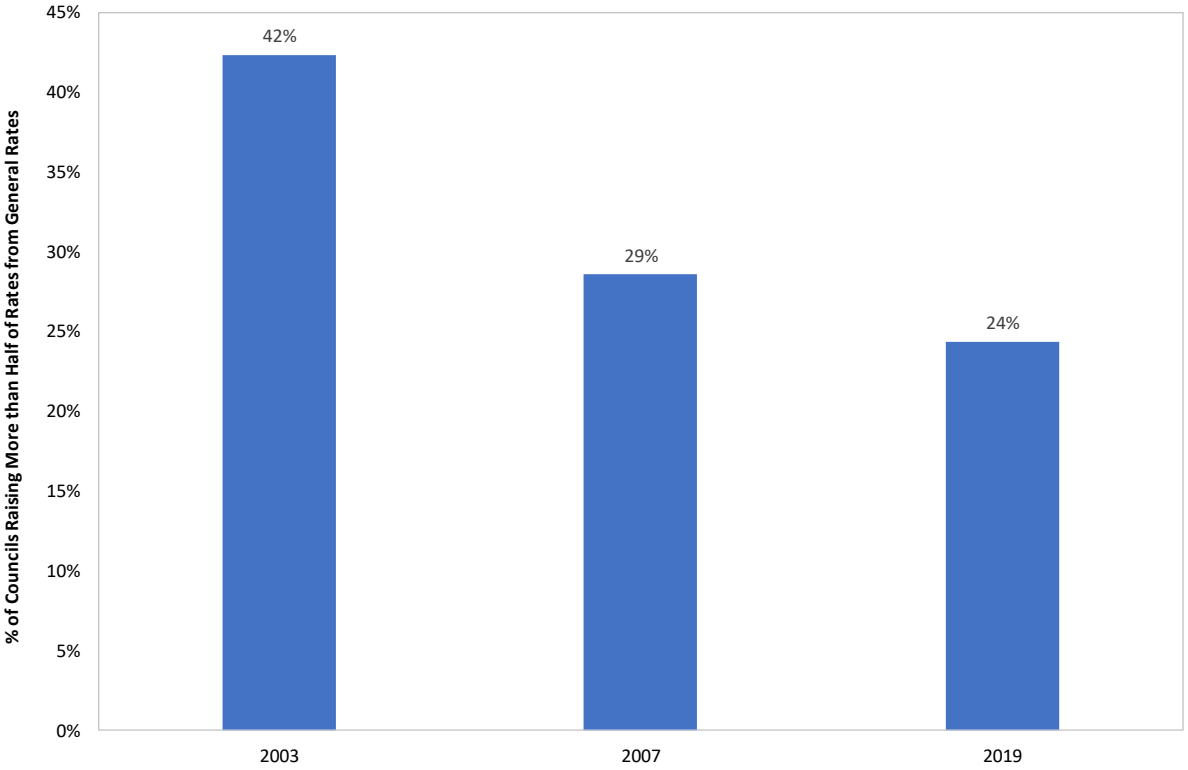
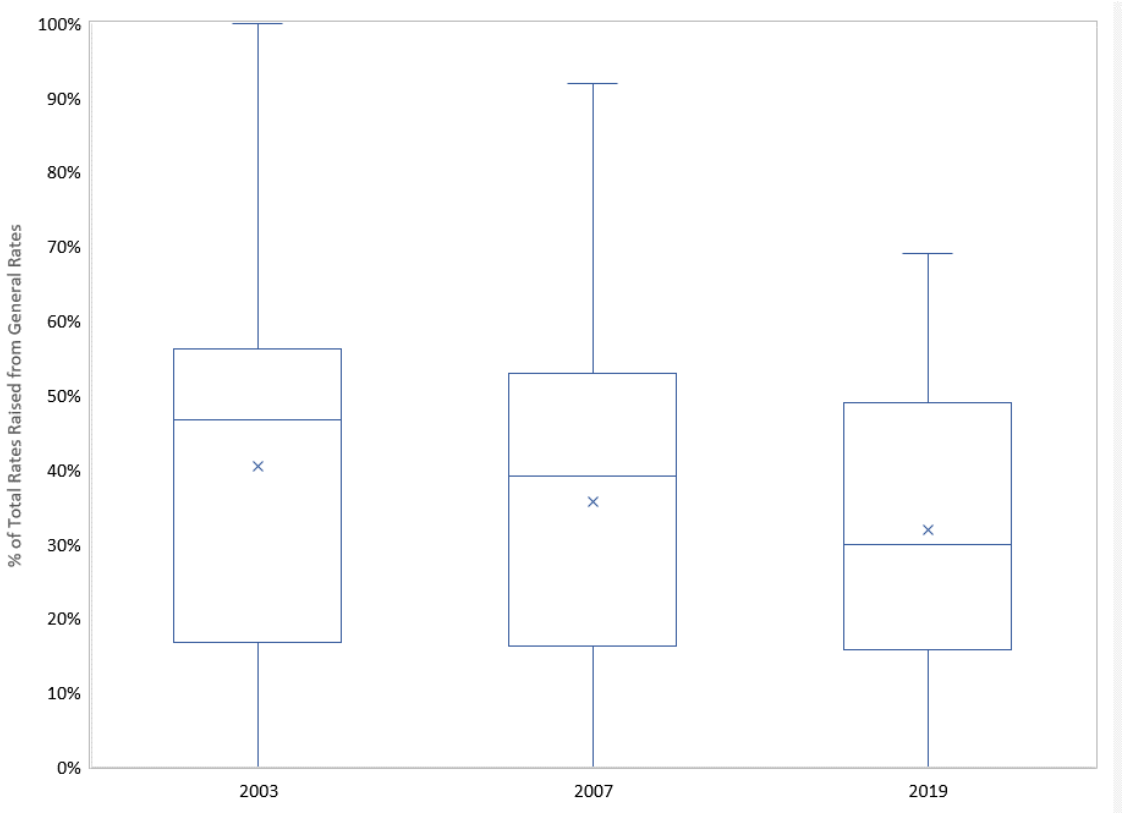


Figure 19: Box & Whisker Plot – Share of Total Rates Raised from General Rates



Not only has reliance on general rates changed, but so too has the rating bases used to set them. Specifically, there has been a marked drop in the use of land value (LV), and a corresponding increase in the use of capital value (CV). Table 5 summarises the data. It shows that not only are

