THE UNIVERSITY OF NEWCASTLE AUSTRALIA

INSTITUTE FOR REGIONAL FUTURES

Federation Council

Capacity to Pay Report

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Disclaimer

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The University of Newcastle acknowledges the traditional custodians of the lands within our footprint areas: Awabakal, Darkinjung, Biripai, Worimi, Wonnarua, Gomeroi and Eora Nations.

We also pay respect to the wisdom of our Elders past, present and emerging.

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Executive Summary

This Report demonstrates that ratepayers at Federation would collectively need to pay just over thirty-nine percent in additional taxes to come up to the average tax take expected of a local government area with its particular socio-economic characteristics. Moreover, we show that this large deficiency in local government taxes paid has persisted for many years. Furthermore, there is a long record of past decision-makers realising the need to significantly increase rates. The delay in lifting rates up to the level typically paid by all other residents in NSW rural local governments has contributed to a serious financial predicament. It is now clear that much higher than typical rates will be required for the future.

In this report we also make some observations regarding distributive equity and suggest some measures that might be expected to mitigate matters a little for people at the lower end of the income spectrum.

1 Introduction

The purpose of local government – any government in fact – is to foster the common good (which is defined as the help accruing to people as a result of their co-operation; Drew, 2021). This means that local government ought to be mostly concerned with the provision of public goods, merit goods, and goods with externalities.[1] It thus comes as no surprise to find that the major portion of a local government's asset portfolio is dominated by public goods. Because these goods are non-excludable in character, fees and charges cannot be levied on them, and private business would never be interested in providing things of this kind. Indeed, commercial concepts make little sense when applied to matter of local government and it is important that people recognise that the processes, responsibilities and opportunities for government are fundamentally different.

To pay for the provision of public goods, governments are obliged to levy taxes, and local government rates represent an instantiation of same. Otherwise stated, local government rates are indeed a tax. Natural law philosophers have long recognised that taxes are a moral obligation on citizens flowing from their membership within a community (George, 2010; Drew, 2021). Other philosophers have conceived of taxes as a form of charity – especially when they are used to provide essential public goods or merit goods, or used for redistributive purposes (Messner, 1952). Taxes are also a pre-requisite for natural justice – because we all have a natural right to land and other resources that were part of creation (see Finnis, 1998). Indeed, land ownership is a relatively modern concept useful for the optimal economic use of this particular resource, but *not* a moral right (for instance, one could hardly mount a moral claim to the use of other natural resources such as oxygen or sunlight). Thus, an unimproved tax is a critical component of natural justice – it allows everyone to derive some benefit from a natural resource bestowed on all of humanity.

Indeed, the greatest proponent of unimproved land tax was a natural law philosopher called Henry George (2010) who proposed it as a single tax in his work *Progress and Poverty* published circa 1879. The idea here is to try to capture some of the unearned wealth created as a side-product of the unnatural human advent of land ownership. George argued that the value of land was likely to go up even if a person did nothing to it – because of the increase in population, new developments in the area, building of new transport links and the like. Thus, most of the increase in wealth accruing to an individual, because of their ownership of land, is actually derived from the efforts of others. In an unimproved land tax, we simply ask people to return a very small portion of their unearned wealth to the wider community who created the wealth. Indeed, local government taxes tend to be used for goods and services that generate even more unearned wealth for the landholder – thus payment of rates can hardly be thought of as an act of altruism.

Unlike other taxes, rates do not impact on wealth generated by a person's own efforts, nor do they have the same kind of distortionary influence on economic decision-making. For instance, the current top marginal income tax rate for Australians is forty-five percent and this heavy impost tends to be a disincentive to some to put their productive efforts into full use (through making investments, taking on additional work, or further developing their human capital). Indeed, there is a whole industry devoted to providing ways for people to minimise their tax burden and this, for the most part, represents a loss to the productive economy. An unimproved land tax does not result in leakage from the economy, of this kind,

[1] Public goods are things that are both non-excludable and non-rival (one person's use doesn't really prevent another from using it – example, local roads). Merit goods are things that we feel it is important for people to consume, because they are considered virtuous in nature (for instance, public libraries for reading). Goods with externalities are those that create benefits for people beyond the consumer (for example, rubbish collection which eliminates a wider risk to public health).

and doesn't dissuade people from making productive economic decisions – indeed, it elicits the precise opposite because it encourages people to put their land to the most productive use (to minimise the nett burden). Thus, an unimproved land tax might encourage people to put vacant land under cultivation, or to sell it so that people might build homes on it.

People should understand that an unimproved land tax is one of the most morally defensible ways to generate the revenue required for governments to provide the goods and services that we all use, and rely on, on a daily basis. As an aside, people advocating for capital improved land tax (CIV, whereby the value of the land and all the improvements made by the landowner – such as building houses and the like – are taxed) are clearly unaware of the moral imperative, and also rather confused about the practicality and effect of implementing CIV in rural areas.

Unfortunately, the efficacy of an unimproved land tax has been significantly damaged by constraints placed on local government decision-makers. For instance, higher tier governments have introduced rate caps which mean that the value of the total tax levied by local governments has not been able to keep pace with the increase in unearned wealth accruing to landholders. This has resulted in both fiscal distress and exacerbation of inequality (especially with respect to people who don't possess land). Unfortunately, rate caps are a politically attractive heresthetic whereby state politicians get to claim credit for reducing cost of living pressures, without suffering any ill-effects on their own (state government) budgets. Hence rate caps are popular with state politicians and are slowly spreading across our continent – as are the blame games associated with same.

Indeed, local government rates are highly politicised. Not only are state politicians inclined to engage in rate capping and misleading rhetoric to divert attention from their own tax increases and financial sustainability predicament, but rate increases are also politicised at the local level. No-one likes paying extra tax and it is thus hardly surprising that political opponents will try to portray rate increases – especially special rate variations (SRVs) – as unnecessary, the result of inefficiency, or the outcome of financial mismanagement. Claims of these kinds are popular with people hoping to avoid paying a fuller[2] price for the public goods and services that the community relies on. However, as I have shown in my previous work – and will also highlight in the four reports required for this SRV – the claims are mostly misleading (and sadly have a high potential to inflict pain on the most vulnerable in the community).

For good decision-making, claims need to be based on robust evidence. Citizens should be wary of anyone in the community who tries to portray a picture of matters that is not supported by sophisticated robust evidence. Indeed, citizens should also be cognisant of the motivations of the people making various statements – both their *bona fides* and independence. That is why a report by three independent professors – two of which reside abroad and therefore can't reasonably be accused of bias – is so critical to the Federation SRV debate. The bona fides of these people can easily be assured by looking at their scholarly records and the sophisticated empirical techniques which we employ are beyond reasonable critique.

One reason why rates tend to get politicised is because they are probably the most visible of taxes. This visibility arises because councils typically issue four tax invoices per annum, and people have to withdraw money from their savings accounts to meet same. This state of affairs contrasts somewhat to the hefty income taxes that most of us pay which are taken out of our pay before we even see the money. Rates also

[2] The truth of the matter is that rates are typically less than a third of local government revenue – fees and charges, as well as grants, account for the majority of cash flow. Indeed, for the last two financial years rates accounted for less than sixteen percent of the total revenue accruing to Federation Council.

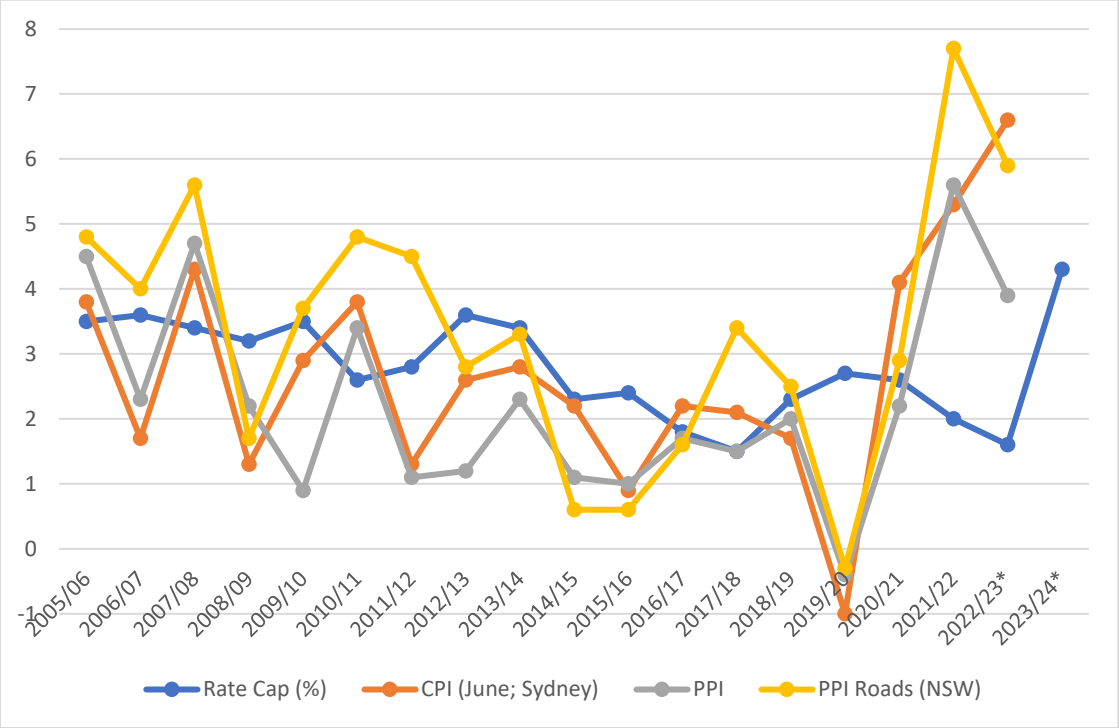
contrast to the ten percent GST which typically dwarfs the annual impost made by local government (on residential ratepayers) and gets tacked onto just about everything we buy.

Indeed, both state and federal taxes have been rising at astounding rates in recent years as attested to by the Australian Bureau of Statistics' (2024) *Government Finance Statistics*. Income tax has risen in real terms in response to both inflation and wage increases – exacerbated by bracket creep. GST has increased broadly in line with inflation (because the tax is calculated according to the nominal value of the good). For the last financial year, consumer price inflation for Sydney was 6.6%, the year prior, 5.3%. Yet few people seem to have objected to the tax increases effectively levied by these tiers (which also includes stamp duty which has gone up by far more than either of the aforementioned examples).

It is inevitable that taxes will go up because the price of the goods and wages that governments consume have gone up. People – and some regulatory agencies – tend to get confused on this matter because they are apt to compare prices to the consumer price index (CPI). However, CPI – by ABS definition – is clearly meant to measure the change in the price of a basket of goods and services purchased by *households*. Governments don't purchase popcorn and movie tickets – nor do they pay school fees. It is thus erroneous to use CPI when trying to gauge the cost pressures faced by local government.

In Figure 1, below, we set out the rate cap against various more accurate measures of the cost pressures felt by government. PPI is the producer price index and measures a basket of goods and services purchased by producers (businesses). Even more specific, we include the PPI for road construction – which reflects the single largest responsibility of local governments in the state. Even a cursory look at this graph will reveal why more and more local governments have been forced to apply to IPART for a SRV in recent years. We concede that Federation has been allowed increases above the cap in recent years, but this does not detract from the observation that the rate cap has exerted a cumulative deleterious effect on financial sustainability over a long time. Moreover, as we will show later in this report, Federation rates have lagged the typical impost expected for a council of this particular socio-demographic, and the recognition of the need for a SRV goes back decades.

Figure 1: The Rate Cap Compared to Various Measures of Inflation



If local government revenue does not keep pace with the increases faced in expenditure, a number of things will ineluctably result. Over time, deficits will emerge and widen. These deficits will result in higher debts – either explicit debts, or implicit debts. Explicit debts are loans at banks and the like that are reported uncontestably in financial statements. Implicit debts are reductions to maintenance and construction of needed assets that are generally poorly measured and disclosed. From an economic perspective there is little difference between an explicit debt, on the one hand, and an implicit debt, on the other. Indeed, in the case of postponed road maintenance, implicit debts are far worse than explicit ones – if road surfaces are not maintained properly the whole road foundation will ultimately need to be rebuilt at a cost which is generally eight hundred percent or more higher than the cost to have merely resealed the surface in a timely manner. There is good reason to think that Federation council has a high burden of implicit liabilities[3], and it would thus be prudent to redress these as quickly as possible.

If revenue insufficiency is allowed to persist matters become significantly worse, as cumulative effects are largely compounding. Redressing financial unsustainability is thus an economic imperative. However, it is also a moral imperative – because financial unsustainability ultimately translates into intergenerational inequity. Otherwise stated, it is our children and grandchildren who will have to pay off the debt. When debt has been incurred to effectively fund current consumption (because of the fungibility of public finance) then forcing a future group of people to pay for it becomes morally indefensible.

Arresting a descent into extreme levels of financial unsustainability is an imperative from a local democracy perspective. The state government has not hesitated to dismiss councils and suspend local democracy in cases of perceived financial unsustainability in the past. For instance, Central Darling Shire was placed into Administration in December 2013 and continues to be denied democratic representation to this day (Drew and Campbell, 2016). We are not suggesting that this kind of intervention is imminent at

[3] As part of our work, we have conducted a sample audit of the road conditions and compared these to extant accounting records. Our results suggest that the cost of outstanding maintenance might be as much as twenty percent higher than was recorded last year in the audited financial statements. Notably, this discordance was far less than we have observed at other local government areas where we have conducted this exercise.

Federation – but the stark reality is that precedent suggests it as a possibility at some time, if redress is not made. As we have detailed in other work, some of the problems at Federation can clearly be traced back to decisions made by the Administrator appointed following amalgamation – and residents may thus feel that it would be advisable to act prudently to avoid any possibility of a repeat of this.

Before ending this section, a word is in order about the widespread confusion regarding the species of taxation stipulated in the Local Government Act (1993, NSW). For good moral reasons we use unimproved land value, which effectively results in people returning a tiny fraction of their unearned wealth back to the community. However, rates are paid out of incomes. If people fail to extract sufficient income from their land or other activities, then hardship may result. This is why Council has a hardship policy which responds to provisions in the Act (1993, NSW). It must be understood that the far majority of taxes in Australia (except income taxes, of course) don't correlate well with individual capacity to pay – indeed, they are far worse. To name just a few – the GST, the alcohol tax, and the fuel tax. These taxes don't vary with incomes: a homeless person pays precisely the same ten percent on their food, as does a multi-billionaire; a struggling family pays the same 49.6 cents per litre for their fuel as does the person driving a Rolls Royce (although the person driving the Tesla might pay nothing). This is the nature of most taxes – and local government 'rates' are almost unique in trying to respond, at least a little, to potential hardship. Trying to tailor local government taxes to the specific capacity to pay of particular individuals would be impossible in a land-based tax, and (were it even possible) would unfairly result in some people being allowed to keep far more of their unearned wealth than others (please see: https://www.youtube.com/watch?v=FQrMoVOt8rE)

In the next section of this report, we will review comparative measures of capacity to pay that are typically (and often erroneously) used by councils applying for SRVs. Many of these measures are in-advisably required according to Office of Local Government (OLG) guidelines. Following this, we will turn our focus on residential rate specific indicators, business indicators, and farm specific indicators respectively. Thereafter we present an econometric exercise which is far superior to all other potential methods. This allows us to provide a precise figure for the typical tax take expected of a local government area with Federation's specific socio-economic characteristics. We then explore previous SRV proposals, before enumerating a number of measures that might be taken to enhance capacity to pay.

2 Overview of Rates at Council and its Peers

The first portion of this report presents the graphs required by OLG guidelines, as well as some additional metrics which provide important context. For these comparative exercises we have used a peer group comprised of other councils in the same OLG category, notwithstanding the scholarly evidence that extant methods of categorisation could be significantly improved. In Table1 we list the councils used in comparative work.

Table 1: Peers Used for Graphical Comparisons

Bellingen	Cabonne	Cootamundra-Gundagai
Cowra	Greater Hume	Gunnedah
Inverell	Leeton	Moree Plains
Murray River	Nambucca Valley	Parkes
Snowy Valley		

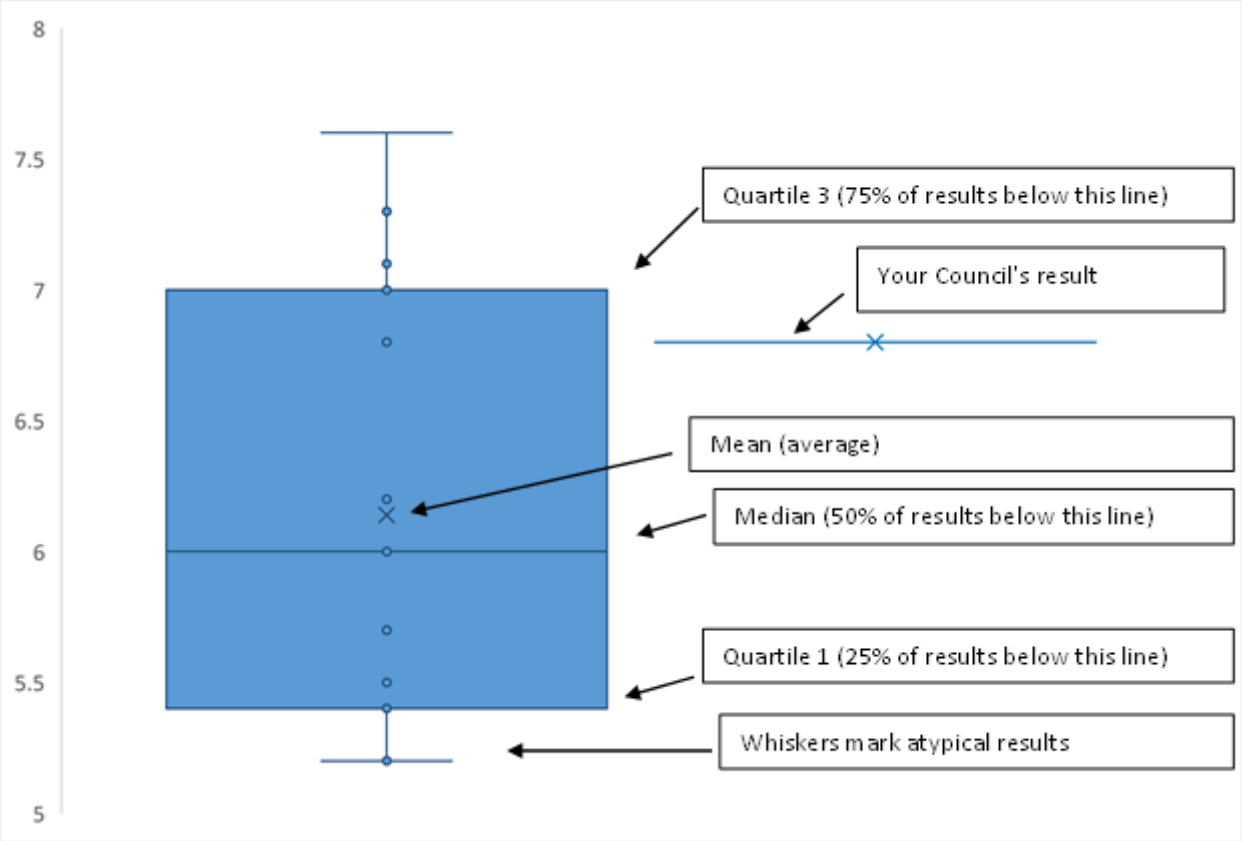
People will always be inclined to argue that a particular comparator group may not be ideal, or that certain councils should be substituted with others. For this reason – and also because of the serious flaws in the metrics and statistics mandated by the OLG – the greatest reliance should be placed on the econometric exercises that form the centrepiece of this report.