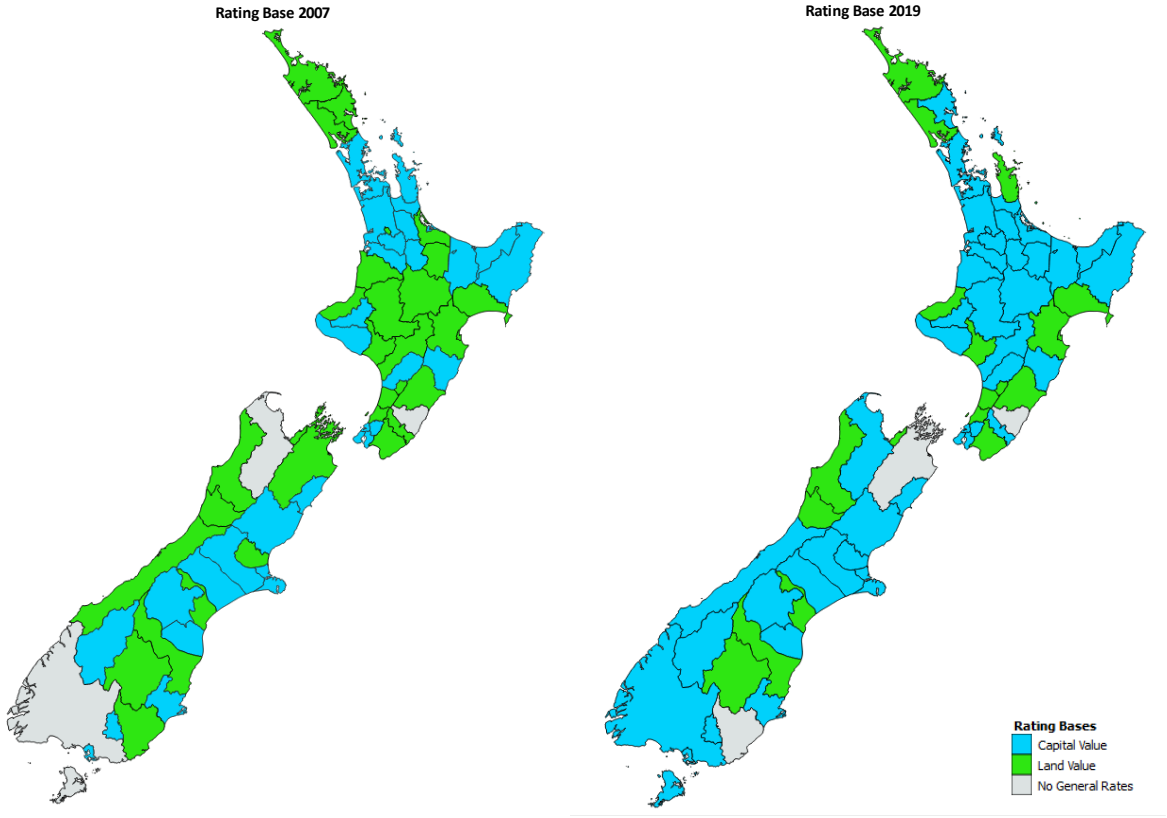
more Councils using CV now, but that the share of general rates raised on this basis has more than doubled since 2007 (from 41% to 88%).

Table 5: Changes in General Rating Bases over Time

	% of Councils Using Base		% of General Rates Raised	
Rating Bases	**2007**	**2019**	**2007**	**2019**
Annual Value (AV)	2%	0%	26%	0
Capital Value (CV)	51%	71%	41%	88%
Land Value (LV)	47%	29%	33%	12%
Totals	**100%**	**100%**	**100%**	**100%**

While these trends partly reflect the Auckland supercity merger, wherein some constituents that previously used LV now use CV, it also seems to mark a general shift away from the use of LV. In fact, ignoring Auckland, we found 12 Councils that had switched from LV to CV since 2007, compared to only one that had switched the other way (from CV to LV). The apparent abandonment of AV, conversely, simply reflects its two former users – Auckland City and Manukau City – now forming part of Auckland Council, which uses CV regionwide. Overall, the trend is clear though: CV is becoming more common, and LV less so. This is illustrated in the maps below, which plots the rating bases used by territorial authorities in 2007 and 2019 [3]

Figure 20: Territorial Authority General Rates Bases in 2007 and 2019



[3] The data for regional Councils is not shown in these maps, but no changes in rating base have occurred for these Councils over the period anyway.

7. Use of Targeted Rates

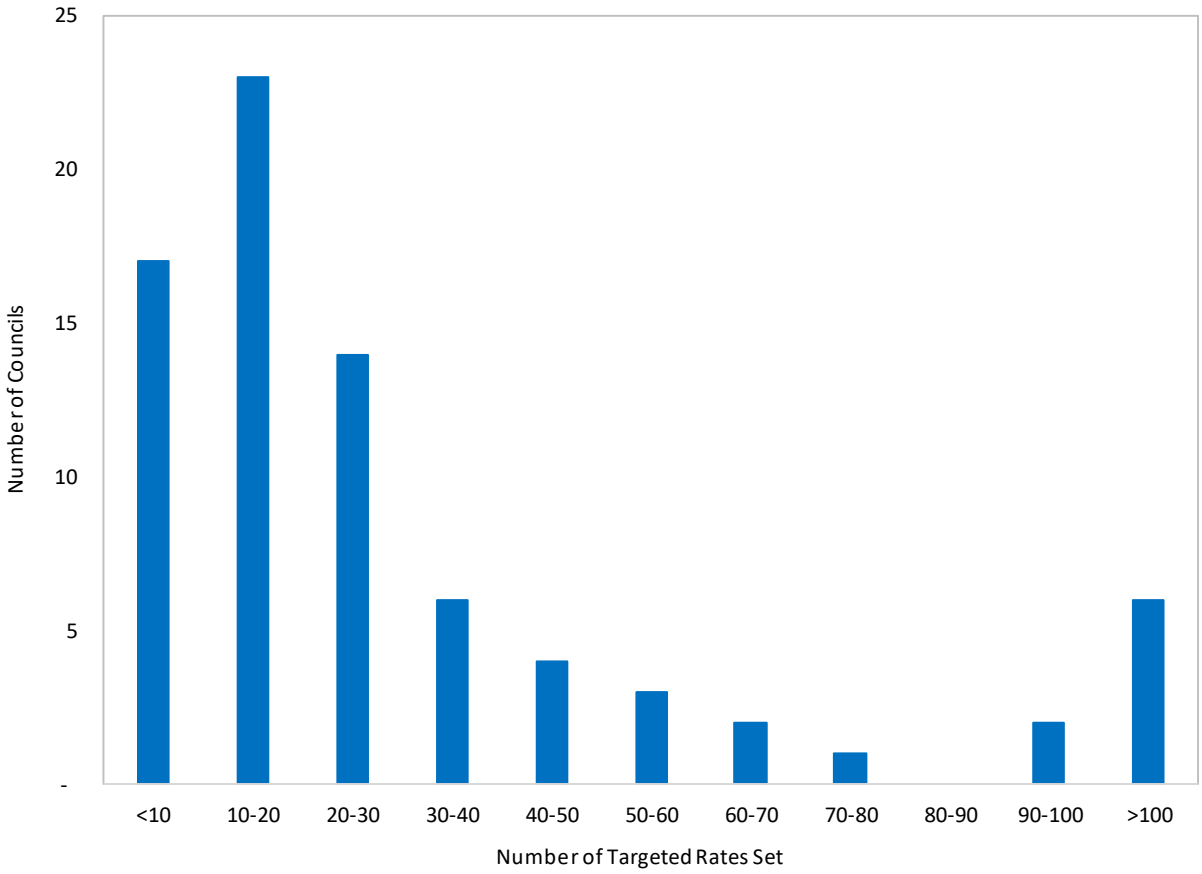
This section provides a detailed analysis of the current use of targeted rates in New Zealand.

7.1. Number of Targeted Rates Set

7.1.1. Summary

In 2019, every Council set at least one targeted rate. One Council set only one targeted rate, with the rest setting four or more. Six councils set more than 100 targeted rates, with the highest being 358. Figure 21 plots the distribution.

Figure 21: Number of Targeted Rates Set by Councils in 2019



7.1.2. By Council Type

Regional Councils set significantly more targeted rates, with an average of 73, versus 29 for TAs. This is likely to reflect the differing responsibilities of each Council type. For example, regional Councils often administer comprehensive drainage and flood protection schemes, which are often funded by equally-complex targeted rating systems with multiple rating categories. This is likely to have contributed to the seemingly greater use of targeted rates by regional Councils.

7.1.3. Rating Bases Used

46% of targeted rates were set on rating units (SUIPs), 24% on capital value, 12% on land value, and 10% on land area. Together, these rating bases accounted for 92% of targeted rates set in 2019. Other common bases include water use, the number of water closets, and connections to the water and/or wastewater systems. Interestingly, while impervious surface area is frequently

used to set development contributions for stormwater activities, it is not currently used to set any targeted rates (for stormwater or any other activity). Table 6 summarises.

Table 6: Number of Targeted Rates Set by Rating Base

Rating Bases	Count	Shares
Rating Units (SUIPs)	1,260	46%
Capital Value	668	24%
Land Value	323	12%
Land Area	280	10%
Water Use	69	3%
Water Closets	63	2%
Other	49	2%
Connections	48	2%
Total	**2,760**	**100%**

7.1.4. Activities Funded

Targeted rates are used to fund a wide range of activities, which we classified into the 10 activity groups, as shown in Table 7.

Table 7: Number of Targeted Rates Set by Activity Group

Activity Groups	Count	Shares
Stormwater & Wastewater	422	15%
Community & Recreation	405	15%
Drainage & Flood Protection	392	14%
Water	381	14%
Other	355	13%
Environment & Sustainability	311	11%
Roading & Public Transport	187	7%
Economic Development	115	4%
Solid Waste	115	4%
Biosecurity, Emergencies, Hazards	77	3%
Total	**2,760**	**100%**

Targeted rates were most commonly set for '3-waters' activities, which include water, wastewater, and stormwater (plus drainage/flood protection). Together, these activities accounted for 43% of targeted rates set in 2019. Other activities commonly funded by targeted rates include community and recreation, environment and sustainability, roading and public transport, solid waste, biosecurity, and economic development.

7.1.5. Ratepayers Liable

Most targeted rates reflect the provision of a specific service, such as water or wastewater, and hence apply to all serviced properties in the area (plus some that are able to connect but have not yet done so), regardless of whether they are residential or not. Consequently, there is often little to say about the incidence of targeted rates across property types or groups. However, there are numerous targeted rates that apply only in rural areas, such as drainage and flood protection, while dozens apply only in business districts, usually for economic development. Overall, however,

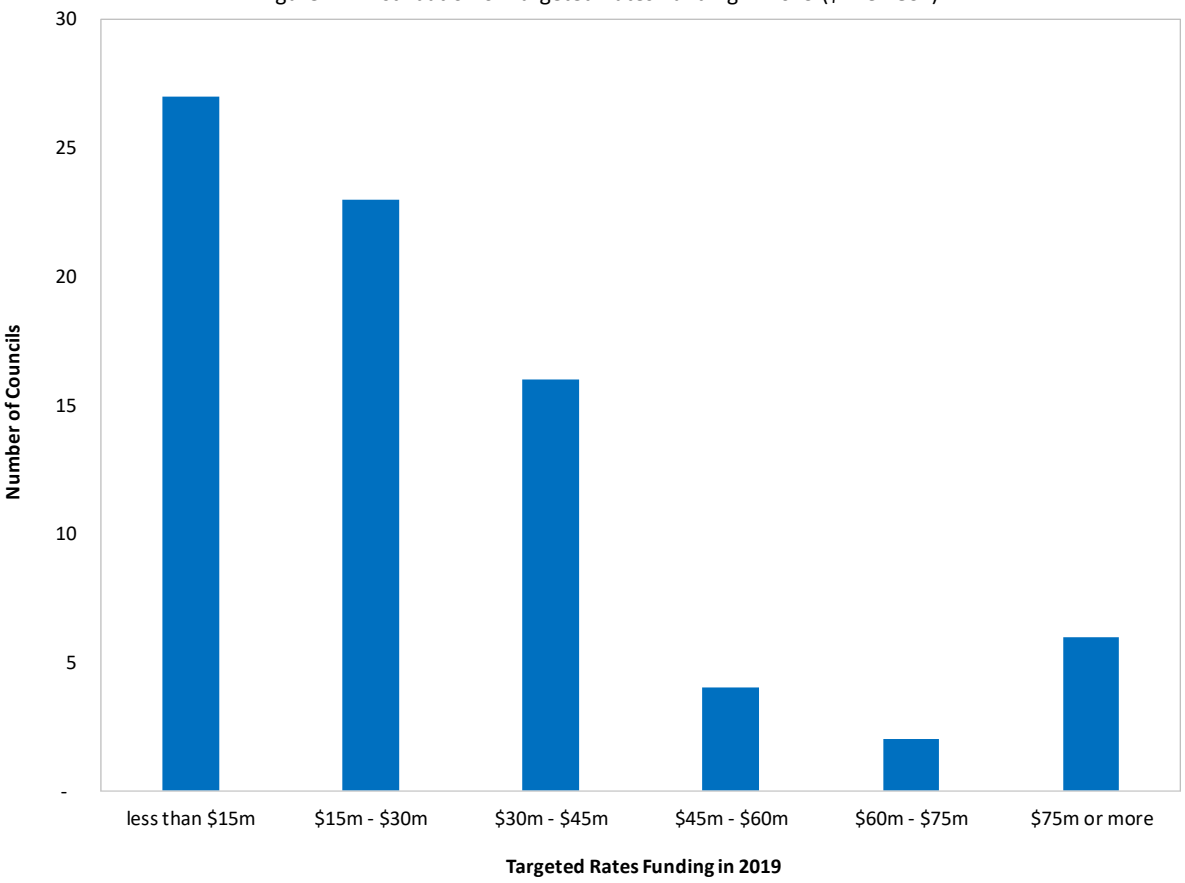
targeted rates do not generally differentiate by property type and instead are focussed on the extent of underlying service provision.

7.2. Funding Received

7.2.1. Summary

In 2019, $2.4 billion was raised via targeted rates, which is an average of $31 million per Council. Two Councils raised less than $1 million from targeted rates, while three raised more than $100 million. The highest amount raised was $214 million. Figure 22 shows the distribution.

Figure 22: Distribution of Targeted Rates Funding in 2019 ($m ex GST)



7.2.2. Rating Bases Used

44% of targeted rate funding was from rates set on rating units (SUIPs), 33% on capital value, 7% on land value, and 6% on water closets. Together, these rating bases accounted for 90% of targeted rates raised.