Econometrics is far superior because it allows us to better accommodate all of the variables related to capacity to pay, and also make *ceteris paribus*[4] claims. Moreover, our econometric exercises include the entire cohort of rural councils for NSW, over a long panel of five years of data. Broadening the cohort means that there can be no reasonable disagreement about comparators; whilst employing a five-year panel of data means that we will not be misled by unrepresentative years.

The best way to present graphical data for comparative purposes are box and whisker plots that have been part of the core mathematics curriculum for a few decades now. These graphs are particularly helpful because we can quickly perceive how Federation's results compare to typical outcomes, but also the spread of outcomes experienced by the relevant cohort. In case readers have forgotten how to read a box and whisker plot, we have provided a ready reckoner in Figure 2 below. Box and whisker plots used in this report usually span a period of four years.

[4] That is, holding all other factors constant – these are the kinds of claims that are consistent with the scientific method of reasoning.

Figure 2: Interpreting Box and Whisker Plots



In Table 2 we set out the current rate structure at Federation as per the relevant Revenue Policy.

Table 2: Ordinary Rate Structure 2024/25

Council	Residential Rate	Farm Business Rate	Non-Farm Business Rate
Federation	0.2839 ad valorem, plus base rate of $425	0.1461 ad valorem, plus base rate of $425	0.6145 ad valorem, plus base rate of $425

We remind readers that rates are a tax based on unimproved land value. Furthermore, the idea of the tax is to recover a small portion of the unearned wealth accruing to landowners and return it to the community from whence it mostly came. We also remind residents that taxes are not a fee for service – sometimes people erroneously argue that certain ratepayers should pay a lower proportion of tax because they don't receive the same services as ratepayers elsewhere in the local government area. This is a spurious argument, and one can quickly see its fallacious logic if one tries to universalise the idea.[5]

[5] According to the philosopher Grimm, a good way to test reasoning is to try to apply the same ideas to different contexts or take them to the extreme cases. If we applied the aforementioned reasoning to federal income taxes, then it would suggest that almost no federal money ought to be spent in Federation – because the majority of federal taxes are paid in the capital cities. We don't think people in receipt of federal pensions, or those who use federal agencies and federal roads would be happy if this kind of reasoning was applied in a federal tax context. It is not reasonable to advocate a warrant (a principle that gets us from data to a conclusion) that cannot be applied to similar situations.

An important concept in taxation theory is distributive equity. The idea is that the burdens of paying for government goods and services should be fairly distributed. Notably, this is a concept quite distinct from capacity to pay.

It is clear from Table 2 that there is a lack of distributive equity in Federation's rate system (as readers will see later, this is a feature of most rural councils). Usually, distributive inequality will have arisen over time due to misapprehensions about the distinction between capacity to pay and distributive equity, as well as deeply embedded erroneous conceptions of rates as fee for service. Residential ratepayers are paying almost two-thirds more cents in the dollar for their land as do farm business owners. Non-farm business owners are paying almost three times the rate in the dollar as farm business landowners. Furthermore, it is a fact that most farm and non-farm business owners will get to export some of their rates to the federal government as a tax deduction, whereas most residential landowners cannot do so (an exception are rental landlords). Thus, the effective local government rate for farm and business ratepayers is considerably less than the numbers presented in the aforementioned table might at first imply.

It is important to resist reading more into these observations than might be warranted. We are not suggesting that the rates of taxation ought to be precisely the same. Nor are we stating that extant practice at Federation is somehow 'wrong'. Nonetheless the data certainly indicates that there may be room for improvement with respect to distributive equity. Accordingly, we recommend that the matter should be investigated, but note that doing so might take a year or more because of the need to properly canvass and evaluate the arguments of stakeholders.

Recommendation 1: *That the General Manager be tasked with further exploring the distributive equity at Federation Council.*

Of further concern is the use of base rates at Federation. People frequently appeal to the benefits of a base rate in mitigating fluctuations (especially after new valuations come to hand) and also for 'flattening' out the tax impost. However, to achieve these objectives a base rate shifts the burden of taxation from the people with the highest land values to the people with the lowest land values. All things being equal, increase in unearned wealth is likely to be highly correlated to land values. Therefore, a base rate typically results in the burden of taxation being shifted from people who had the most unearned wealth to the people who had the least.

Moreover, a base rate that is an arbitrary number is impossible to defend on either moral or economic grounds. It also fails to send important price signals. For this reason, Drew (2021) recommends that base rates ought to be calculated annually with respect to a shared responsibility – such as the overheads for having a council. Doing so is more morally defensible – because everyone has the same basic needs for a representative council – but also sends important signals about both the costs of having a council and the change in costs over time.

One of the biggest measures a council can take to mitigate capacity to pay concerns is to reduce or eliminate the base rate.

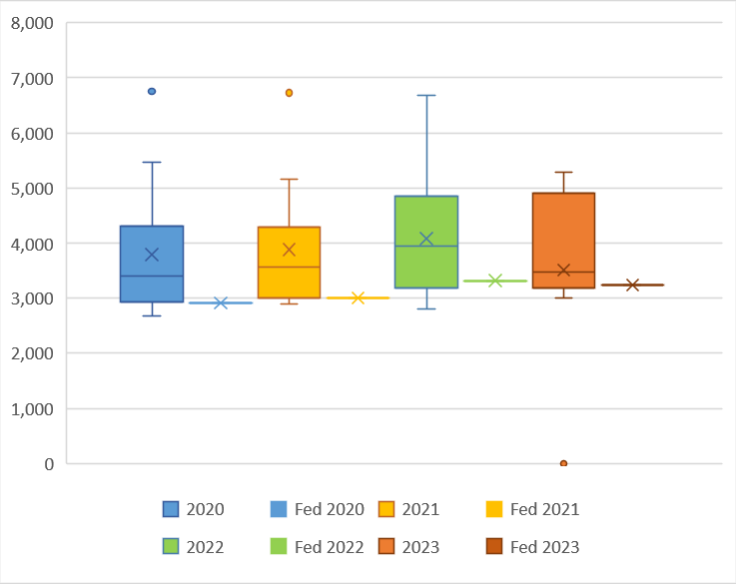
Recommendation 2: *Council should review the base rate with a view to either eliminating it entirely or linking it to a specified set of council overhead costs to be calculated annually. Ideally, a decision on this matter should be taken as soon as practicable.*

OLG guidelines require us to compare average rates for the council and various categories against putatively similar peer councils. As we will demonstrate throughout this report, this directive is ill-advised and can only result in spurious conclusions. Indeed, we note from our previous engagement with the

community that this is precisely what eventuated from the earlier work done in Federation's last SRV application.

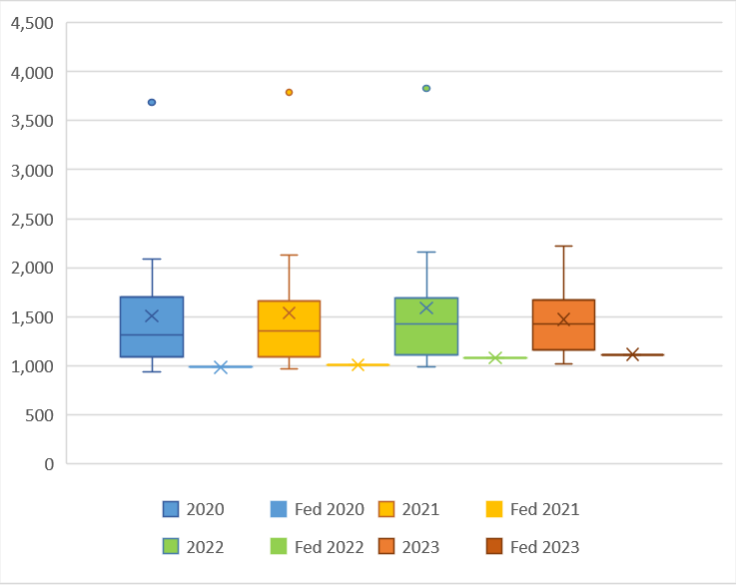
In Figure 3 we provide a comparison of rates, fees and annual charges at Federation relative to the peer group. Some people feel that it is important to go beyond the OLG guidelines and broaden the consideration to fees and charges also, as these clearly impact on capacity to pay. The graphs suggest that Federation typically levies rates and charges close to the bottom quartile (lowest twenty-five percent of councils) with respect to the peer group. Notably, in a relative sense the distance from Federation to the typical peer (as measured by either the mean or median) has closed in the most recent year – partly in response to the recent temporary SRV increase, but also due to lower charge take in the other councils.

Figure 3: Rates, Fees and Annual Charges per Assessment



In Figure 4, we look at just the average rates on a per property assessment basis. This graph suggests that Federation is firmly in the bottom quartile of the comparison cohort.

Figure 4: Total Rates per Property Assessment



In Figure 5 we perceive a similar result for average residential rates.

Figure 5: Average Residential Rates per Assessment ($)

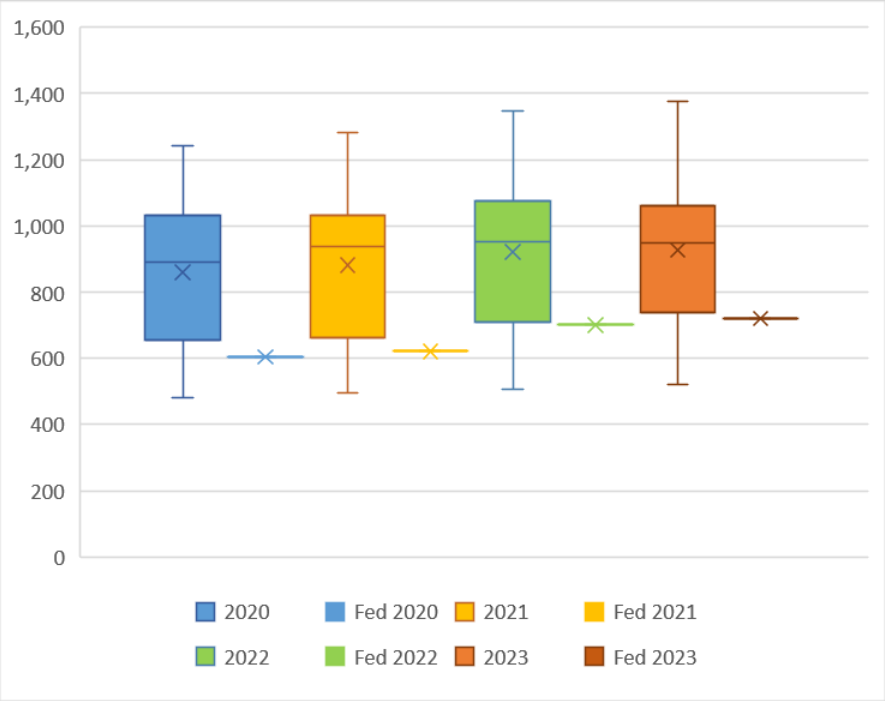
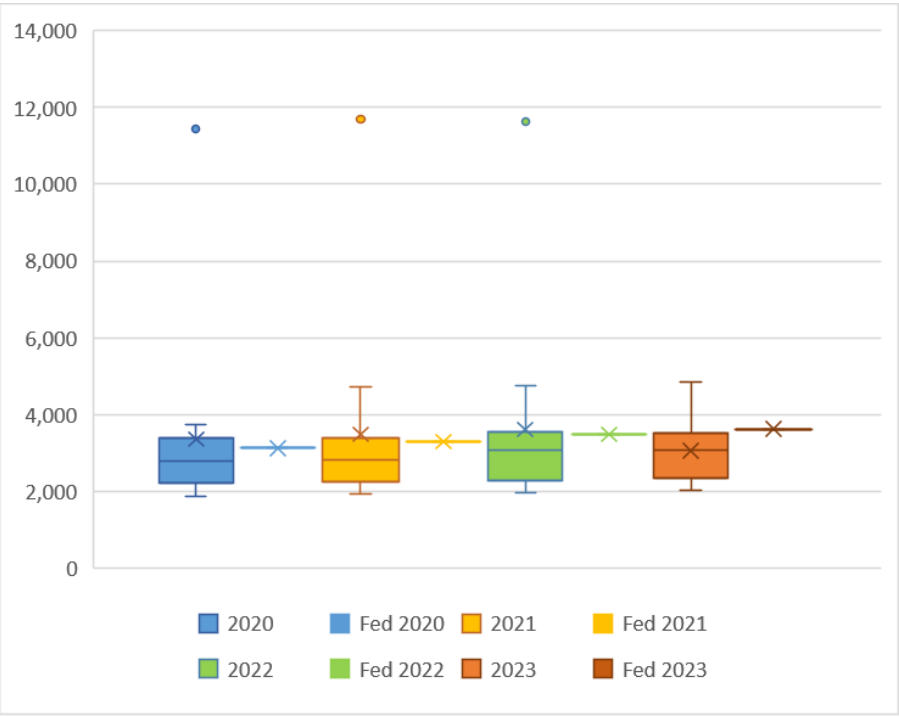


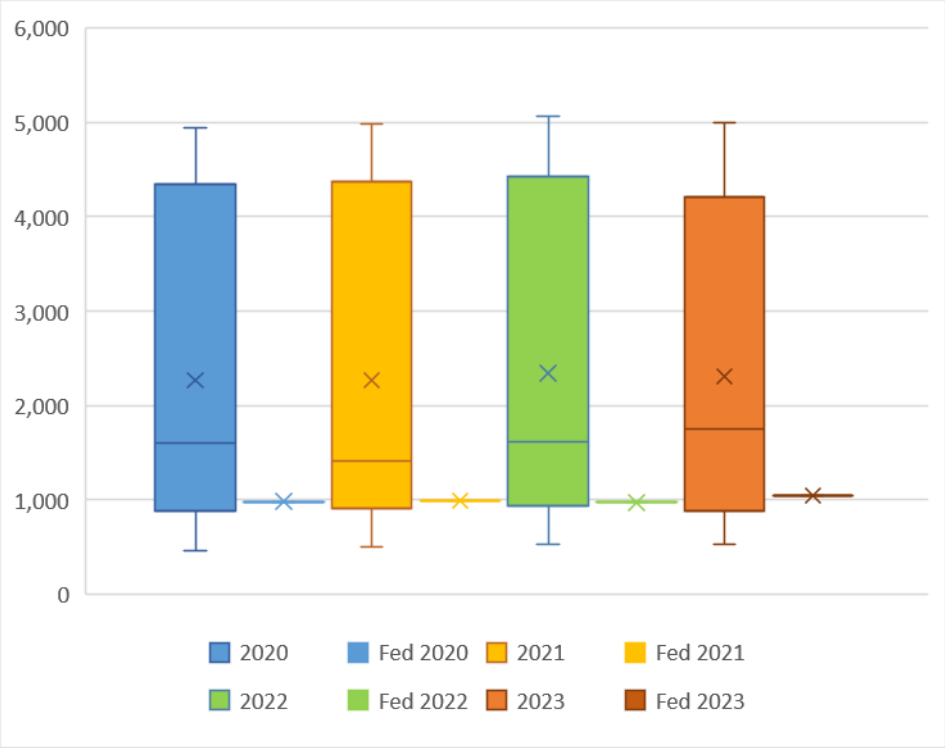
Figure 6 is a good example of the extremely misleading conclusions that will be formed when people look at the ill-advised summary statistics required by the OLG. It suggests that farmers in Federation are paying far over the odds with respect to their rates – indeed in the top quartile of the comparison cohort. As we will see later in this report – with respect to skewing of land value and revenue effort calculations – this conclusion couldn't be further from the truth. We thus encourage authorities to change their guidelines to better reflect basic statistical facts.

Figure 6: Average Farm Rates per Assessment ($)



The non-farm businesses, by way of contrast, appear to be paying a relatively low level of local government taxation, at least according to this metric.

Figure 7: Average Business Rates per Assessment ($)



Part of the reason why the aforementioned graphs are so misleading goes back to the basic characteristics of the statistics chosen by the OLG for comparison. The mean, or average, is the sum of all the relevant data points divided by the number of data points. It is a mathematical fact that means are very susceptible to skewing by unusually small numbers or unusually large numbers. This is a big problem if we think that the mean is giving us an indication of the typical outcome. For instance, consider the following array:

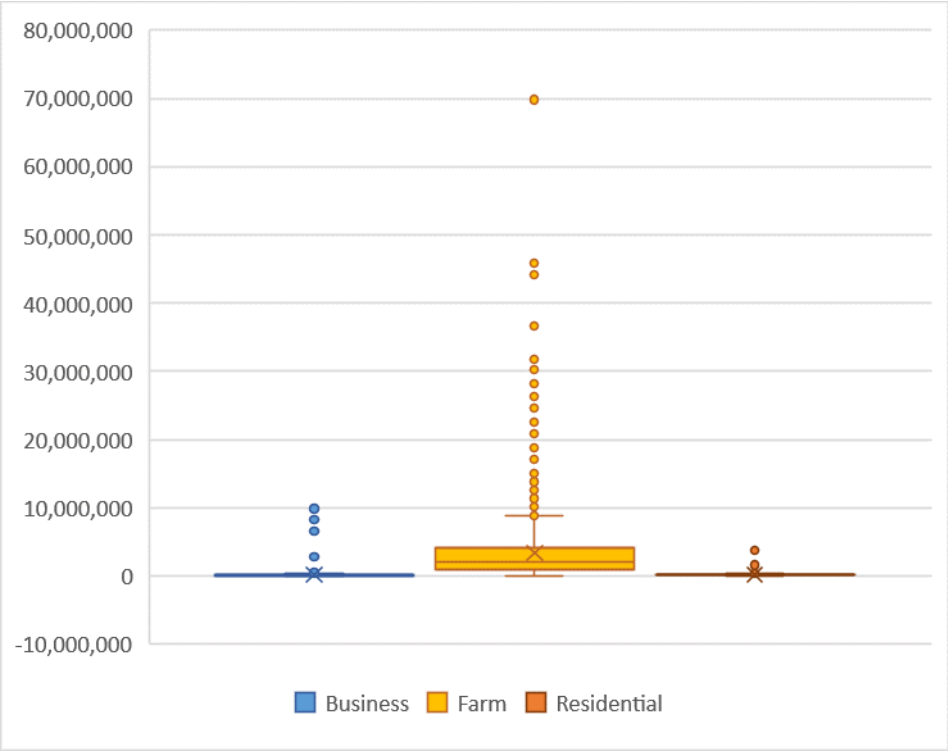
1, 2, 2, 3, 117

In this case the mean is 25. Would anyone seriously suggest that this is a good measure of the typical result? For this reason, statisticians insist that measures of central tendency must be considered in concert with measures of spread (such as the inter quartile range represented by the coloured rectangles in our box and whisker plots) and also with respect to the median. For skewed data the median (middle number when values are put into ascending order) is generally more reliable than the mean.