In general, there is a close link between the shares of rates set by each rating base and their respective shares of funding received. For example, 46% of targeted rates were set on SUIPs, and these rates accounted for 44% of targeted rates received. However, there were some anomalies. For example, water closets accounted for only 2% of targeted rates set, but 6% of targeted rate funding received. Conversely, land area accounted for 10% of targeted rates set, but only 1% of funding. This is because the average amount raised per targeted rate on water closets was more than double the average of all targeted rates, while those for land area were nine times less than average.

Table 8: Targeted Rates Funding by Rating Base

Rating Bases	Total Funding $m	Funding Shares	Average Funding per Rate $m
SUIP	$1,078	44%	$0.9
Capital Value	$810	33%	$1.2
Land Value	$166	7%	$0.5
Water Closets	$135	6%	$2.1
Water Use	$133	5%	$1.9
Connection	$59	2%	$1.2
Land Area	$28	1%	$0.1
Other	$25	1%	$0.5
Total	**$2,435**	**100%**	**$0.9**

7.2.3. Activities Funded

Table 9 shows the distribution of targeted rates funding across activity groups. Again, this is dominated by 3-waters activities, with stormwater, wastewater, and water supply accounting for nearly half the total raised. Other activities that accounted for significant shares of targeted rates funding include roading and public transport, solid waste, and other activities. Again, some activity groups account for a higher or lower share of total funding than their shares of total rates set. For example, environment and sustainability accounted for 11% of rates set but only 2% of the amount funded because its average funding was four times less than the average for all activities.

Table 9: Total Targeted Rates Raised by Rating Base

Rating Bases	Total Funding $m	Funding Shares	Average Funding per Rate $m
Stormwater & Wastewater	$604	25%	$1.4
Water	$500	21%	$1.3
Roading & Public Transport	$319	13%	$1.7
Other	$281	12%	$0.8
Solid Waste	$198	8%	$1.7
Drainage & Flood Protection	$167	7%	$0.4
Community & Recreation	$135	6%	$0.3
Economic Development	$128	5%	$1.1
Environment & Sustainability	$57	2%	$0.2
Biosecurity, Emergencies, Hazards	$45	2%	$0.6
Grand Total	**$2,435**	**100%**	**$0.9**

7.2.4. Activities Funded by Rating base

Finally, Table 10 shows the composition of funding by activity group and rating base. It shows that most targeted rates are raised via charges set on rating units (SUIPs) or capital value. In fact, 77% of all targeted rates comes from these rating bases. Land value is also relatively widely used for a range of activities, as is land area. As expected, only water activities are funded by targeted rates set on water use, while only wastewater activities are funded by charges rates set on water closets.

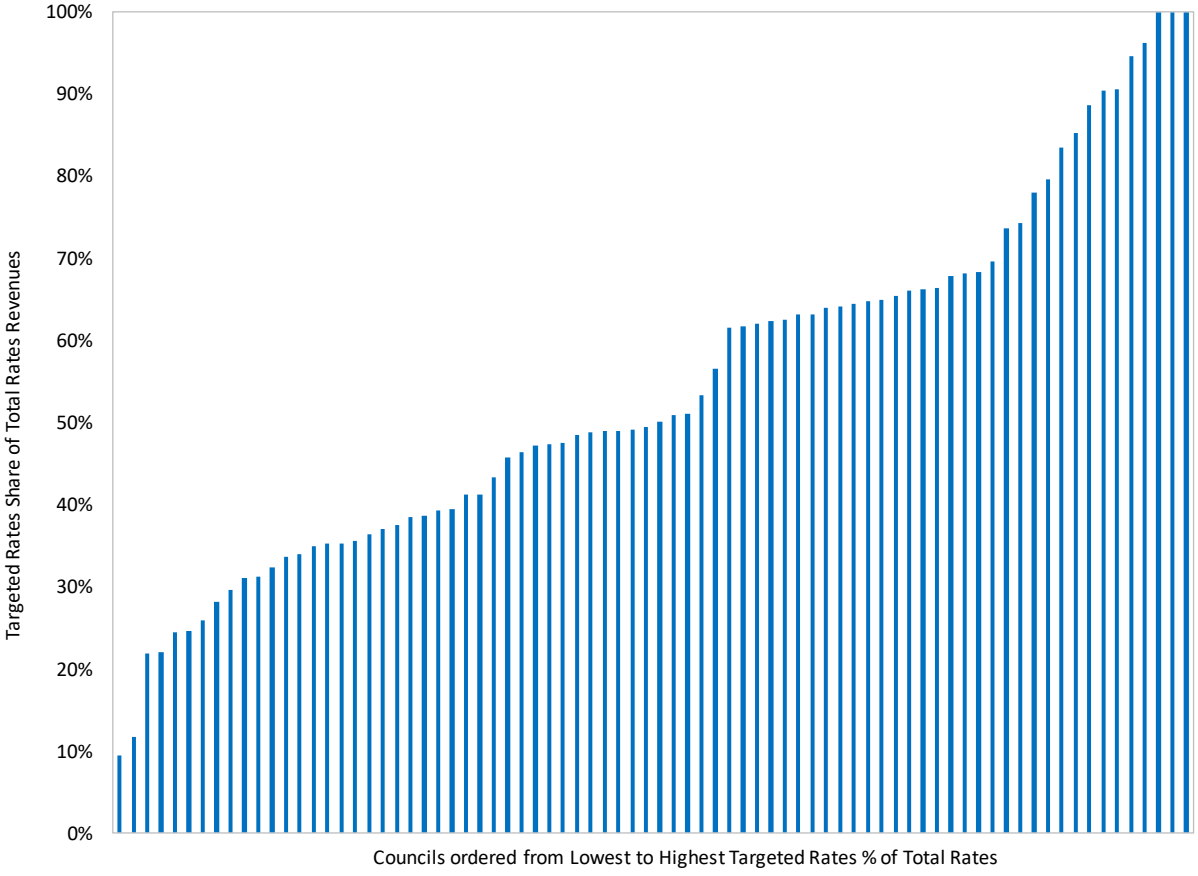
Table 10: Shares of Targeted Rates Funding for Each Activity Group by Rating Base

Activity Groups	Rating Units	Capital Value	Land Value	Water Closets	Water Use	Land Area	Other	Total
Stormwater & Wastewater	44%	32%	1%	22%	0%	0%	1%	100%
Water	54%	7%	1%	0%	27%	1%	12%	100%
Roading & Public Transport	13%	77%	10%	0%	0%	0%	0%	100%
Other	43%	18%	35%	0%	0%	0%	4%	100%
Solid Waste	94%	1%	0%	0%	0%	0%	5%	100%
Drainage & Flood Protection	23%	58%	7%	0%	0%	12%	0%	100%
Community & Recreation	88%	11%	1%	0%	0%	0%	0%	100%
Economic Development	12%	87%	1%	0%	0%	0%	0%	100%
Environment & Sustainability	14%	70%	15%	0%	0%	1%	1%	100%
Biosecurity, Emergencies	43%	40%	6%	0%	0%	10%	2%	100%
All Activities	**44%**	**33%**	**7%**	**6%**	**5%**	**1%**	**3%**	**100%**

7.3. Shares of Total Rates Funding

Figure 23 plots the share of total rates raised from targeted rates in 2019. It shows that targeted rates contributed less than 10% of the total for one Council, while three Councils raised all their rates from targeted rates. Overall, targeted rates accounted for 39% of total rates revenues in 2019. Again, just as Auckland Council is likely to have skewed the contribution of general rates to the national rates take, it has probably also reduced the overall contribution of targeted rates because it raised only 12% of its rates from this source. In fact, excluding Auckland, the share of total rates raised from targeted increases from 39% to 50%.

Figure 23: Share of Total Rates Raised from Targeted Rates



7.4. Changes Over Time

Just like general rates, there has been relatively little change in the number of targeted rates that Councils set. However, there has been an increase in the overall reliance on this funding source since 2003, as illustrated in the figure below.

Figure 24: Share of Councils Raising More than Half of Total Rates from Targeted Rates

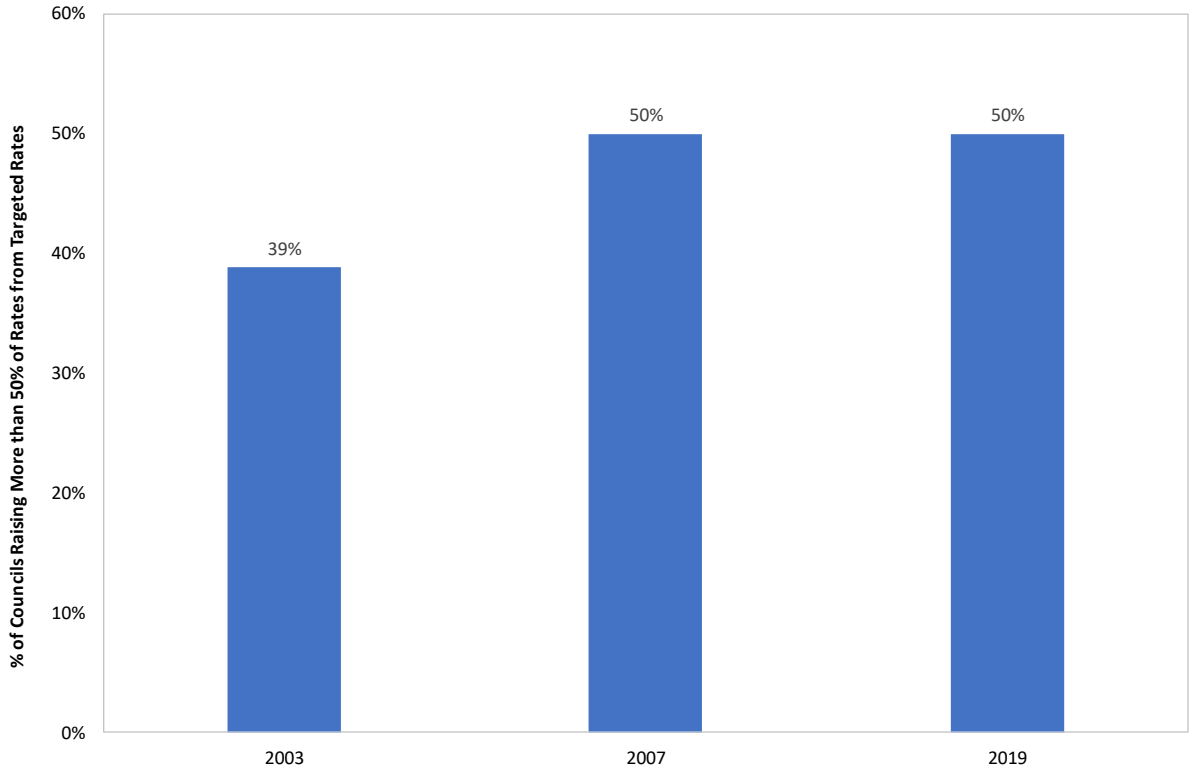
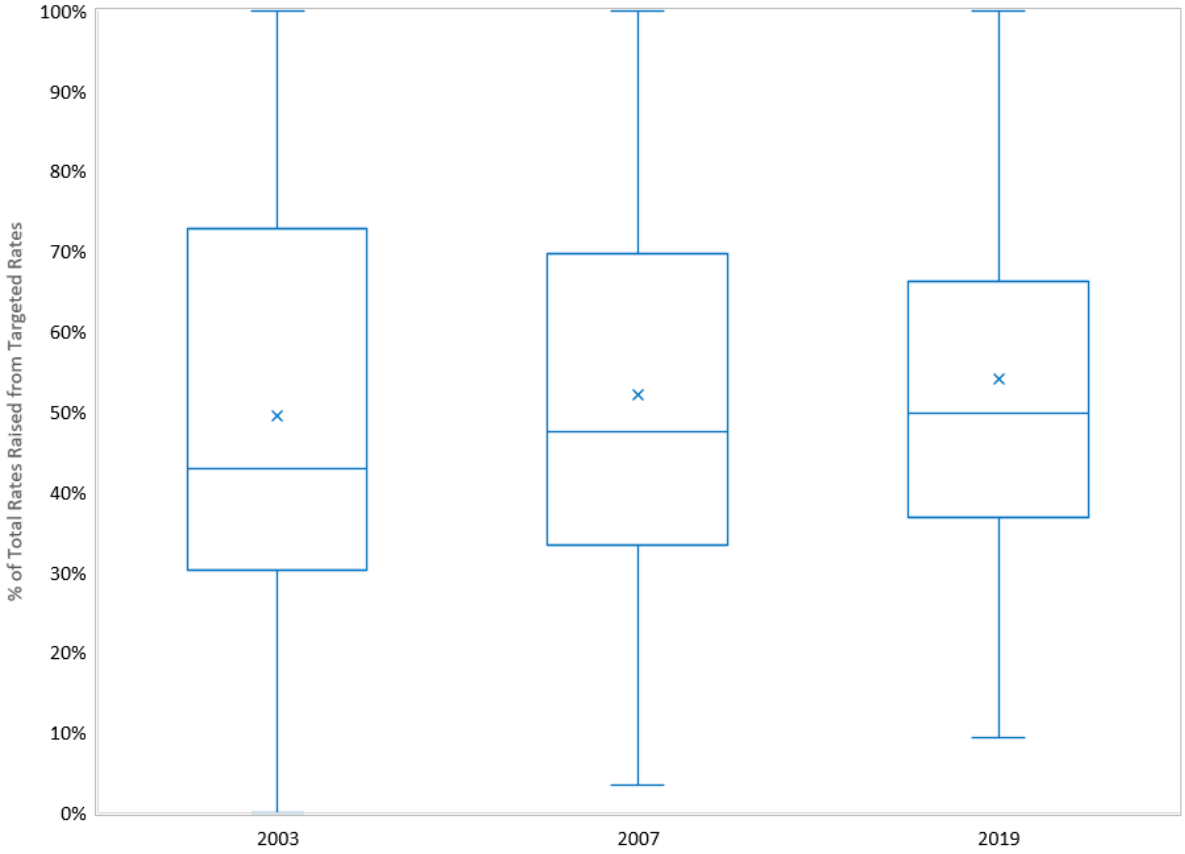


Figure 25 provides further information by plotting the underling box and whisker charts. These show that the average share of rates raised from targeted rates (as shown by the x's) has increased slightly over time, with more notable increases in the medians. The range of values is also compressing over time, which suggests that rating practices are becoming more similar than in the past. It is also interesting to note that the minimum share of total rates raised from targeted rates has increased over time, from zero in 2003 to 4% in 2007, and 9% in 2019.