Comparing average rates between councils is a very bad idea because there is skewing both within particular categories, and also between them in a given local government area. Comparing significantly distorted data from one council to another is an exercise in futility.

To illustrate the point, examine Figure 8 which is a graph of the land values from the most recent Valuer General report for Federation Council. As can be quickly seen there is a large disparity in land values between the various categories of rate payers. There is also a large number of extreme outliers (represented by the dots). Otherwise stated, the data is heavily skewed to the right and the mean is thus pretty meaningless. Indeed, the data range for land value spans from just $160 through to an astounding $69,800,000.

Figure 8: Skewed Data – Ratepayer Category Comparison



Matters are made even more stark when we consider the large degree of skewing present in each category, as illustrated in Figures 9-11.

Figure 9: Skewing in Business Land Values

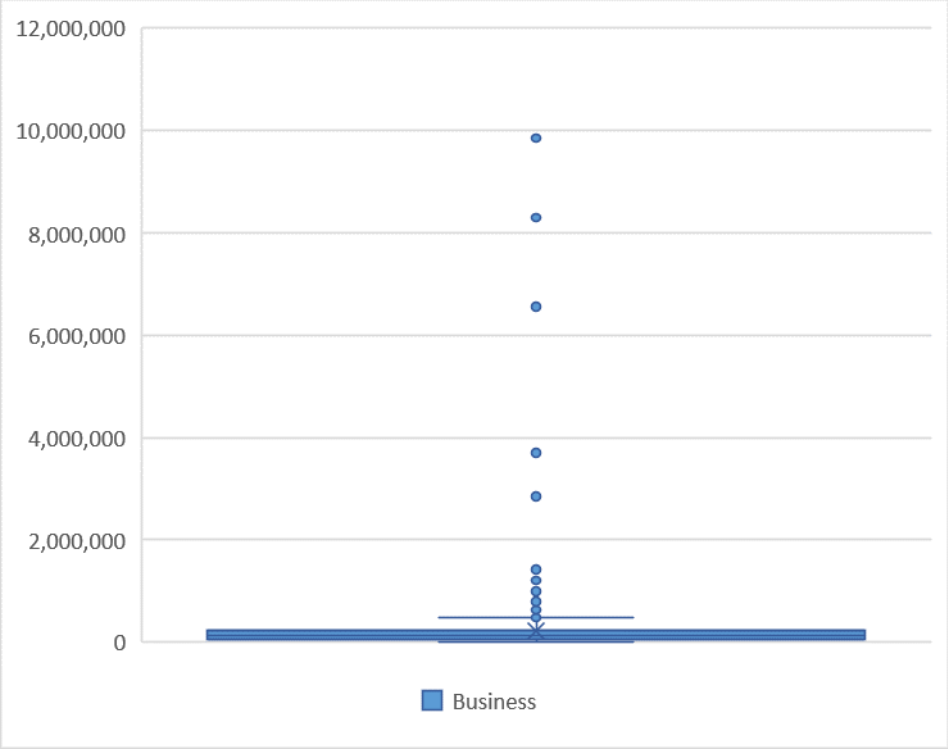


Figure 10: Skewing in Farm Business Land Values

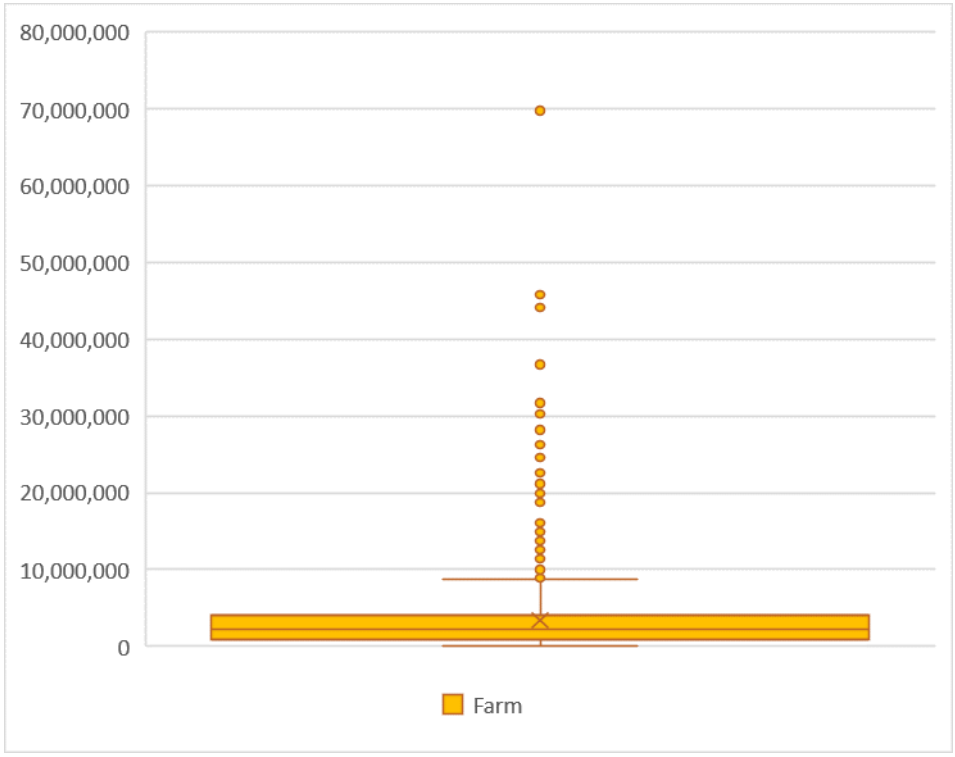
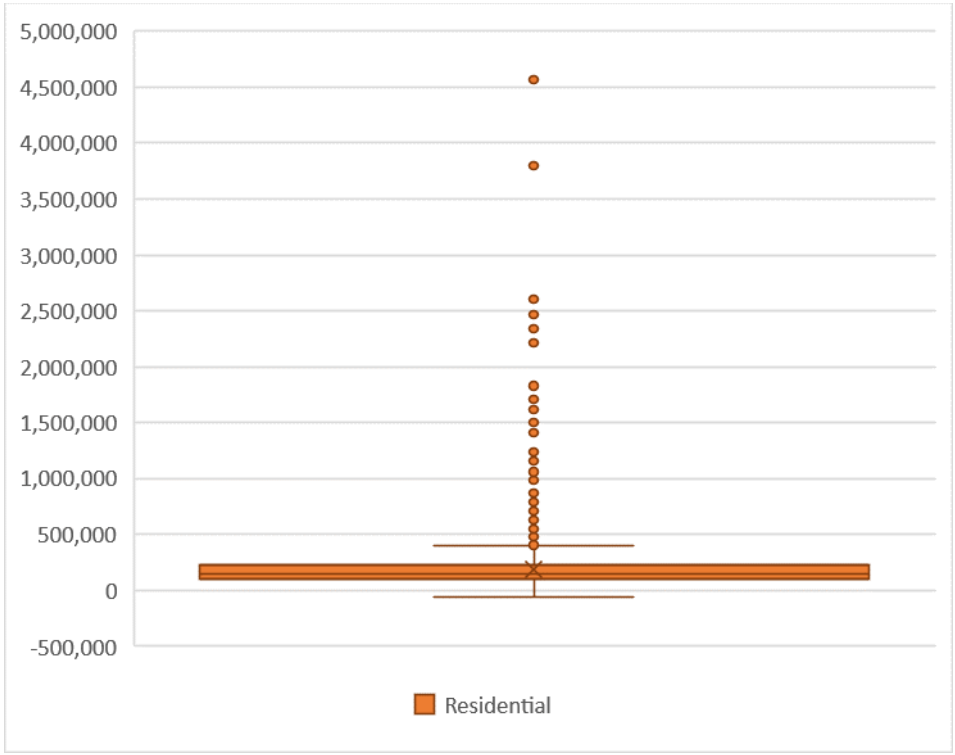


Figure 11: Skewing in Residential Land Values

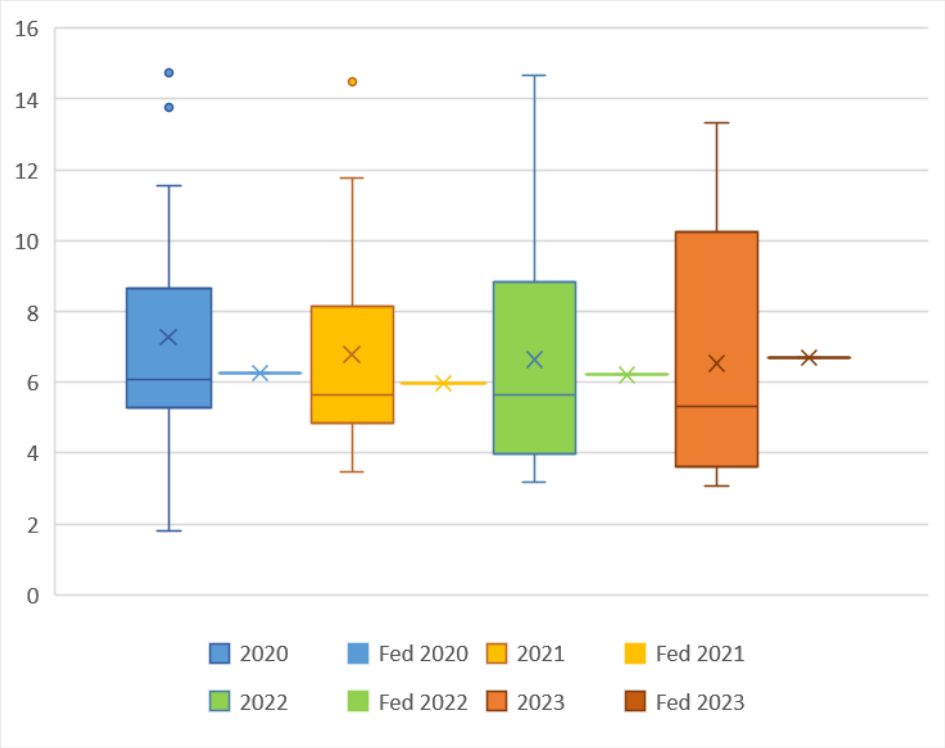


In sum, because of significant distortion due to skewing of data, comparison of average rates is not reasonable. One only has to consider the large disparity in values between, say, Morundah and Mulwala, or the huge difference in the size of various farms, to see that this is a very bad idea. It is an even worse idea to compare distorted measures of central tendency in Federation to distorted measures of central tendency in the other councils. Most rural councils are characterised by extremely skewed distributions of land values, and it is thus not a sensible approach to the matter at all.

Furthermore, rates are paid out of incomes and the earlier comparisons implicitly, and implausibly, assume that incomes are either consistent across councils, or are somehow inconsequential.

Before closing this section there are two further pieces of information that warrant attention. In Figure 12 we illustrate rates and fees outstanding. Some caution needs to be taken with respect to this data because of both the uneven effects of the coronavirus disruption, and also differentiated recovery efforts. However, the data does suggest that Federation is pretty typical of the cohort in this domain in most years.

Figure 12: Rates and Charges Outstanding



Another interesting thing to consider is the tax in the dollar levied by various nearby peer councils. Unfortunately, this data is often difficult to come by – the documents are either not available on the websites, or councils ignore requests for data. Moreover, the vast array of subcategories, and different approaches to minimum rates and base rates further confounds the kind of comparison that might yield value. In addition, as noted earlier, when it comes to capacity to pay, it is necessary to consider rates of taxation with respect to the incomes accruing to individuals required to pay the tax (this is called revenue effort, and we will review some data on this later). Furthermore, readers should remember that the tax is supposed to be incident on the portion of unearned wealth arising from increases in land values – without this data it would be unwise to try to form definitive deductions.

Table 3: A Limited Comparison of Rate Structures in the Peer Group (2022/2023)

Council	Residential Rate	Farm Business Rate	Non-Farm Business Rate
Federation	0.3760 plus base rate of $357.00	0.2218 plus base rate of $357	0.6434 plus base rate of $357
Greater Hume	Requested		
Murray River	0.2905 plus base rate of $300	0.2248 plus base rate of $300	0.300 plus base rate of $300
Cootamundra-Gundagai	0.39883 plus base rate of $448	0.13381 plus base rate of $448	1.1967 plus base rate of $448
Snowy Valleys	0.3910 plus base rate of $449.60	0.1674 plus base rate of $461.24	0.8963 plus base rate of $206.13

We now turn to the task of examining the various metrics suggested by the OLG and IPART for residential ratepayers, followed by an assessment of relevant business and farm business data.

3 Residential Rate Variables

Office of Local Government Guidelines call for IPART to pay regard to the Socio-Economic Index for Areas (SEIFA) scores. As a matter of fact, there are indeed four different SEIFA indexes, although it appears that our attention has been directed to the Index of Relative Socio-Economic Disadvantage.

The aforementioned index is based on household income, household educational qualifications, and household skill data gathered each census (at the time of writing the most recent available data was 2021). Education qualifications and skill data do not necessarily correlate with capacity to pay. Moreover, it should be noted that indexes are a bad way of attempting to understand the attributes of a community because their construction invariably results in information loss according to the weightings allocated to each variable. In addition, the construction of an index leads to conflation of data and, in this particular case, employs somewhat old data (these scores are only calculated by the ABS in census years)

Raw scores are generated by the ABS and then ranked at both state and national levels. The higher the ranking, the relatively less disadvantaged a community is said to be. By these measures Federation is comparatively advantaged relative to the peer group.

Figure 13: SEIFA Scores, 2021 Census (State Ranking)

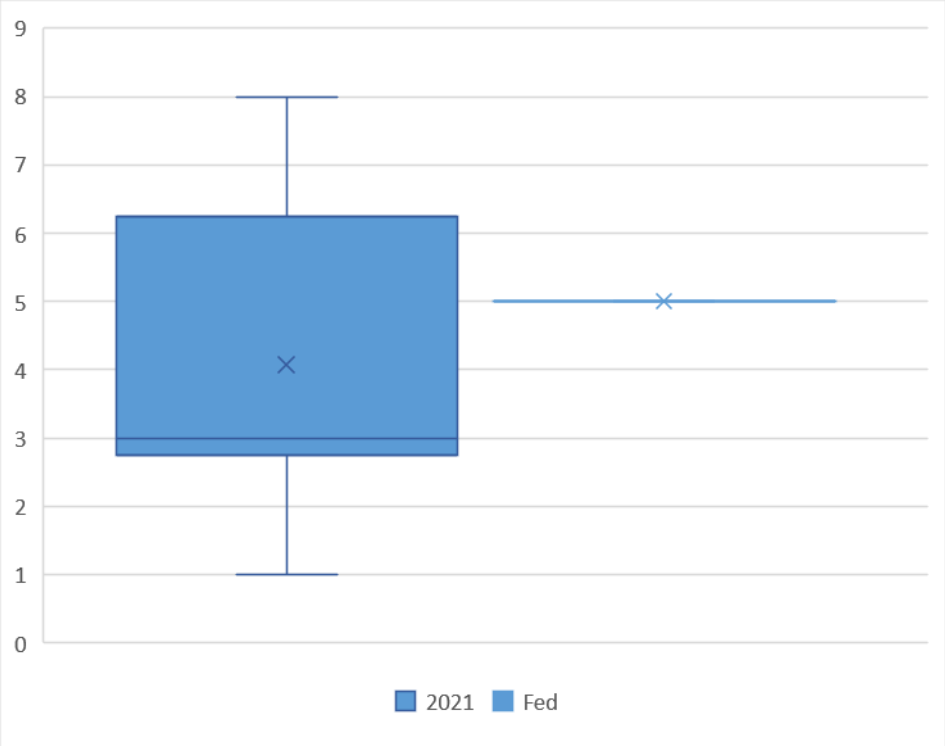
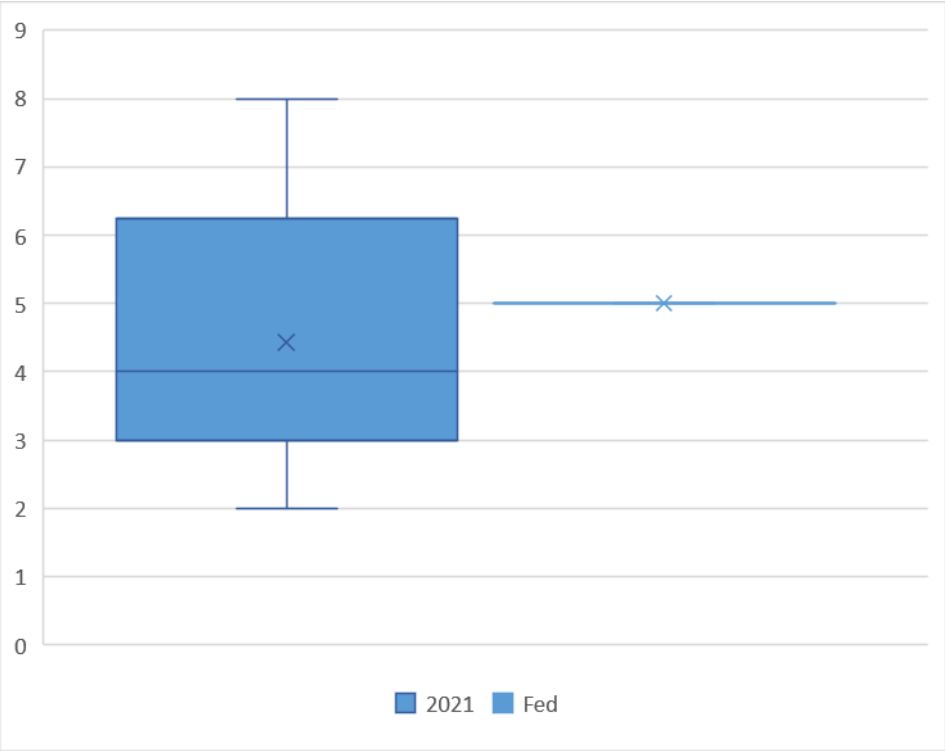


Figure 14: SEIFA Scores, 2021 (Australia Ranking)



One of the important factors in rate formulation is the proportion of aged pensioners (this data is excluded from the above indexes). By law, pensioners receive a discount of $250 on ordinary council rates and domestic waste charges (as well as $87.50 discount for both water and sewer charges). Only around half of this state government mandated tax discount is refunded by the NSW state government. Therefore, the proportion of pensioners has important implications for taxation in a local government area – especially for the remaining ratepayers that effectively have to fund the aforementioned gap. Indeed, the difference between the discount that Federation was required to provide for pensioners and the compensation received from the state government, for rates alone, was $106,000 for the 2022-23 financial year. In addition, the scholarly work has repeatedly demonstrated that there is a statistically significant association between spending (and hence some measures of technical efficiency) and the proportion of pensioners that reside in local government areas. Thus, aged pensioners have important implications for both the revenue and expenditure of local governments.

It should also be noted that the high proportion of pensioners at Federation has interesting implications for their capacity to absorb increases to local government taxation. Unlike wage earners and business owners, pensioners receive increases linked to CPI twice annually. Thus, only the portion of the SRV above the CPI adjustment has a real (rather than nominal) impact on their rates. Otherwise stated, for the many years where CPI exceeded the rate cap, pensioners effectively received a real tax cut (in the absence of an SRV; see Figure 1).