Thus, overall, reliance on targeted rates is increasing over time, and Councils are becoming more similar in their reliance on this funding source.

Figure 25: Box & Whisker Plot – Share of Total Rates Raised from Targeted Rates



8. Use of Uniform Annual General Charges

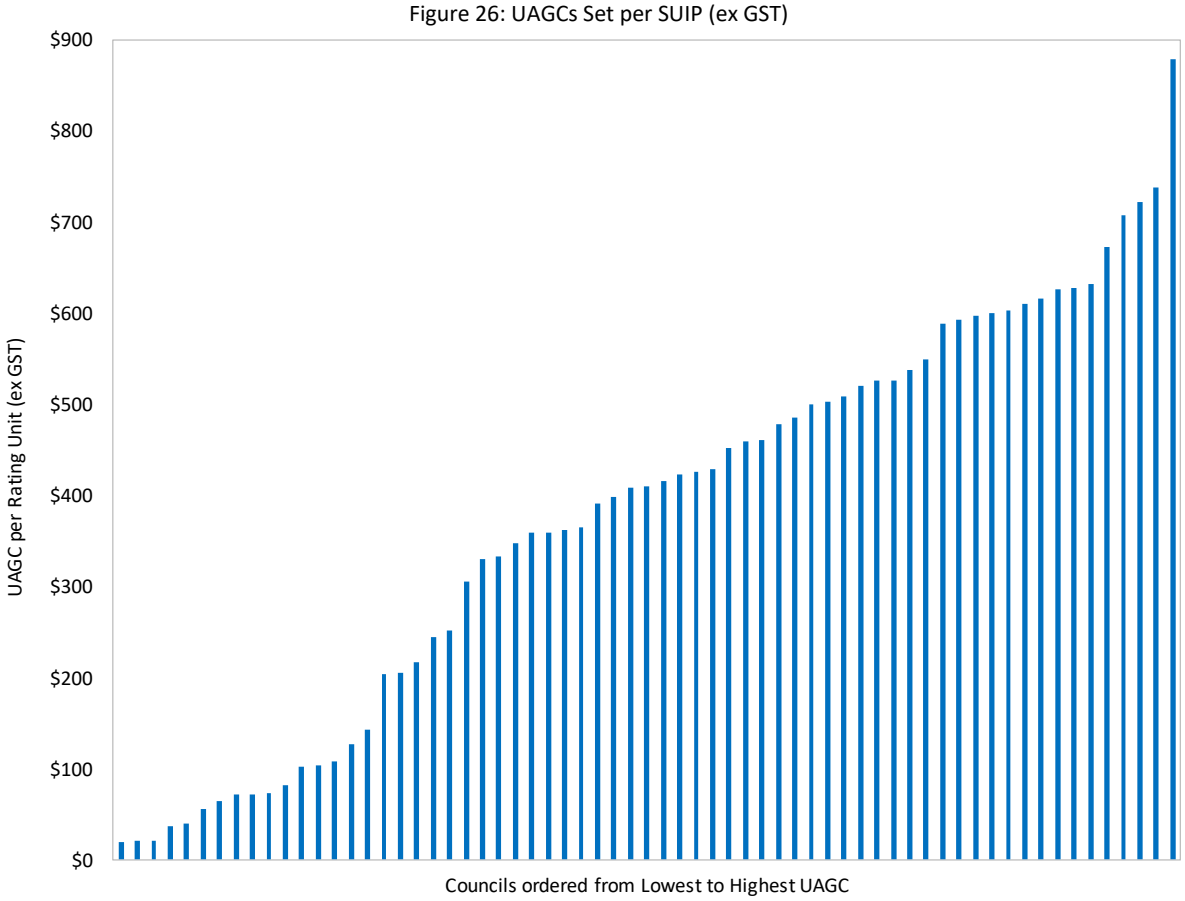
8.1. Number of Councils Setting UAGCs

In 2019, 83% of Councils (65 of 78) set a UAGC. By definition, all UAGCs are set on the basis of rating units (SUIPs), and apply to all rateable properties. There were some slight differences in the use of UAGCs across Council types, though, with only 67% of Unitary Councils setting them, compared to 83% for all other Councils.

8.2. Charges per SUIP

The price of UAGCs set per rating unit in 2019 varied markedly, ranging from just over $20 to nearly $880 per SUIP. The average across Councils that set a UAGC was $380, while the median was $410. Figure 26 plots the distribution of UAGCs set in 2019.

Figure 26: UAGCs Set per SUIP (ex GST)