Notably Federation has a comparatively high proportion of aged pensioners even by the standards of rural councils (which are characterised by aged populations).

Figure 15: Aged Pension (%)

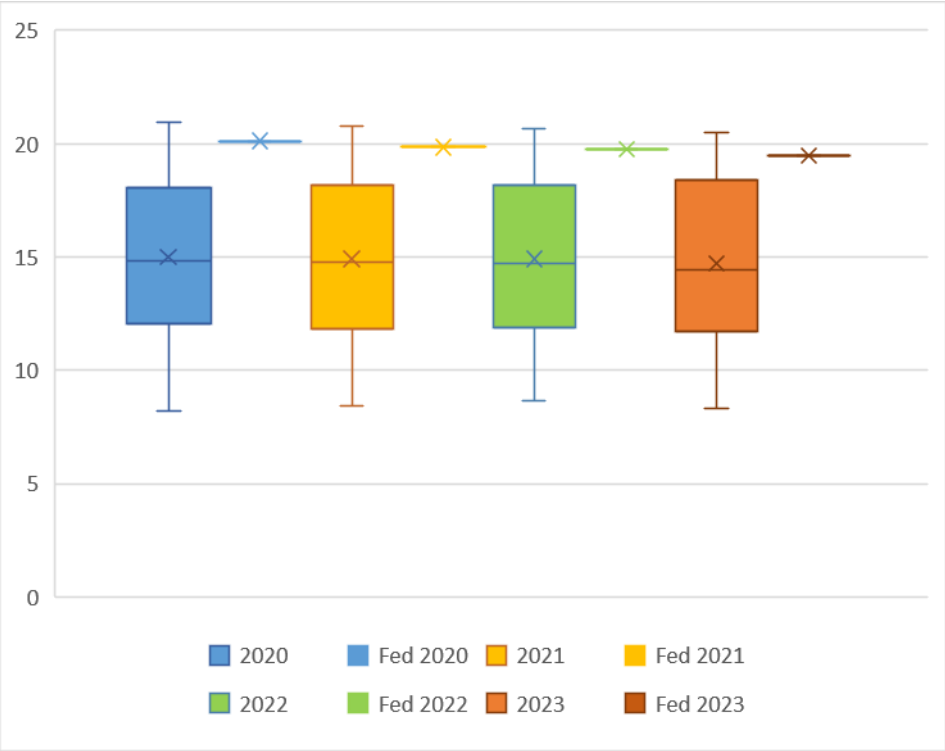


Figure 15 suggests this situation will not be easing for the foreseeable future given the extant demographic profile. Moreover, places such as Mulwala and Howlong continue to attract retirees (via internal migration) which will exacerbate matters even further. This likely growth in pensioners, on the whole, represents a chronic financial sustainability risk for Federation and thus provides some urgency to the present repair effort (including the SRV).

Figure 16: Proportion of People Aged 55-64 at Federation

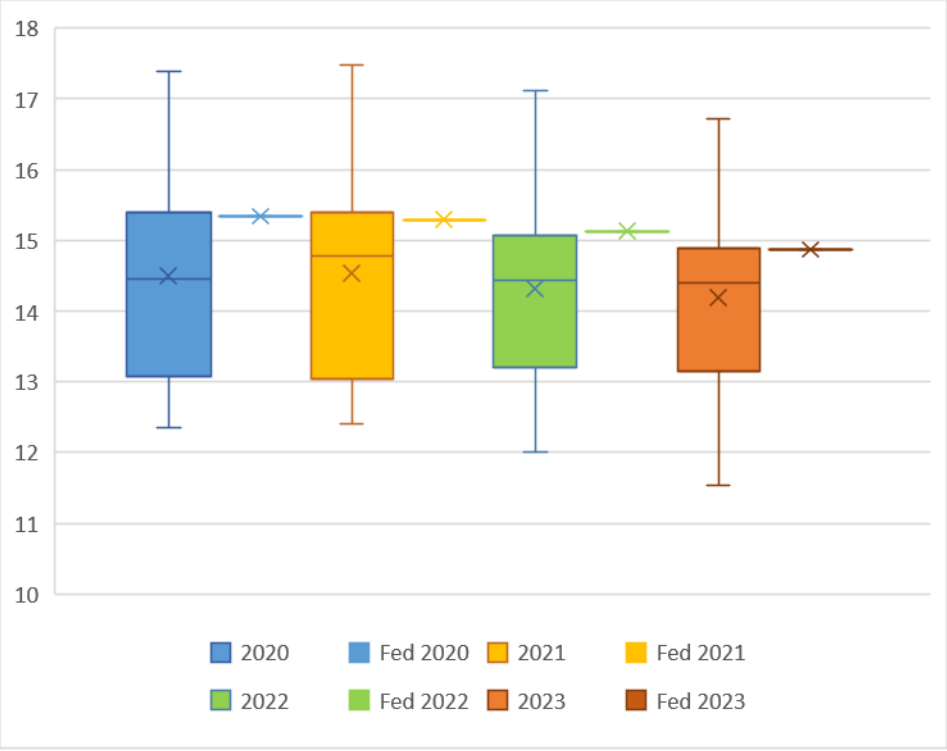
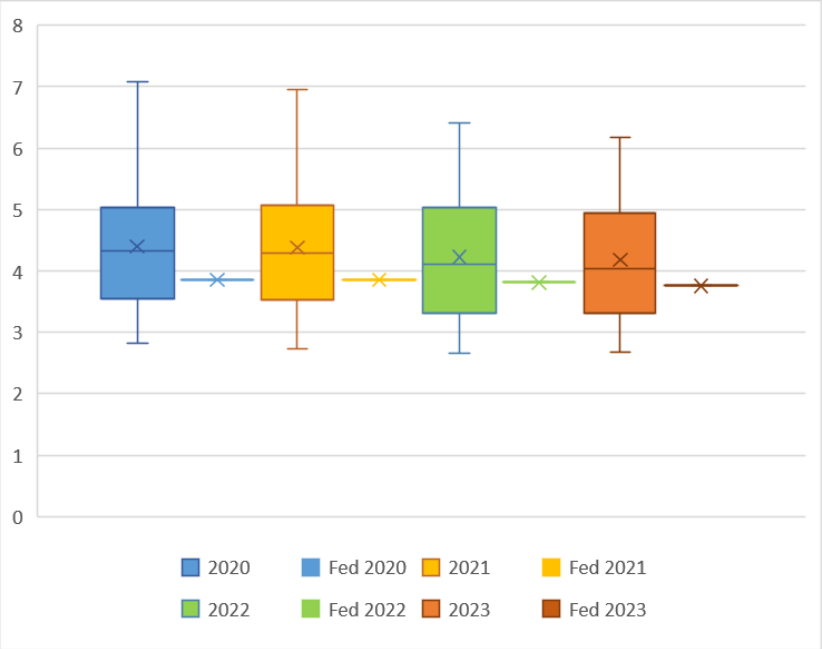


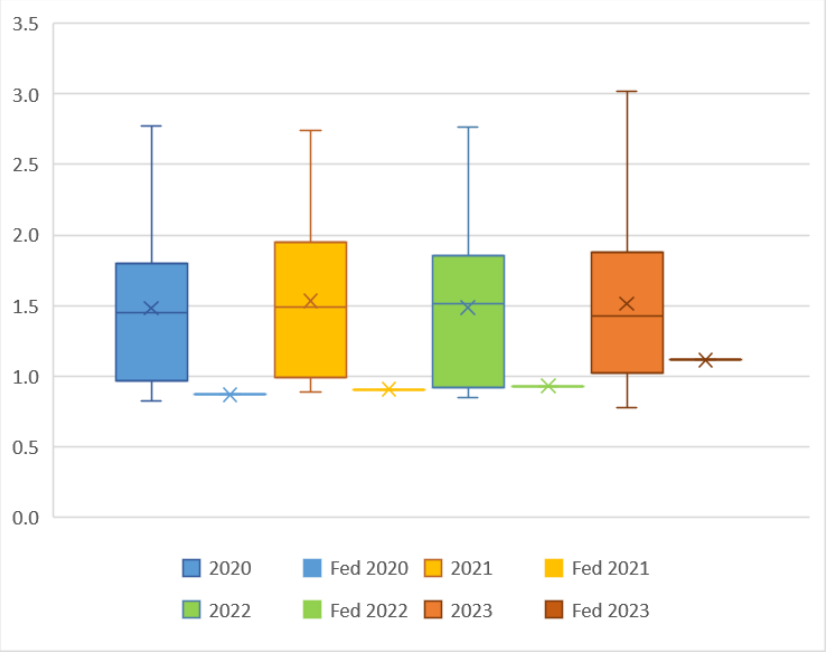
Figure 17 shows that the proportion of the population on the disability pension is pretty typical for the cohort. It is helpful that this particular pension class is not similarly over-represented.

Figure 17: Disability Support Pension (%)



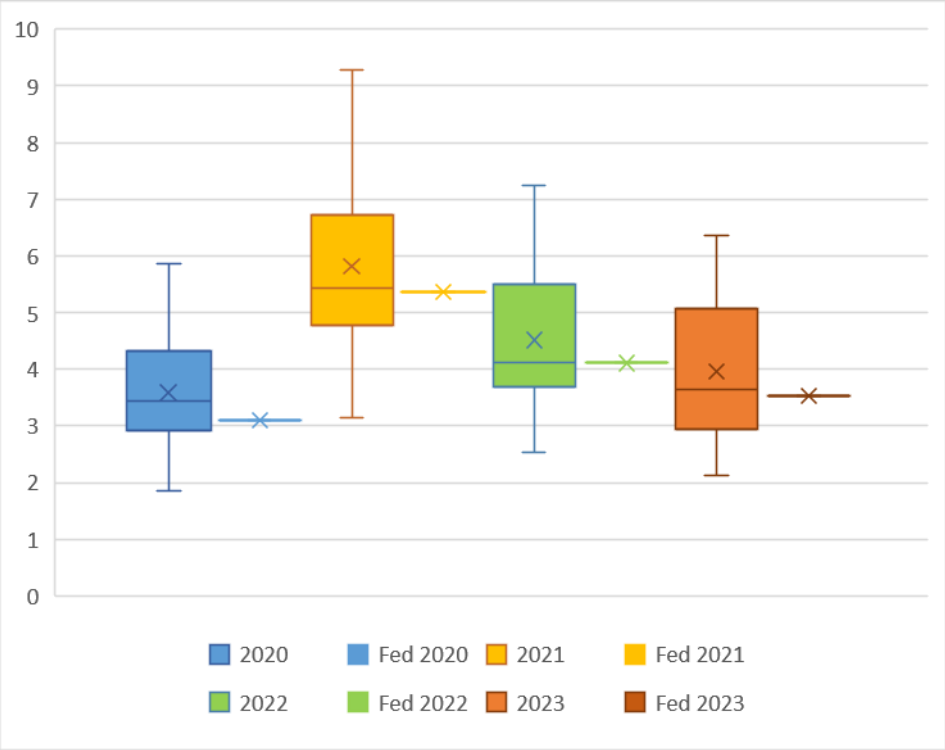
According to Figure 18, the proportion of single parent pensioners is less than typical for the cohort. This is helpful with respect to financial sustainability. However, it should be noted that the proportion of people typically registered on both the disability and single parent pensions is very low compared to the proportions involved in the aged pension. Moreover, the single parent pension applies for only a very short duration, unlike other classes of pensions that tend to persist for life. Therefore, this helpful result only mitigates matters very slightly.

Figure 18: Single Parent Pension (%)



The proportion of people on Newstart allowance has a mostly indirect effect on capacity to pay. Broadly speaking, people on this allowance are more likely to be renters than landowners. Renters do not pay rates directly – instead *some* of the local government tax price is imputed into their lease commitments. It is important to understand that landlords generally claim rates as a tax deduction and therefore as little as 55% of any rate increase (according to current tax rates) might reasonably be expected to be passed on. There will also be a delay in passing on any rate increase because of the typical practice of long-term rental agreements. Furthermore, the proportion of people in Federation Council on Newstart is slightly less than typical for the comparative cohort.

Figure 19: Newstart Allowance/Jobseeker (%)



In Figures 20 and 21 we present the median and mean wage data. Clearly there is some significant skewing of data and hence the median is the most appropriate measure of central tendency in this instance. Notably, the median wage has been well above the typical outcome relative to the comparative cohort in the most recent data. Readers should note that the ABS has a two-year lag on this data.

Figure 20: Median Wage-Earner Income ($)

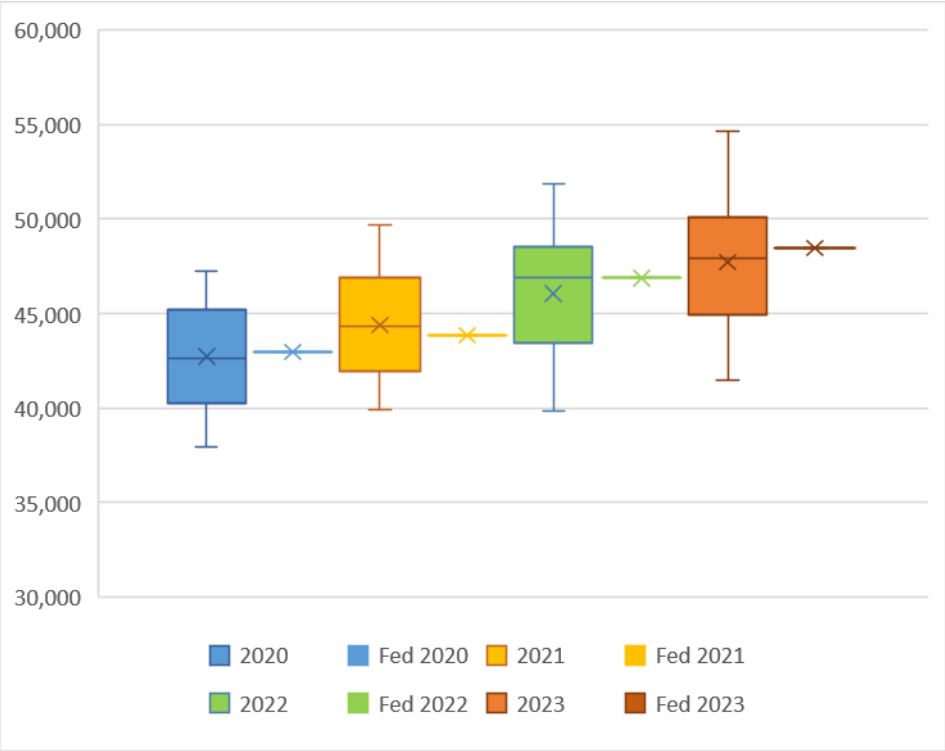
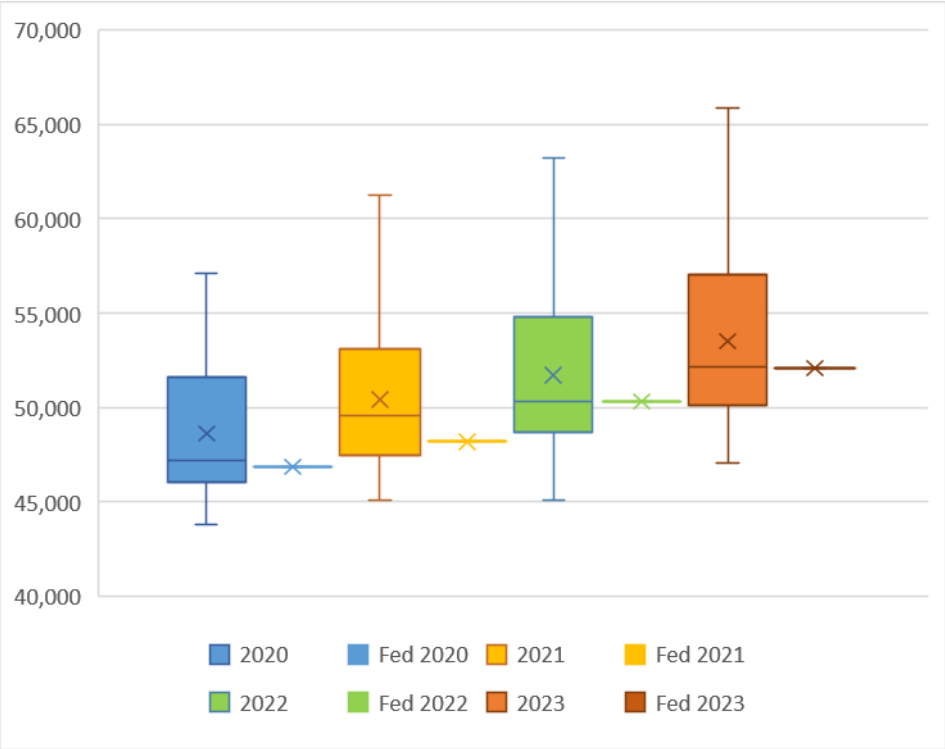
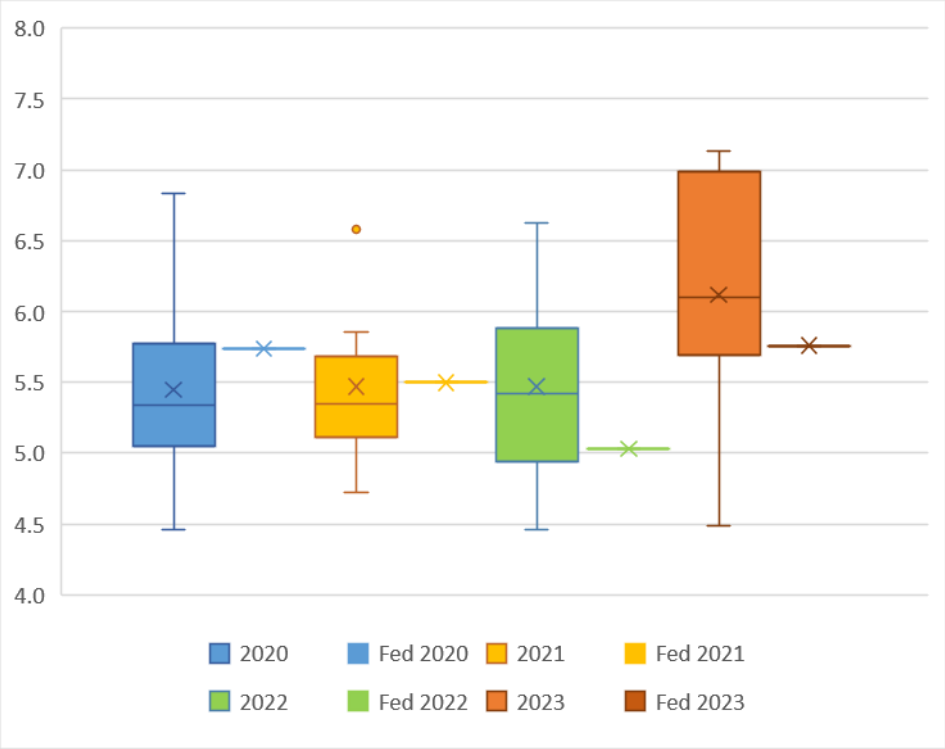


Figure 21: Mean Wage-Earner Income ($)



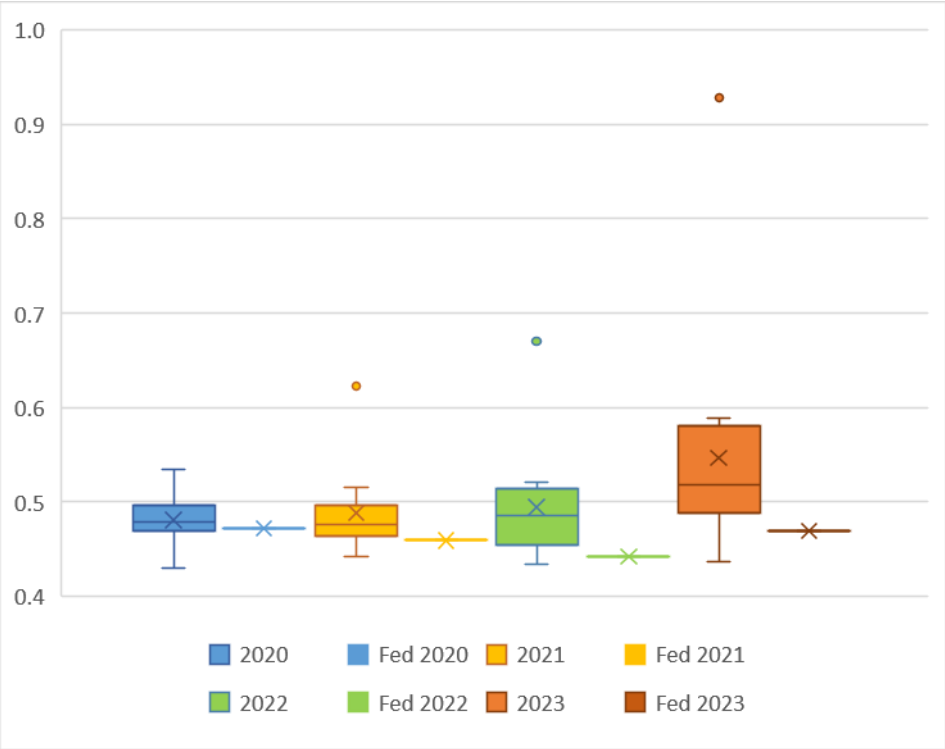
The distribution of income data is also important. Unfortunately, our Australian Bureau of Statistics has decided for many years to eschew basic statistics for spread. However, it does provide several important metrics for income inequality. The P80/20 metric is arguably the most reliable of these metrics and measures the number times that the bottom twenty percent of incomes can be divided into the number which delineates the top twenty percent of incomes. As will be seen, Federation has a relatively low level of inequality, of late, which speaks well to the distribution of capacity to pay within the community.