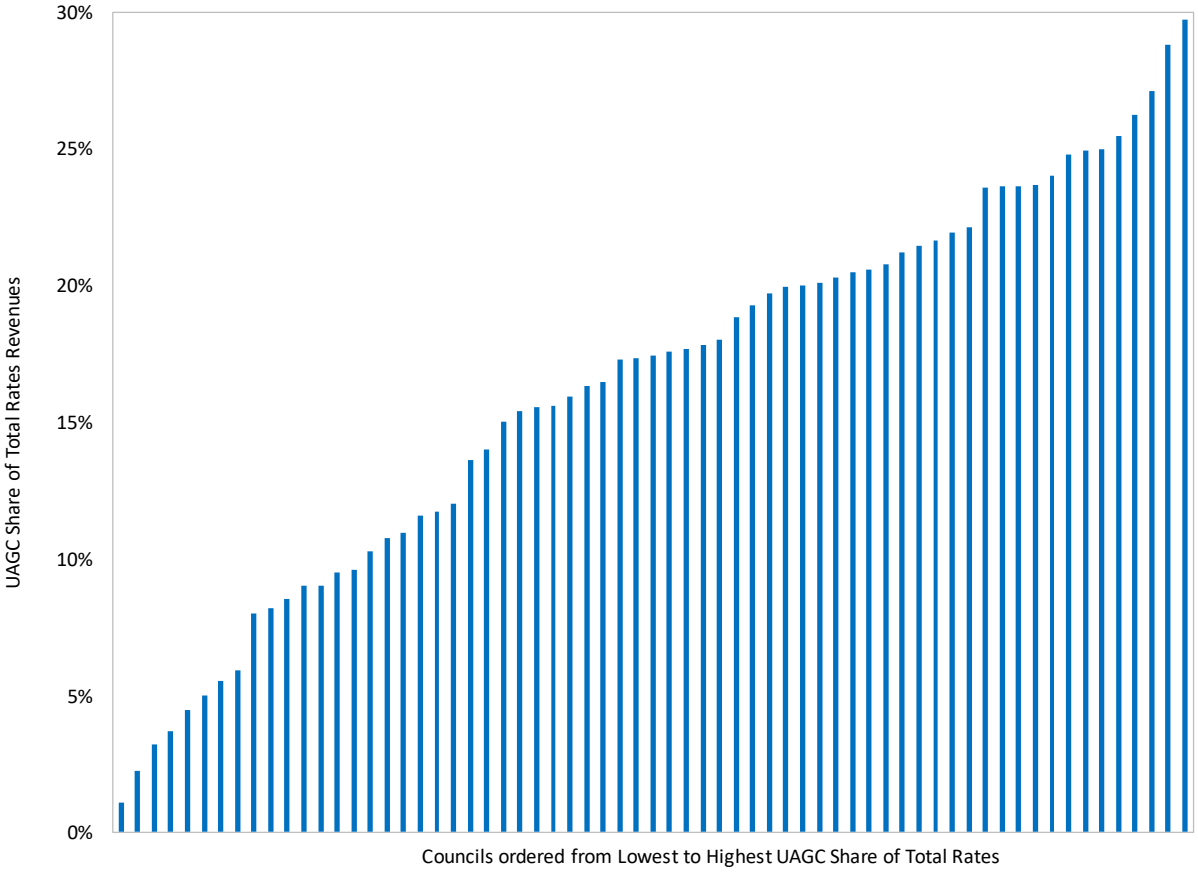
8.3. Total Funding Received

The amount of funds raised by UAGCs also varied significantly, due to differences in both the size of the charge, plus the number of rateable units in each Council area. Overall, nearly $676 million was raised via UAGCs in 2019, with an average of $10.4 million per council that set a UAGC.

8.4. Shares of Total Rates Funding

Overall, UAGCs accounted for 11% of total rates funding in 2019. However, the average across the 65 Councils that set a UAGC was 16%, while the median was 17%. Figure 27 plots the distribution.

Figure 27: Share of Total Rates Raised from UAGCs (for Councils that set a UAGC)

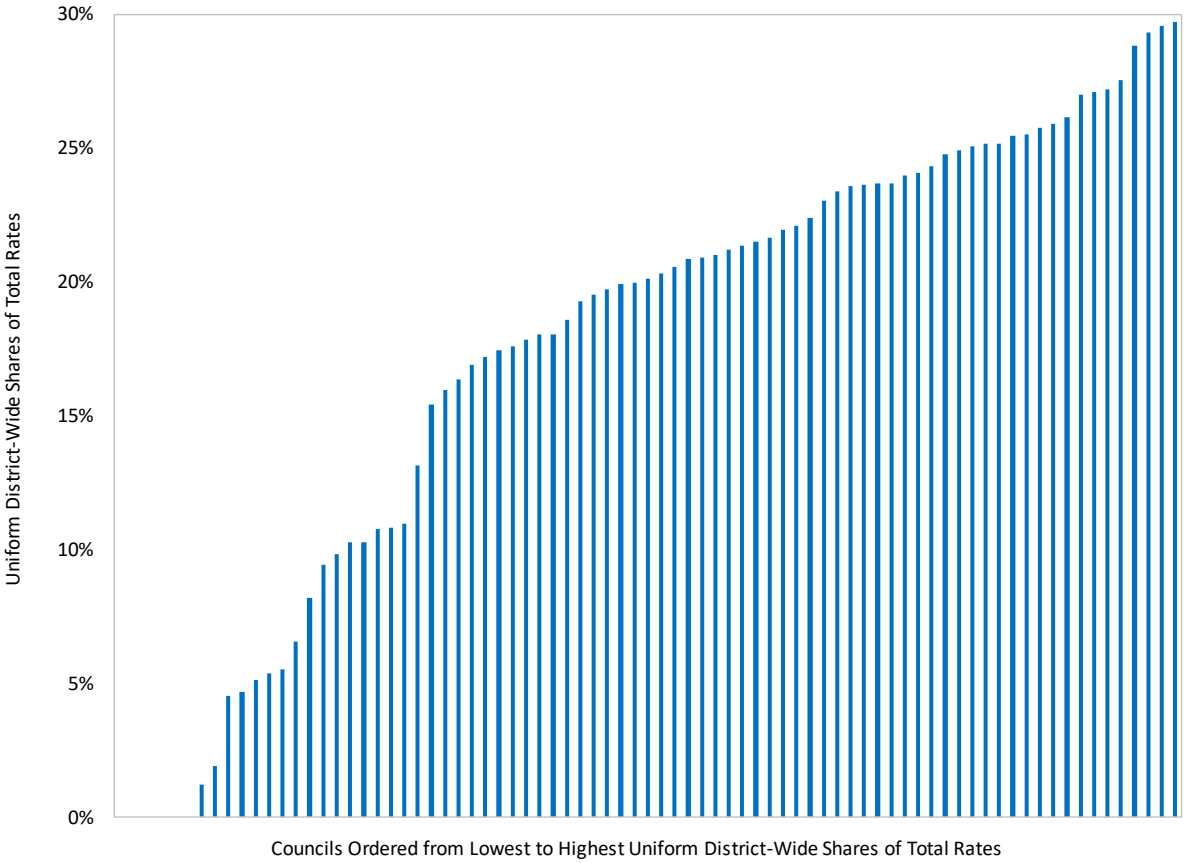


8.5. Reconciliation with 30% Cap on Uniform Charges

The definition of UAGCs provided in section 3.2 noted that Councils cannot raise more than 30% of their total rates from uniform, district-wide charges (including UAGCs). To examine the extent to which this cap is binding on Councils, we calculated the share of total rates that each raised from uniform, district-wide charges. The results are plotted in the chart below, and suggest that very few Councils are currently bound by the cap, with only four Councils being within one or two percentage points of it.

Overall, 14.5% of total rates raised in 2018/19 came from uniform charges, which is less than half the statutory cap.

Figure 28: Share of Total Rates Raised from District-Wide, Uniform Charges



8.6. Changes Over Time

As noted earlier, the number of Councils that set a UAGC has increased over time, up from 67% in 2003 to 82% in 2019. In addition, the number of Councils that raised more than 20% of their total rates from UAGCs has nearly doubled, up from 15% in 2003 to 28% in 2019. This is illustrated in Figure 29 and Figure 30.

The box and whisker plots are, again, informative. They show that the mean and median share of total rates raised from UAGCs has increased over time, with the median increasing quicker than the mean. This is because the median is not affected by outliers the same way that the mean is. It is also interesting to see that the lower quartile (which 25% of values are below) has increased from 0% in earlier years to approximately 5% now. This confirms that UAGCs are gradually becoming a more important source of rates funding than they were in the past.