Figure 22: P80/20 Income Inequality Ratio



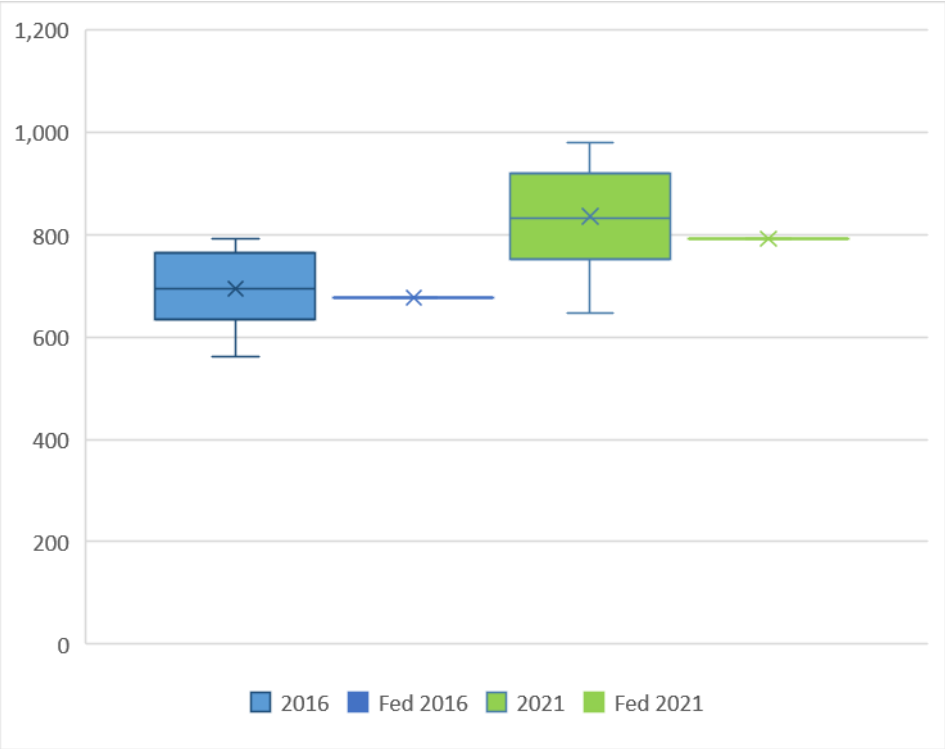
Most people are probably more familiar with the GINI and associated Lorenz curve as a measure of income inequality. This index tends to be less accurate because it is particularly sensitive to changes around the middle of the distribution where numbers have greater leverage (in a statistical sense). To aide interpretation of the GINI coefficient, we remind readers that zero represents perfect equality and one perfect inequality. Figure 23 confirms low levels of inequality at Federation relative to the comparison cohort.

Figure 23: Gini Coefficient Income Inequality Metric



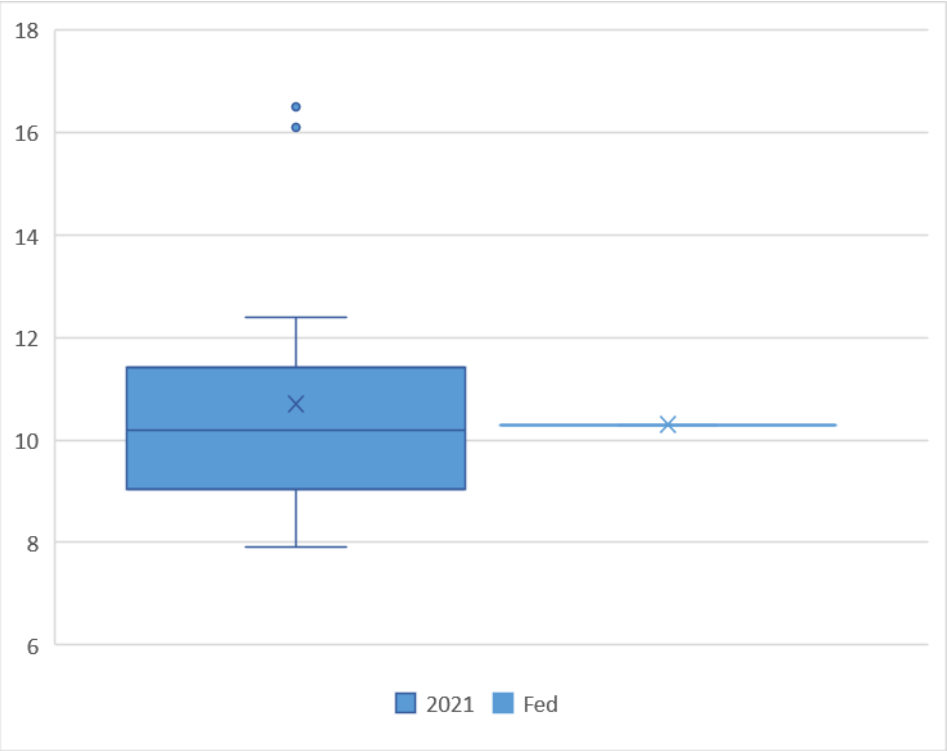
Household incomes are also important to the understanding of capacity to pay because rates are levied on households, not individuals. Unfortunately, this data is only available for census years. It suggests that Federation has slightly less than typical capacity, in the most recent census. However, this data should be viewed with at least a little scepticism given that it spans the coronavirus disruption and caution in extrapolating it is thus warranted.

Figure 24: Median Equivalised Household Income



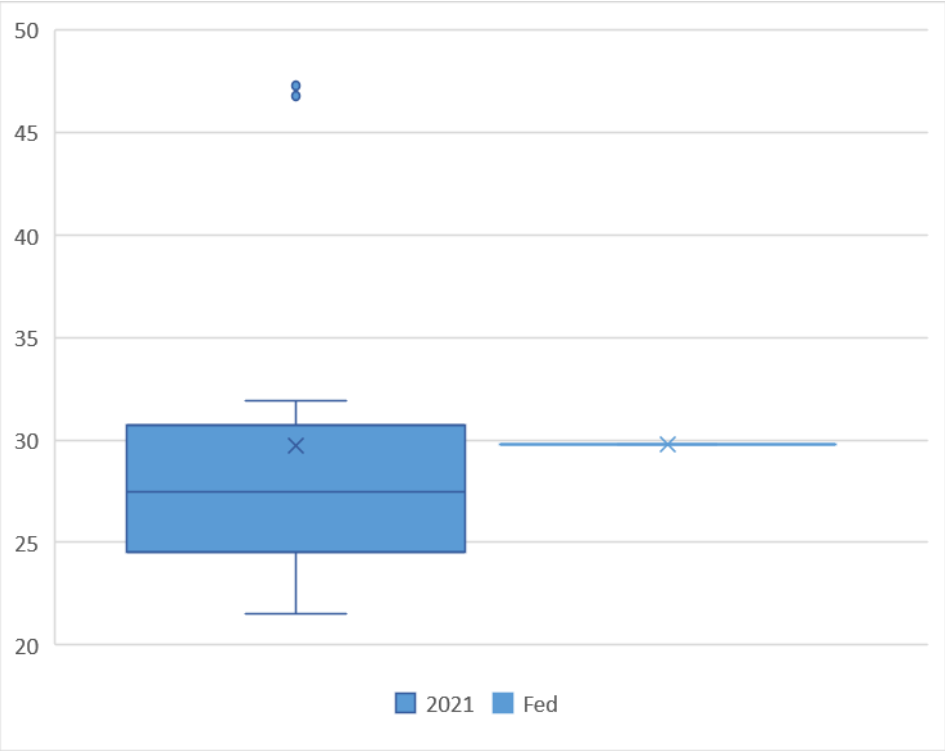
Moreover, the real issue at hand when it comes to capacity to pay is disposable income. A large portion of the income of many households is taken up by shelter costs – either mortgage repayments or, to a lesser extent, rental obligations. In Figure 25 we present the household stress data for the most recent census year (this data is also only available intermittently). The ABS defines mortgage stress as repayments greater than thirty percent of income – an arbitrary figure that could be subject to debate. The mortgage stress at Federation is lower than average and indeed, sits precisely at the median. It is thus reasonable to deduce that Federation mortgage holders have typical capacity to pay relative to the comparator cohort.

Figure 25: Household Stress (mortgage greater than or equal to 30% of household income)



However, things are not so good for renters who typically suffer average rent stress, which is above the median of the comparator cohort (clearly the data for the relevant cohort is significantly skewed in this instance). We reiterate our comments here regarding the fact that only a portion of the rates ought to be passed onto most renters because landlords typically export some of the local tax as a federal tax deduction. We also note that rates represent a tiny fraction of the rental price – most of the rent will be reflective of the capital improvements on the land (for example, the number of bedrooms). It is thus important to resist over-stating the implications for this relatively stressed group.

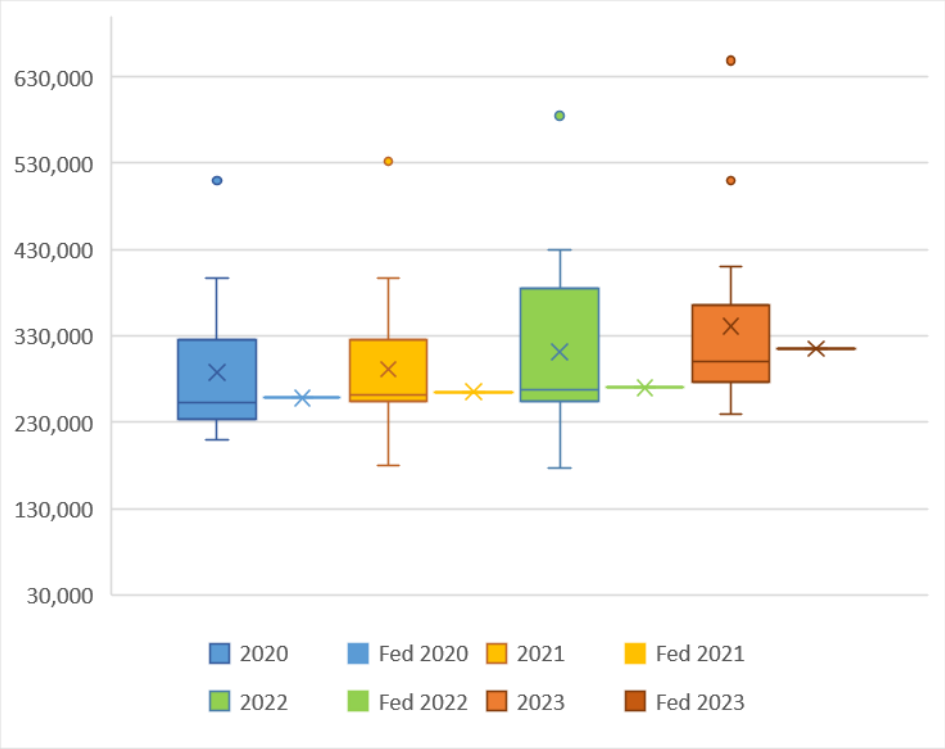
Figure 26: Household Stress (rent greater than or equal to 30% of household income)



The final piece of data that we will examine, with particular relevance to residential rates, is the median sales price for houses. This has increased considerably in the post-coronavirus period as it has done in many rural areas. All other things considered, an increased to the median house price is suggestive of an increase to unearned wealth. Given the theoretical target of local government rates – a tax conceived to be incident on unearned wealth[6] – then this is supportive, at least in part, for a commensurate rates increase. According to ABS data, the most recent increase to the sale price of established dwellings was over sixteen percent for the year.

[6] Unfortunately, because of poor application the nexus between theory and practice in NSW is not as tight as it might be.

Figure 27: Houses (Median Sales Price)



In sum, the majority of indicators suggest typical or above typical capacity to pay, aided by relatively low levels of inequality. Low rates of mortgage stress are also a positive, although this is marred a little by rent stress. All of this is supportive for the proposition that Federation residents ought to be able to pay *at least* typical revenue efforts – in our later econometric exercise we will quantify precisely what a typical revenue effort would be.

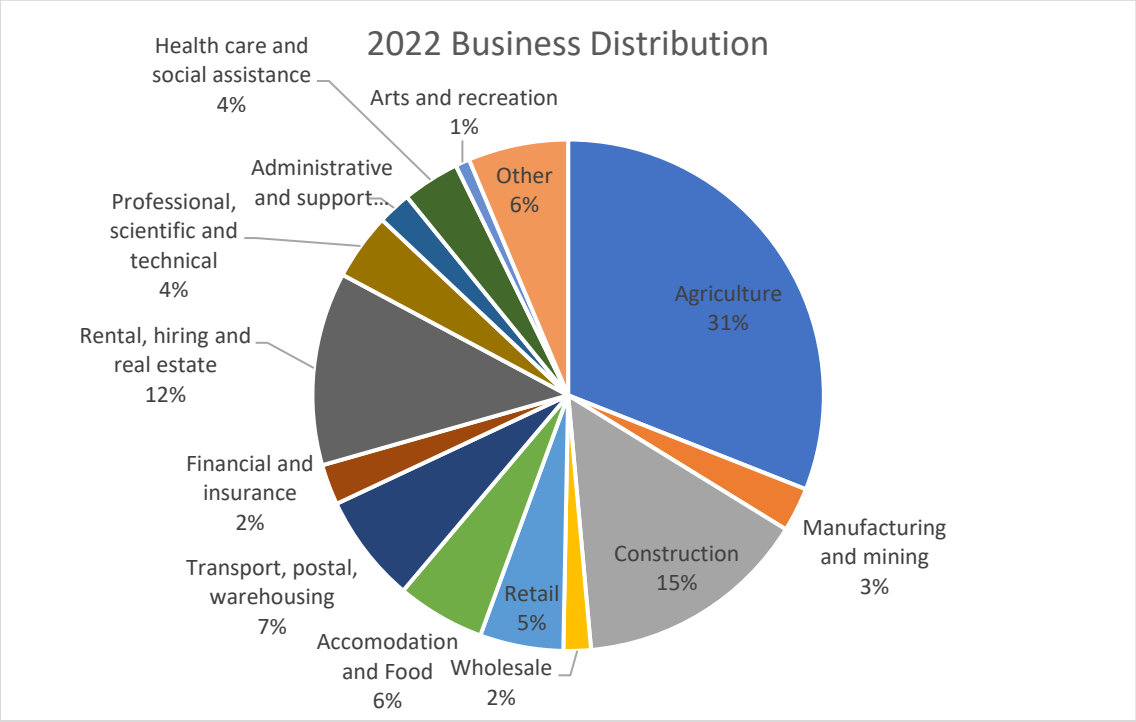
4 Non-Farm Business Income Variables

Unsurprisingly, agriculture dominates the business profile of Federation Shire. Moreover, the remaining business ventures tend to depend, at least indirectly, on the fortunes of the farming community.

We think that most people would agree that the Corowa business centre is more significant than the former Urana centre, but probably lacks the vibrancy and growth of Mulwala (and perhaps Howlong). Business activity in places such as Oaklands could only be described as depressed.

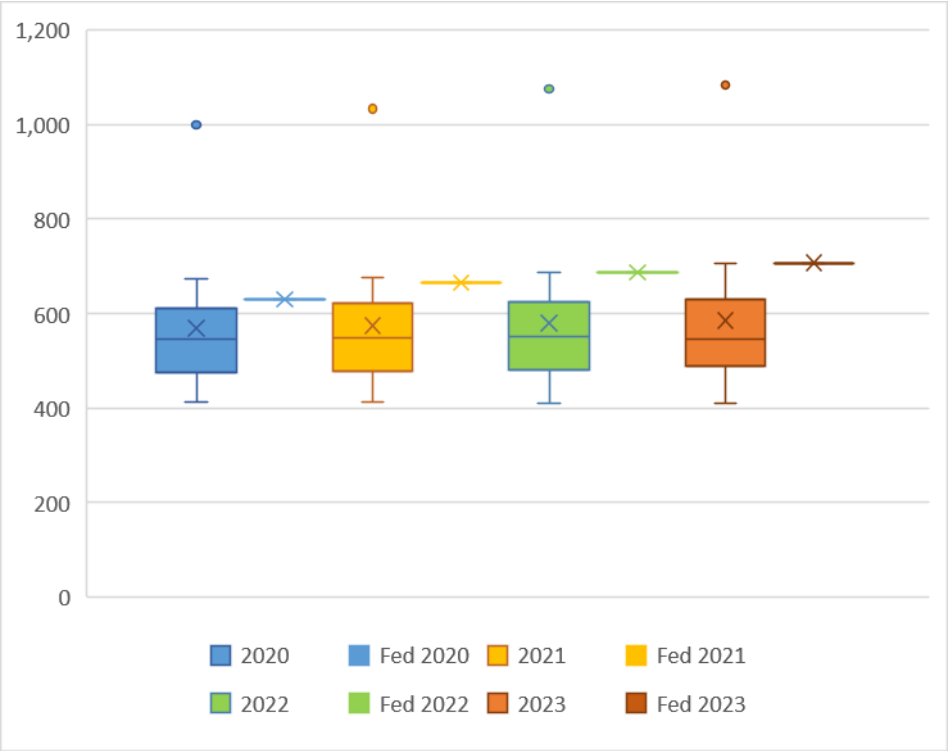
The principal problem is the relative advantages of travelling to Wagga Wagga (in the north) or Albury (in the southeast) which have a much wider range of enterprises. Certainly, for people in Urana it would likely make far more sense to travel to Wagga Wagga for shopping, medical services and the like, than it would to travel a commensurate time to Corowa. This has implications for community cohesiveness and local government efficiency as detailed in our earlier work. It also explains the dominance of agriculture in the business profile of the council area.