Figure 29: Share of Councils Raising More than 20% of Total Rates from UAGCs

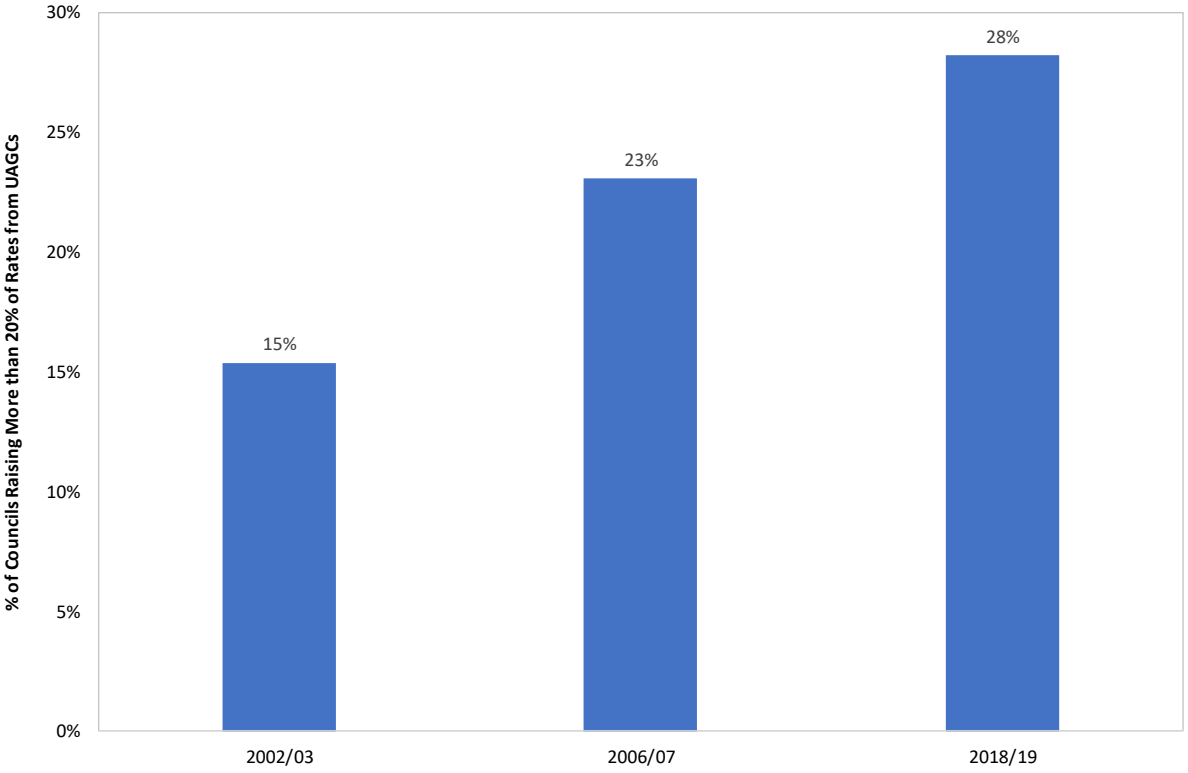
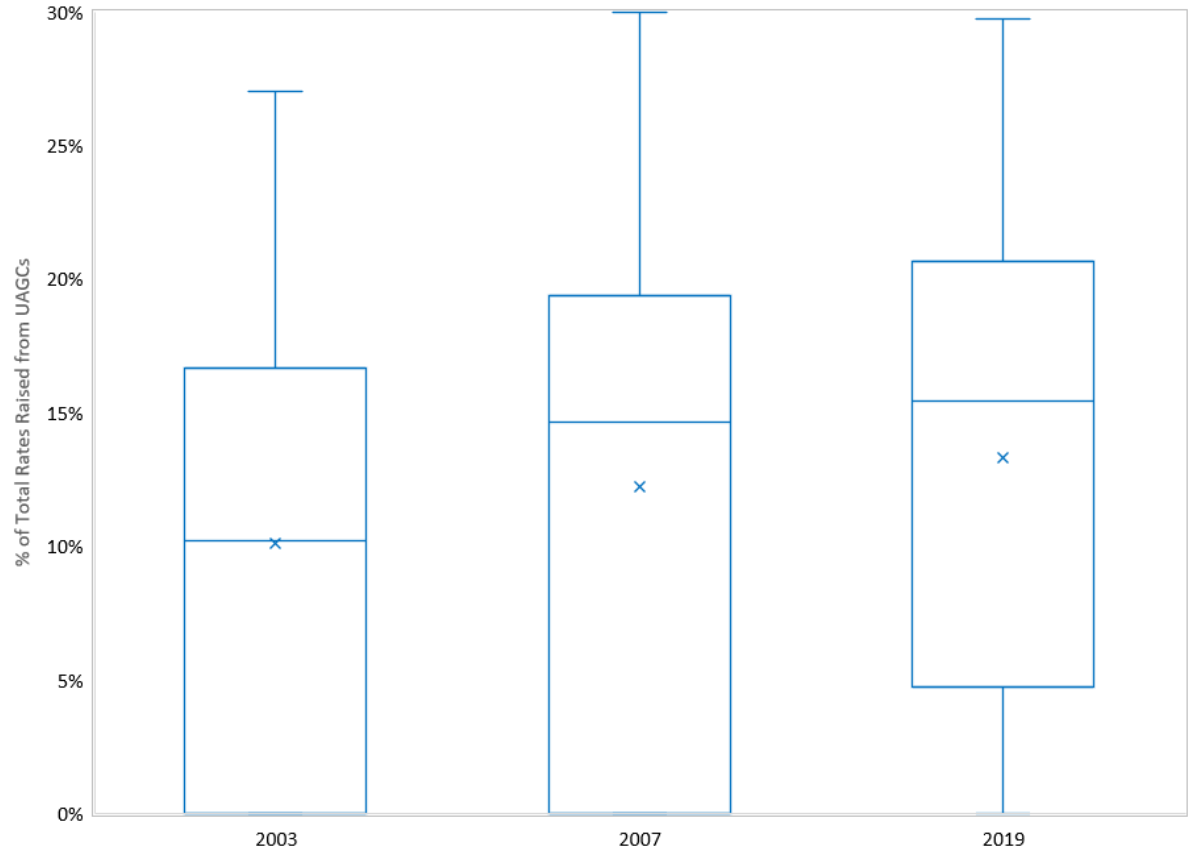


Figure 30: Box & Whisker Plot – Share of Total Rates Raised from UAGCs



9. Summary and Conclusions

This report has analysed the current and past use of Council rating tools in New Zealand. Overall, it has found that rates have continued to account for a fairly constant proportion of total operating funding since 2007, and hence that their importance as a funding source has changed relatively little over time.

The use of specific rating tools by Councils has changed since 2007, however. For example, the number of Councils with a UAGC has increased notably, while reliance on general rates has fallen considerably. At the same time, Councils are becoming more reliant on targeted rates, probably because they can provide a better match between funding paid and benefits received.

Another interesting trend is the gradual convergence of rating practice over time. For example, over 70% of Councils now set general rates on the same rating basis, and there is also much less variation in the reliance of Councils on each rating tool.

These general trends are likely to reflect various social, economic, political, and financial factors. However, they probably also reflect an increasing tendency for Councils to share information and learn from each other's experiences, which is likely to help improve the quality of financial decision making made by Councils over time.