Figure 28: Categories of Business Distribution, 2022



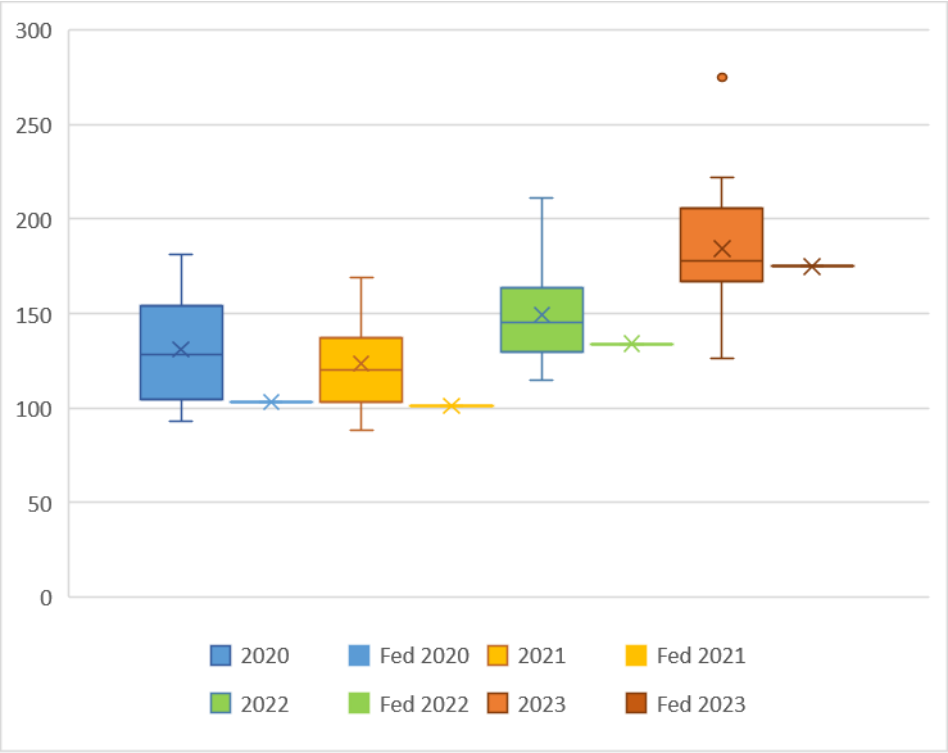
Compared to other local governments in the same classification group, Federation has a high level of business activity. However, people should be mindful that the activity is concentrated in the south and also that the figures include agricultural enterprises.

Figure 29: Number of Businesses



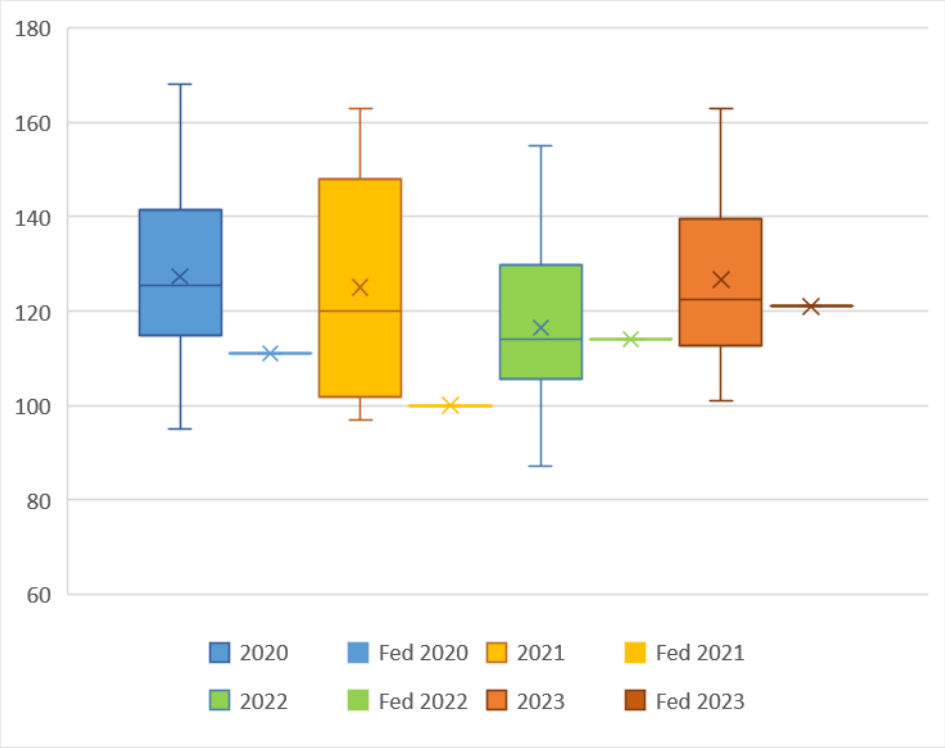
Business entries have picked up in the most recent year, following recovery from the coronavirus measures. They are now at typical levels relative to the comparative cohort. We emphasise that the data for years prior to 2023 were likely heavily distorted by the coronavirus pandemic responses, and that caution should therefore be placed on interpreting this period (especially given that it takes considerable time to establish most kinds of businesses).

Figure 30: Business Entries



Business exits have typically been below average for the comparative cohort. Together with Figure 30, the data suggests a pretty typical economic profile for Federation relative to the peer group.

Figure 31: Business Exits

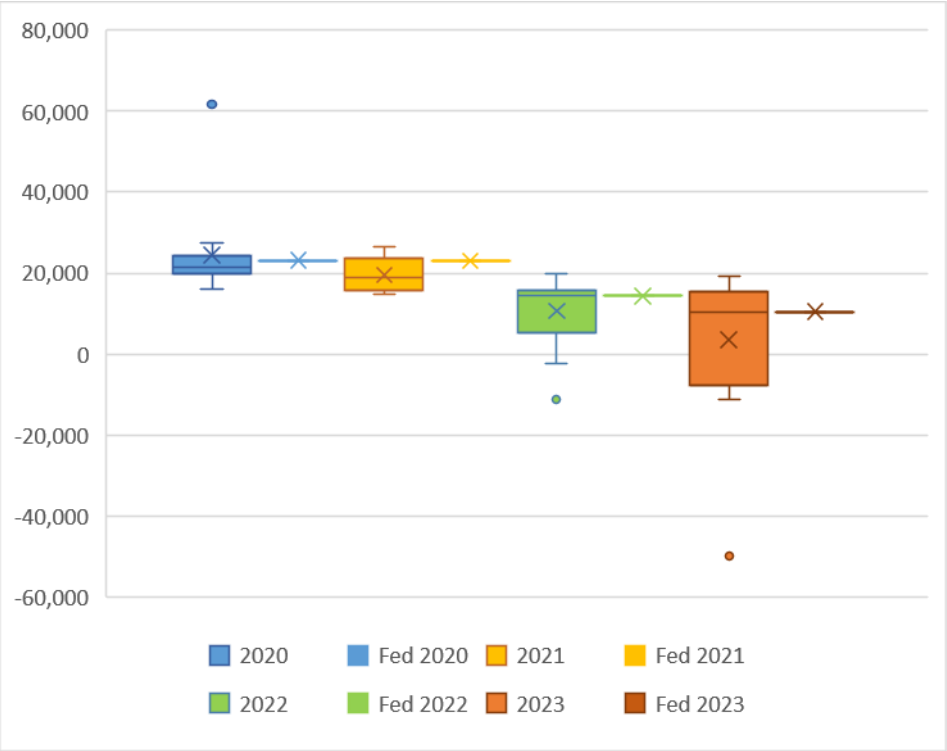


The ABS only provides business data for unincorporated business by local government area. The ABS defines these as 'businesses (e.g. sole proprietorships, partnerships, family trusts) that are owned and operate by one or more households and have registered for an ABN [Australian Business Number] as legal entities'. The accounts for large corporate chains defy attribution to particular local government areas hence their exclusion from the following data. However, it would not be unreasonable to posit a consistent correlation between corporate and unincorporated business activity for all members of a given comparator group.

In addition, readers should note that the data from the ABS comes with a two-year lag and overlaps the period of the coronavirus response which resulted in the cessation of activities for many kinds of businesses.

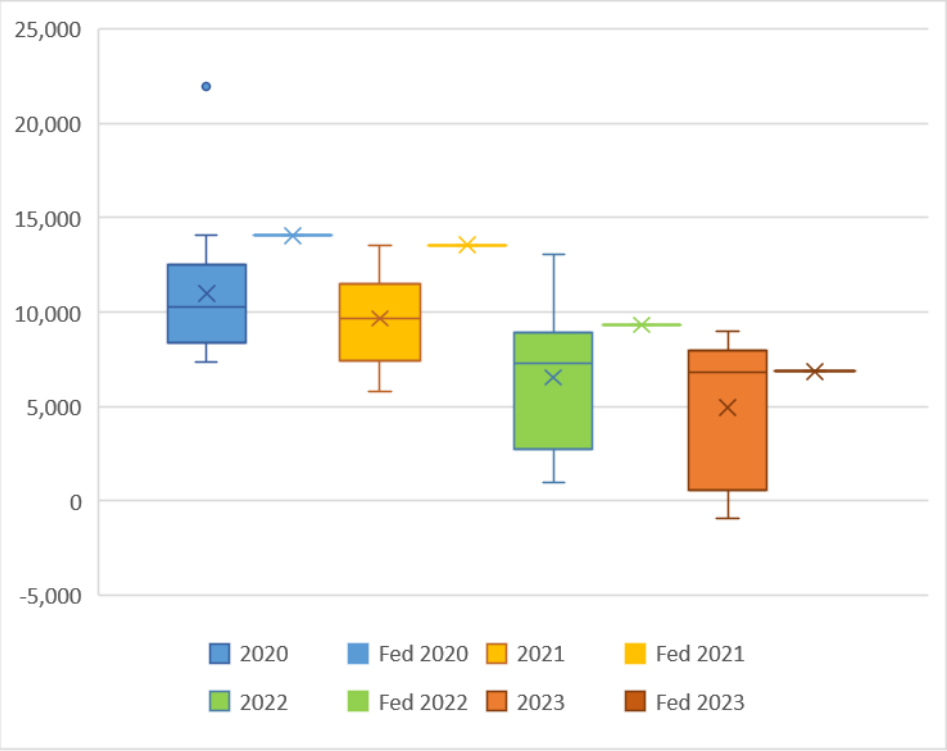
Figure 32 illustrates that in most years mean unincorporated business income for Federation was above typical levels (close to the quartile three line – above which sit twenty-five percent of the comparator group).

Figure 32: Mean Unincorporated Business Income



Clearly unincorporated business data for the council area has been subject to negative skewing, as illustrated by Figure 33. Prior to the advent of the coronavirus, median unincorporated business income was some of the highest in the peer group. This is suggestive of significantly higher capacity to pay.

Figure 33: Median Unincorporated Business Income



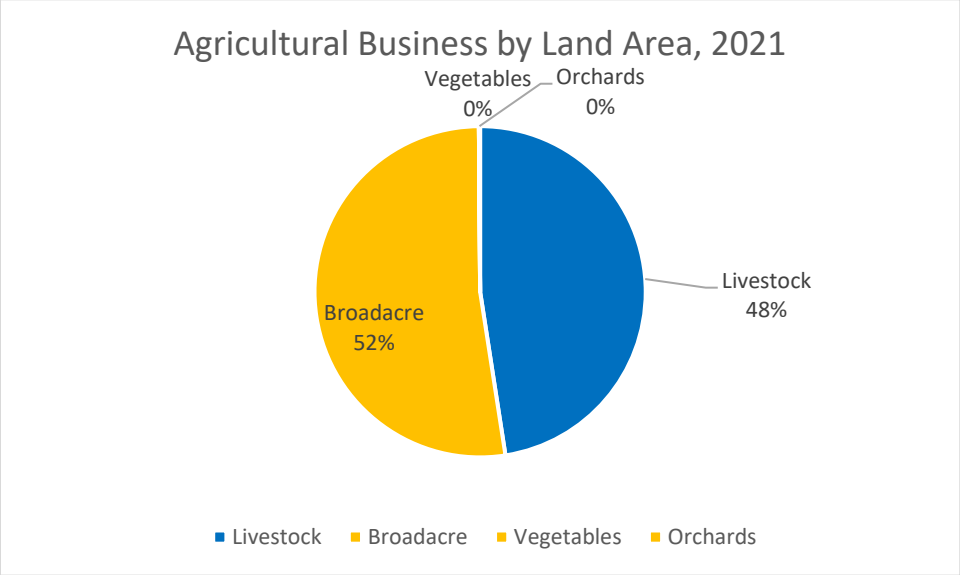
In sum, non-farm businesses generally have typical or above typical indicators of capacity to pay. In the econometric exercise later, we will precisely state the typical revenue effort expected of a council with Federation's particular characteristics.

5 Farm Business Variables

Like most rural local governments, the foundation of the local economy centres on agricultural business activity. Moreover, in responses to the recent SRV application much was made of the (flawed) average rate data which appeared to some to suggest that farmers at Federation were paying well over the odds for their local government taxes, in a comparative sense. For these reasons, an in-depth analysis of the agricultural trends, revenue effort, and prospects is clearly warranted.

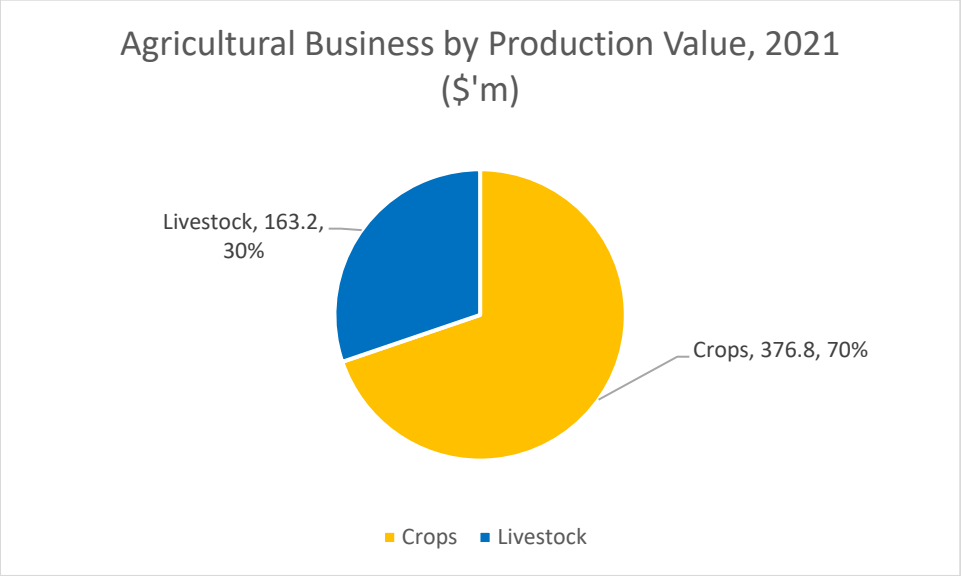
The Australian Bureau of Agricultural Resource Economics (ABARES) provides data disaggregated to a local government level, in census years. In Figure 34 we present the proportion of agricultural land devoted to the various pursuits as categorised by ABARES. As can be seen, broad acre cropping is now the predominate land use in Federation.

Figure 34: Agricultural Business by Land Area, 2021



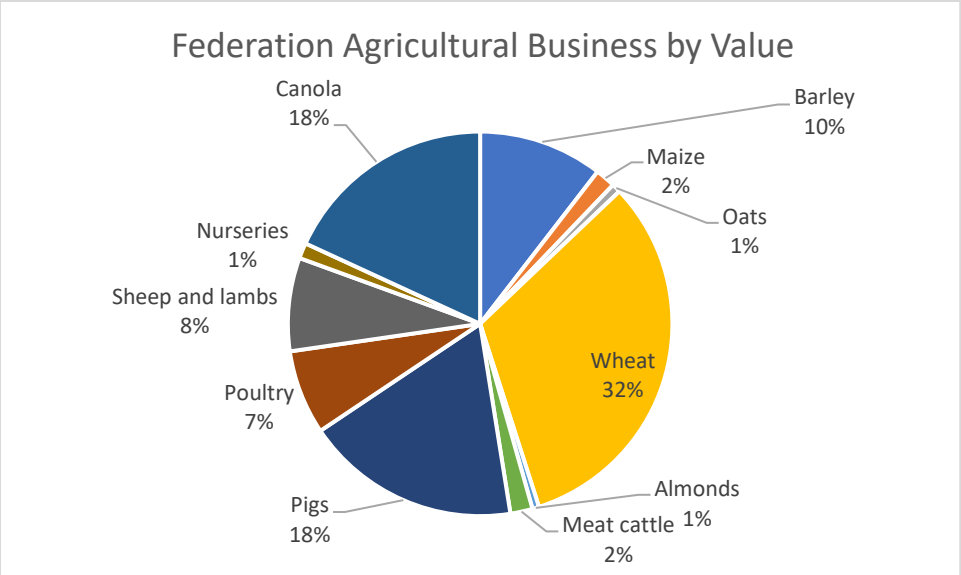
Moreover, Figure 35 illustrates that the majority of value produced by farmers in the area is derived from cropping – indeed disproportionately so with respect to the land area under cultivation.

Figure 35: Agricultural Business by Production Value, 2021



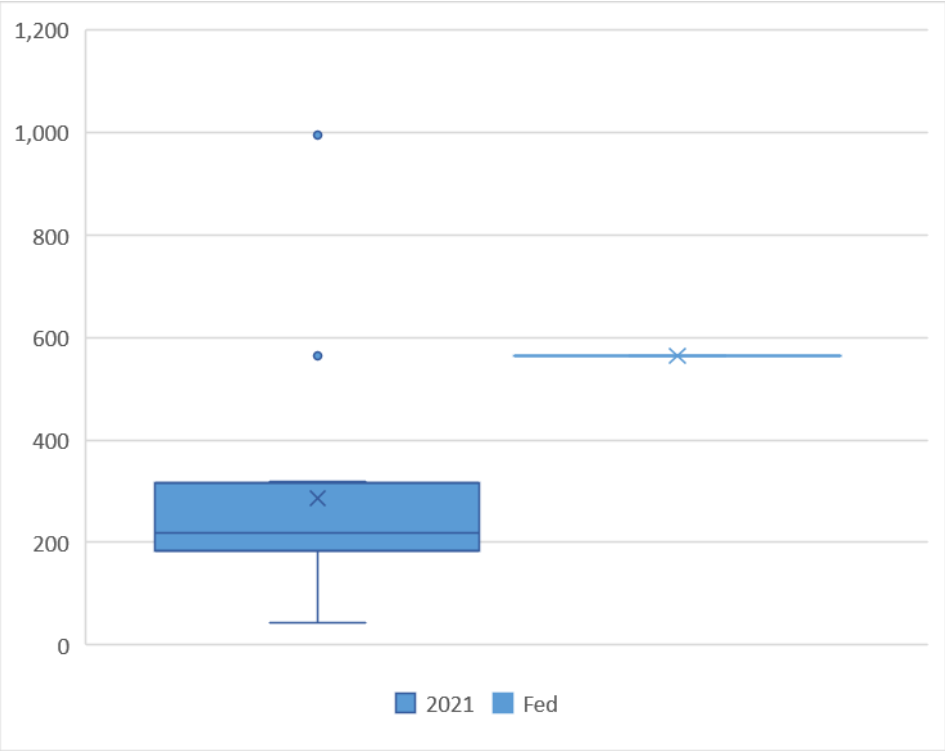
ABARES further provides data on the production value of particular soft commodities. From Figure 36 it can be seen that the most valuable activity is wheat cropping, followed (equally) by canola crops and pig farming, then barley cropping. Sheep and fat lamb production comes in fifth, in terms of production value.

Figure 36: Federation Agricultural Business by Production Value, 2021



Notably, the farming activities in Federation are far more profitable than they are in other similar councils, as illustrated in Figure 37. This is yet another reason why it is ill-advised to compare the average farm rates between these councils. As we noted earlier, rates are paid out of income flows. This significant divergence from typical agricultural business incomes at Federation, further confounds any attempt to compare average rates (which was already significantly marred by high levels of skewing within and between the rate category data).

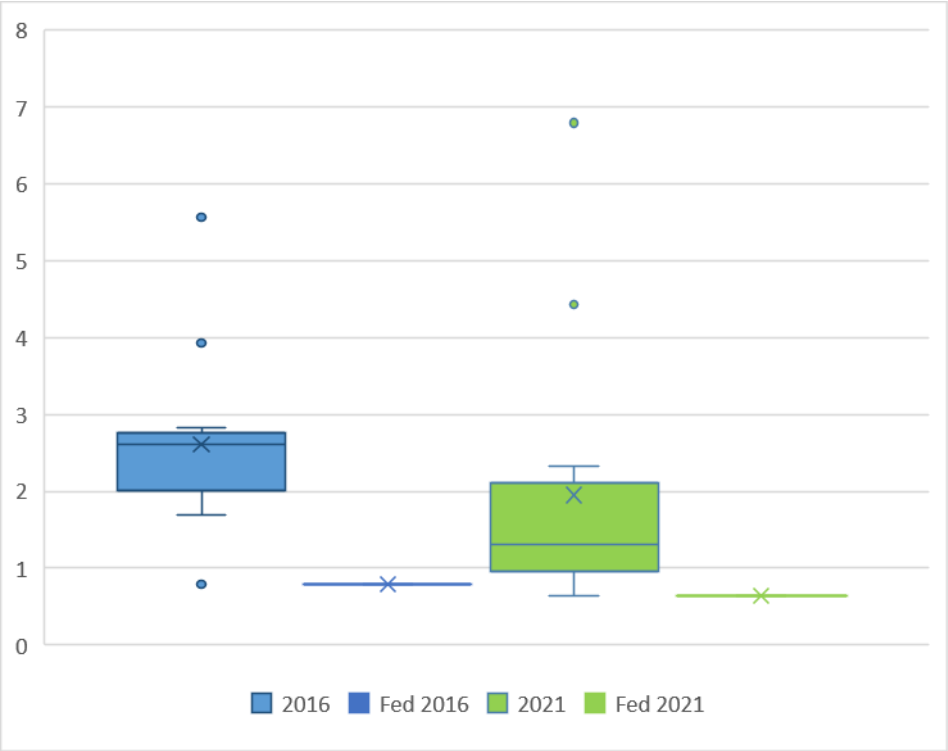
Figure 37: Comparative Agricultural Production Value, 2021



Having access to ABARES data on the revenue derived from agricultural activities in Federation, allows us to calculate the agricultural rate revenue effort. As Ladd and Yinger (1986) rightly point out, this is one of the most sensible bases for comparing taxation burdens, because rates are paid out of income flows.

As illustrated in Figure 38, the revenue effort for local government taxation on the farm category of ratepayers is indeed the *lowest* in the comparative cohort – the complete opposite of claims made in response to the last SRV application. Specifically, for 2021, farm rate revenue effort at Federation is 0.64 percent, the mean for the cohort is 1.95 percent, and the median is 1.3 percent (the highest revenue effort for the cohort is 6.79 percent). Moreover, it must be remembered that farm businesses will claim rates as a tax deduction, therefore the effective revenue effort is even smaller than the aforementioned figures might suggest. The large discrepancy between extant opinion and actual fact underlines the importance of using the correct statistics and not relying on inappropriate measures of central tendency for obviously skewed data. It also demonstrates why it is critical to be cognisant of basic taxation theory – especially the fact that rates and capacity to pay are derived from income flows accruing to landowners. In the econometric exercise that follows we perform robust empirical analysis that provides reliable evidence.

Figure 38: Comparative Farm Business Revenue Effort, 2016 and 2021



Some farmers have expressed a concern that the above graphs might misrepresent their actual capacity to pay due to particular costs of production. However, with respect to comparative revenue effort for similar local government areas this argument seems to be flawed. Farmers in other areas also have substantial costs of production – so unless it is being contended that farmers in Federation are less efficient than their peers, then the argument does not stand up to scrutiny.

Some might also argue that farm businesses differ from most other enterprises in at least two important ways. First, a farm business is a land intensive enterprise, and it is often difficult to sub-divide or put land to other uses. Second, farm businesses are faced with considerably more risk than other enterprises – especially with respect to weather and soft-commodity price fluctuations. Accordingly, it is prudent to briefly review the current operating environment for farms in the area.

In Figure 39 we present the most recent assessment of drought conditions available at the time of writing and derived from the NSW Department of Primary Industries. It suggests that agricultural ventures are not impacted by drought at this time.

Figure 39: Current Drought Indicator

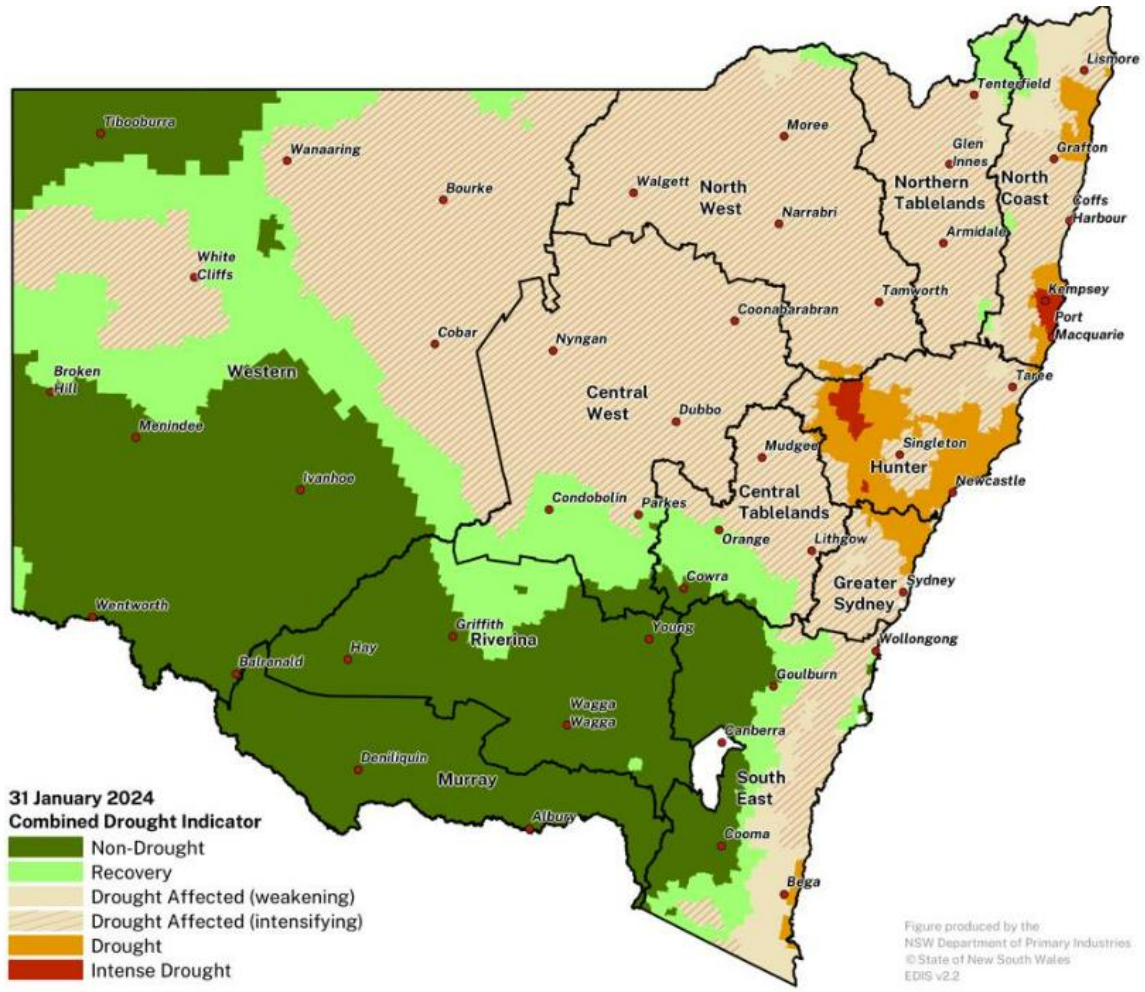
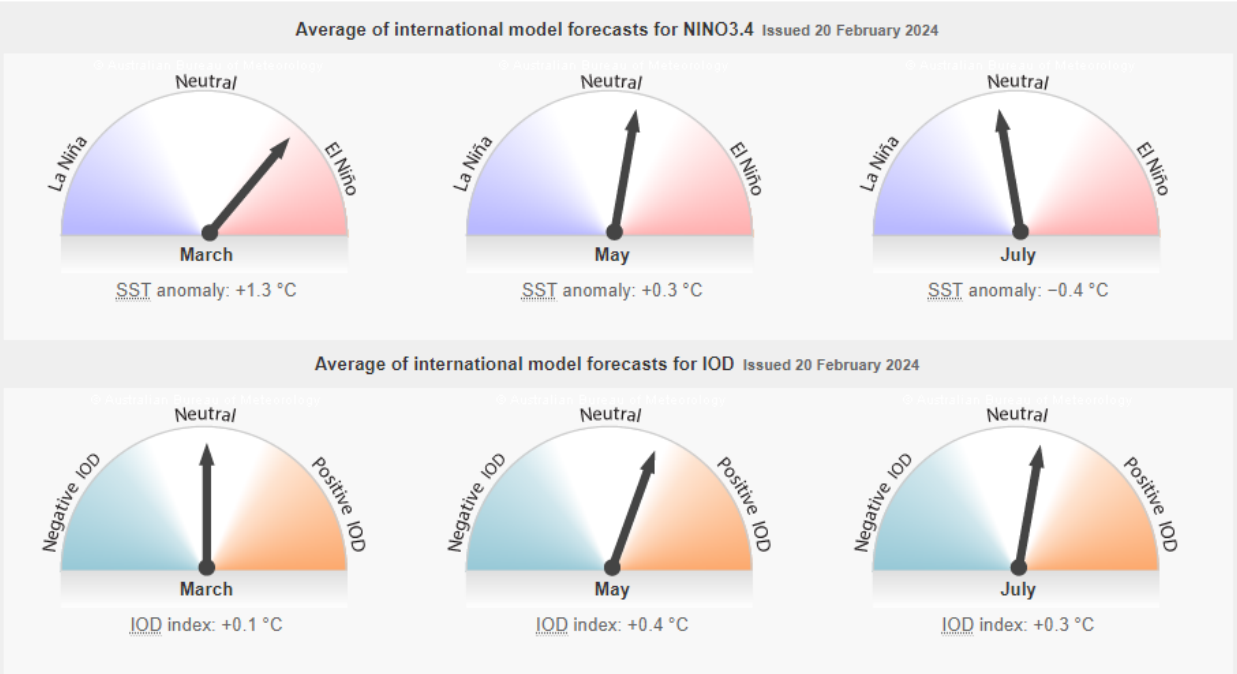


Figure 1. Verified NSW Combined Drought Indicator to 31 January 2024

In Figure 40 we present forward indicators of likely precipitation from the Australian Bureau of Meteorology. It is now suggesting a higher likelihood of La Nina conditions from the second half of this year. Since 1950, La Nina years have been associated with a twenty-three percent increase on average rainfall levels. This all bodes well for continued strong agricultural production for the foreseeable future (and hence strong capacity to pay).

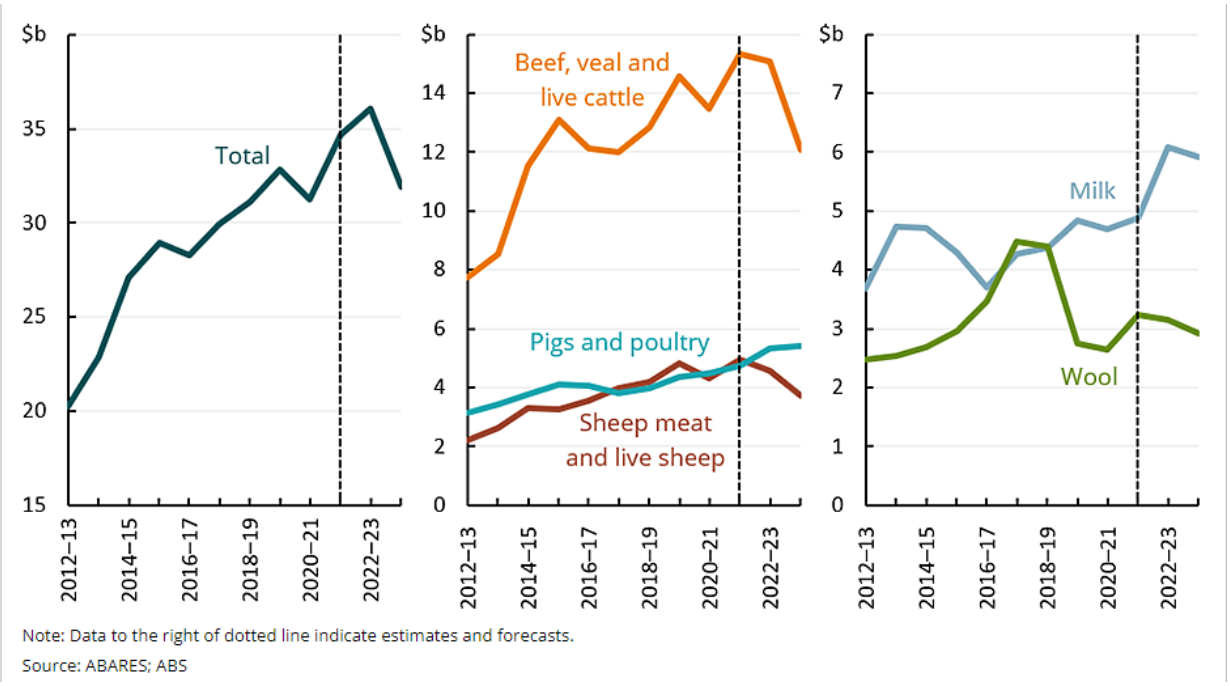
Figure 40: Rainfall Forecast Indicators



Source: http://www.bom.gov.au/climate/enso/

The other piece of the puzzle for farmers is the likely price that they will receive for soft commodities produced. As Figure 41 reveals, livestock prices are predicted to fall from recent record highs in aggregate for the coming financial year. However, the single largest component of livestock production at Federation – pigs and poultry – are expected to increase in value for the future. Sheep meat is expected to decline but will still be well above the levels realised a decade ago.

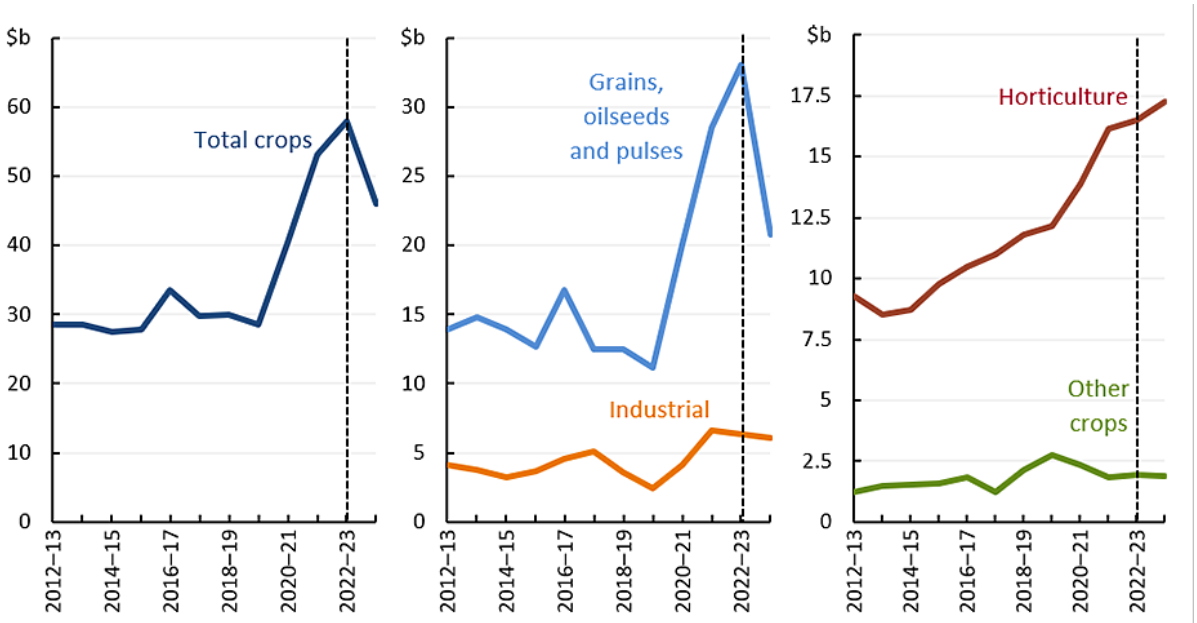
Figure 41: Soft Commodity Prices Over Time - Livestock



Source: https://www.agriculture.gov.au/abares/research-topics/agricultural-outlook/outlook-livestock#export-values-to-fall-with-lower-export-prices

Similarly, the values realised for crops are expected to come off record highs (the extraordinary spikes that occurred in the wake of the Ukraine war). However, as Figure 42 confirms, the predicted value of output from this quarter is still expected to come in well above historical trends (some twenty-nine percent above the ten-year average in aggregate according to ABARES, 2024).

Figure 42: Soft Commodity Prices Over Time – Crops



Note: Data to the right of the dotted line indicate estimates and forecasts.

Source: ABARES; ABS

In sum, current and future conditions are conducive to high profits for the agricultural sector for the foreseeable future. This is, in turn, suggestive of a high capacity to pay. Furthermore, we note that this category of ratepayers at Federation are currently paying far less than similar businesses in the peer cohort. In the econometric exercise that follows we will precisely calculate the capacity to pay for the local government area as a whole.

6 Econometric Analysis of Total Rate Capacity

Thus far, we have surveyed a large number of indicators that mostly agree with the sentiment that ratepayers in Federation Council have the capacity to pay, *at least*, a typical rate of local government taxation. Indeed, quite a few of the indicators suggest that the capacity to pay at Federation is much higher than it is for the relevant peer group. Moreover, we have also observed that no single metric has been able to accurately reflect the true state of affairs – some of the metrics have been badly distorted due to skewing, others are inconsistent with taxation theory, and yet more only tell part of the story.

As the famous local government economist Helen Ladd (1989) observed, local government taxes are ultimately paid out of flows of income, not stocks of wealth. Certainly, we might use land values to determine the proportion of the taxation liability that should fall to each ratepayer – but the total tax take itself must be a function of income.

An econometric exercise is the best single way to get a handle on the total tax take that ought to be extracted by a local government seeking to exert typical revenue effort. We use the word 'ought' advisably here – because it is a fact that a failure to extract at least typical revenue effort is likely to result in declining financial sustainability, intergenerational inequity, and perhaps even work as a brake on local economic growth.

In econometrics we use sophisticated mathematics along with robust statistical reasoning to first establish a formula that best describes the mean response of the dependent variable (in this case, total tax take), to a number of relevant independent variables. We can then insert the precise values, for Federation local government area, into the equation that we derive and use this to predict the total tax take that would be expected if council were exerting a typical revenue effort.

Regression has a number of advantages over other potential methods. First, it allows us to take account of *all* of the important variables known to affect capacity to pay simultaneously. As we have noted, capacity to pay is a function of incomes, so in a regression we include details of the number of various taxpayers, their wages, various welfare benefits, and also business incomes. A second advantage of regression is that panel methods can allow us to ascertain matters over multiple years and thus avoid any distortions that may have arisen if a given year were atypical. In addition, regression allows economists to make *ceteris paribus* claims – that is, precisely understand statistical associations between the regressand and regressors, holding all other things constant. Furthermore, by recourse to sophisticated econometric techniques – such as fixed effects regression – we can even account for unobservable variables, provided that they are close to time invariant. This means that there is relatively little risk of under-specification.

Readers should be aware that the three professors who have authored this report are extremely experienced scholars, with a combined output of well over two hundred works, which have been cited more than four thousand times by their scholarly peers. They are thus some of the best in the world, and routinely conduct far more sophisticated empirical analysis than even econometrics.

Econometrics is based on a strong body of theory developed over centuries and is something that students study at both the undergraduate and graduate levels. Typically, to become an econometrician one studies at least a bachelor's degree (three years), followed by a two year master's. All three of the professors involved in this present work hold doctorates in the field (the highest qualification available from universities), and all have successfully taught postgraduates at the highest level. For readers interested in further information on econometrics, we refer them to the introductory works of Wooldridge (2006) or Kennedy (2003)

Given the experience of the authors – in addition to the fact that rigorous tests were conducted on our model – there can be no reasonable basis for disputing the findings which follow.

Our regressions were conducted on the entire cohort of rural councils within NSW, over a five-year panel of detailed data which has been laboriously assembled from audited financial statements, Australian Bureau of Statistics data, as well as Office of Local Government data. The regression is thus considerably broader than the earlier graph work which mostly refers to just the cohort of councils in the same Office of Local Government category as Federation.

The final model specification that we employ in our analysis can be expressed as follows:

$$\mathbf{T}_{it} = \alpha_i + \beta_1 \mathbf{A}_{it} + \beta_2 \mathbf{I}_{it} + \mu_{it} \qquad t = 1.5$$

Where **T** is the total tax take (that is the sum of all categories of taxation) expected of a local government, **A** is the disaggregated assessment data, **I** is a vector of relevant income data for particular local government areas at specific times and μ is an idiosyncratic error term. The subscript *it* refers to the i^{th} council entity and the t^{th} year. Here we included all fifty-seven councils categorised as broadly similar (in terms of urbanity) under the extant federal government classification system[7]. Log transformations were employed to counter skewness when econometric diagnostics tests revealed the need to do so. We also conducted and satisfied all other relevant diagnostic tests. Table 4 provides the definition for each variable as well as summary data.

[7] We were missing data for a few of the councils for the 2023 financial year, owing to Auditor-General delays, hence the disparity in the *n* figure presented in Table 6. We used appropriate regression techniques to mitigate the very small number of missing data points.

Table 4: Definitions and Means of Variables, FY2019 - FY2023 Inclusive

Variable	Definition	Similar Councils
Rates		
Rates	Total taxation (rate) take for the entire local government area.	7105.004
Assessments		
Residential (ln)	Number of residential assessments, logged	7.916
Farm (ln)	Number of farm assessments, logged	6.879
Business (ln)	Number of business assessments, logged	5.800
Income Controls		
Mean employee income (ln)	Mean employee income (lagged), logged	10.807
Mean unincorporated business income	Mean unincorporated business income (lagged)	15507.13
Aged	Proportion of people on an aged pension	13.614
DSP (ln)	Proportion of people on a disability support pension, logged	1.456
Newstart (ln)	Proportion of people on a Newstart allowance, logged	1.436
Carer (ln)	Proportion of people on a carers' pension, logged	0.416
Single (ln)	Proportion of people on a single parent pension, logged	0.400

In Table 5 we set out the coefficients, standard errors and level of significance of important variables arising from the econometric exercise. We hasten to add that this is just an interim step in our quest to precisely detail the average total tax take of a council with Federation's characteristics. Nevertheless, it is worthwhile to spend just a little time examining some of the coefficients.

Notably, the number of residential assessments was statistically significant at the highest level. The mathematical interpretation of this result is that a one percent increase to the number of residential assessments increases the total tax take by approximately seventy-four thousand dollars, *ceteris paribus*. To understand the importance of this result one must be cognisant of the *ceteris paribus* nature of coefficients derived from our econometrics – what we are saying here is that if we held all other variables constant then increases to the number of residential assessments will result in increased total tax take.

Otherwise stated, the proportion of residential assessments is a statistically significant determinant of total tax take.

The main reason for this is that typically (but not always) rural local governments levy a higher rate of taxation on residential properties than they do on farm business land. Unsurprisingly, the other two category variables were not statistically significant.

The other main result of interest was the mean income which was also statistically significant at the highest level of reasoning. The mathematical interpretation of this is that each one percent increase to employee income is associated with almost an additional thirty-six thousand dollars in total tax take. This is not a large response, but it is (albeit indirectly) consistent with the observation of scholars over many years that local government goods are indeed normal in an economic sense (see, for instance, Drew, Kortt and Dollery, 2014). A number of welfare receipt variables were also statistically significant as expected.

It should be noted that the authors of this report also ran a number of other regression models – using techniques such as random effects, ordinary least squares with year dummies, and even mixed effects – and found the results to be very robust. We also experimented with other variables and different transformations of same and the regression was also shown to be robust to alternate specification.

It might also be noted that the coefficient of determination for this work was extraordinarily high for a fixed-effects regression (which is known to be mathematically inefficient). This further attests to the robustness of our approach.

Table 5: Multiple Regression Results, 2019-2023 inclusive

	Extended Cohort
Number of residential assessments (ln)	7426.573** (2810.085)
Number of farm assessments (ln)	-2282.355 (1690.508)
Number of business assessments (ln)	-1504.041 (1130.615)
Mean employee income (ln)	3592.705** (1109.897)
Mean unincorporated income	-0.0009 (0.0026)
Welfare receipts	Yes**
n	262
Coefficient of Determination	0.4787

+p < 0.10, *p < 0.05, **p < 0.01. Standard errors in parentheses

The main point of the econometric exercise was to use the formula thus derived to ascertain the expected average total tax take of a council with Federation's precise socio-demographic characteristics. In simple terms, we substituted in the precise values for Federation into the formula derived in the previous step to calculate the total tax take (the mathematics is very complicated, but this is the general gist of things). Thus, we were able to arrive at a single figure that represents the average total tax take of a council with

Federation's particular characteristics (and exerting typical revenue effort) supported by very sophisticated mathematical and statistical reasoning.

In Table 6 we have used this approach to detail the total tax take *shortfall* for each of the five years that we employed in our econometric work. Readers will note that the figures move around a little from year to year in response to changes to demographics and incomes, as would be expected. Moreover, the shortfall has narrowed in the most recent year in response to the application of recent SRVs (of course, this is not precisely the percentage increase of the Federation SRV as some other councils were also implementing SRVs and in addition were also affected by changes to their demographics that naturally occur over time).

The econometric work confirms what was already pointed to by the dozens of individual metrics reviewed earlier: Federation Council has considerably greater capacity to pay. Indeed, the shortfall of revenue from the last five years alone exceeds twenty million dollars. There can be little doubt that the current serious fiscal predicament of Federation Council would have been considerably improved had an average revenue effort been extracted in the past.

Table 6: Expected Total Tax Take Predicted by the Fixed-Effects Regression, 2019-2023 Inclusive ($'000)

Council	Year	Total Tax Take Shortfall	Suggested Increase (nominal terms)
Federation	FY2019	$4,104.78	54.57%
Federation	FY2020	$4,347	56.12%
Federation	FY2021	$4,340	54.24%
Federation	FY2022	$3,920.28	45.38%
Federation	FY2023	$3,507.37	39.06%

However, the situation that Federation Council now faces is far from typical. As we have set out in the Financial Sustainability report, the community is far from sustainable and a chronic inability to fund basic road maintenance means that the implicit liabilities are now at extremely serious levels. Indeed, because a failure to adequately fund road maintenance can lead to complete failure of the road substrate matters could be hardly more serious (see our sampling exercise for the cost to bring assets to a satisfactory standard in the Sustainability report).

Council has taken both courageous and prudent steps to resolve the financial sustainability predicament that they are faced with. As we have noted in other work, most of the problems go back decades and were further exacerbated by the ill-advised amalgamation that imputed significant inefficiencies into operations. Furthermore, Council was denied a permanent SRV in recent rounds in part based on poor consultant work which failed to competently measure capacity to pay. Unfortunately, this consultant work has embedded gross misconceptions which are completely at odds with robust facts.

The community faces a stark choice. Either they avail themselves of proper facts and support the council in their efforts to mitigate a financially unsustainable model that they inherited from past administrations and poor amalgamation decisions, or they experience a significant reduction to services, likely failure of local roads, and bequeath to the next generation a very large suite of (both explicit and implicit) liabilities.

In view of this stark choice, it would be prudent to consider a SRV increase that would place Federation Council above the average tax take of its peers. The lengthy list of quite radical efficiencies that council is currently working on will not be sufficient to return the entity to sustainability. Indeed, as we show in our Efficiency report – using sophisticated empirical techniques that measure things properly – Council is already relatively efficient and the gains that are possible from this position will only have a marginal effect on matters. Debt is also not a viable option, as we will show by our econometric modelling in the Debt Report.

When considering deviations from average performance, statisticians generally talk in terms of standard deviations (a statistical measure of spread). One standard deviation from the mean would result in a *nominal* increase of 69.36 percent and would have yielded an additional $8.66 million in 2023. A one standard deviation increase from the mean would put Federation Council in the eight decile – to be more specific, there would still be some sixteen percent of rural NSW councils that extract a *higher* revenue effort from their taxpayers. An increase of 69.36 in *nominal* terms (excluding the rate cap and value of future money as well as the effect of compounding), should thus be considered a sensible ceiling on the current SRV proposal.

Indeed, various council administrations over the years have considered substantial SRVs that were not proceeded with for one reason or another. This suggests that the need for a considerable increase to local government taxation in the area has long been acknowledge. It is unfortunate that previous Councils did not show the courage and prudence of the current group – because had they done so, clearly Federation would be in a far better financial position today, and the large SRV currently being contemplated would not have been necessary. In the section that follows we will briefly consider previous ideas and the effect that they would have had with respect to the current predicament.

7 Previous SRVs Considered

We have dealt with this matter in our previous work and presented the evidence of the proposals for very large SRVs by both the former Corowa and Urana shires, at several public meetings. People at these meetings have confirmed for us that they were indeed aware of these earlier plans.

In 2013 IPART (p. 3) had already approved a 7% permanent increase to rates for Corowa Shire with respect to the 2013/14 financial year noting that 'the Council's application indicated that the special variation is part of a broader series of measures it intends to take to improve its financial sustainability'. It then approved a further four years of 7% increases for Corowa commencing in 2014-15 and ending in 2017-18. In this latter approval IPART (2014, pp. 3-4) noted the following:

- 'Council intends to use the additional revenue above the rate peg to address its growing infrastructure backlog; [and]
- the Council will commit all the additional revenue generated on funding its operational deficits which are forecasted to be around $2.9m in 2014/15, maintain current service levels and reduce its growing infrastructure backlog which is currently $44m'.

It thus seems that both Corowa Shire and the IPART understood that the local government area was in a distressed financial state, just prior to amalgamation.

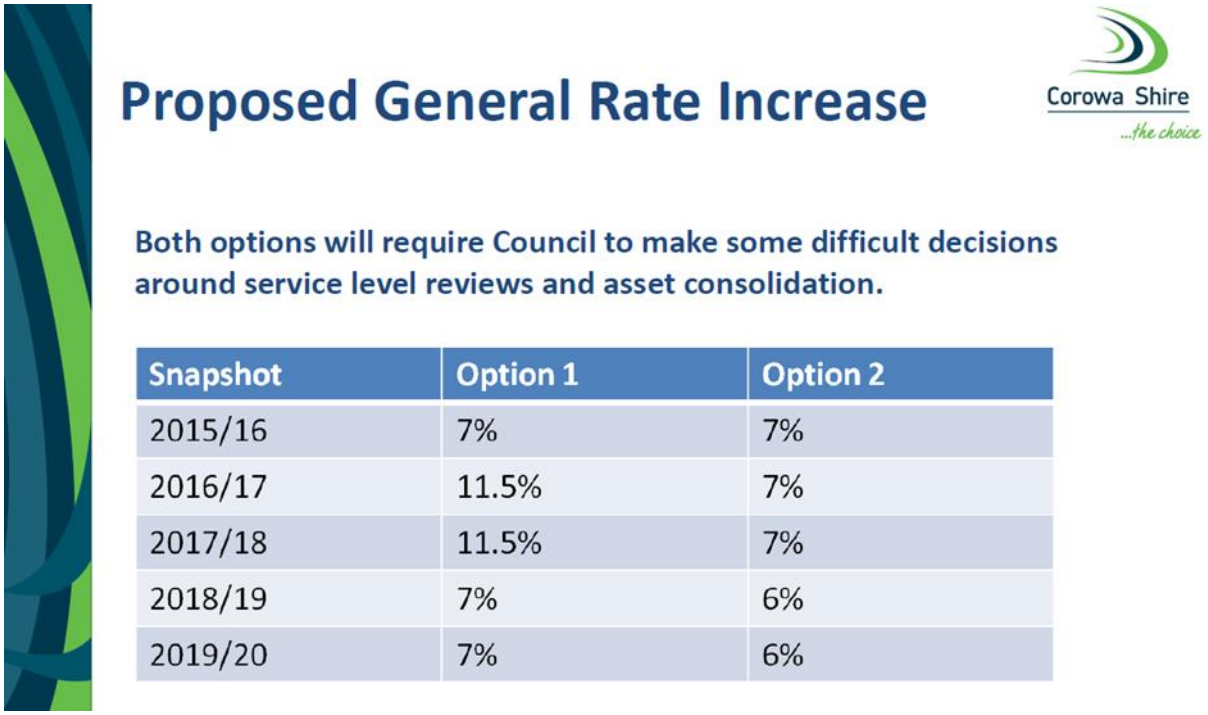
By way of contrast, Urana did not have a SRV at the time of the amalgamation, nor had it yet formally applied for one.

However, both former Councils seem to have been planning *additional* special rate variations just prior to May 2016. In Table 7 we summarise the plans that we found in Council documentation, and following this, in Figures 43 and 44 we provide screen shots of the cited documents for assurance purposes.

Table 7: Proposed Special Rate Variations Prior to Amalgamation

Council	Proposal	Cumulative Effect of Proposed SRV	Source Document
Corowa (Option 1)	7%, 11.5%, 11.5%, 7%, 7%	52.30%	'Corowa Shire Fit for the Future' presentation
Corowa (Option 2)	7%, 7%, 7%, 6%, 6%	37.65%	Ibid.
Urana	4 years of 10% rate increases (10%, 10%, 10%, 10%)	46.41%	Urana Shire Council submission to the Boundaries Delegate

Figure 43: Corowa Planned SRV



Proposed General Rate Increase

Corowa Shire
...the choice

Both options will require Council to make some difficult decisions around service level reviews and asset consolidation.

Snapshot	Option 1	Option 2
2015/16	7%	7%
2016/17	11.5%	7%
2017/18	11.5%	7%
2018/19	7%	6%
2019/20	7%	6%

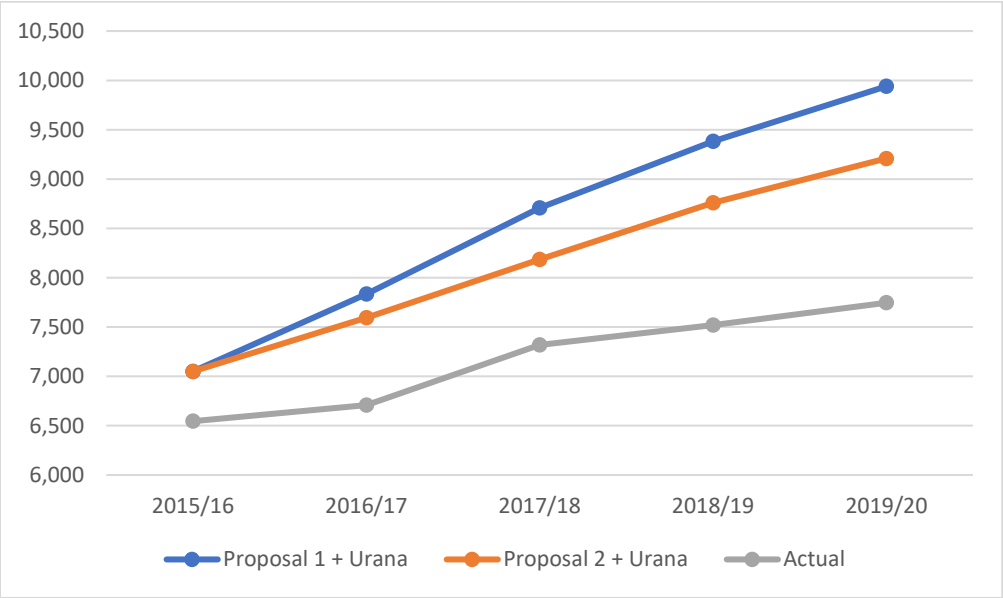
Figure 44: Urana Planned SRV

Council and the Community were naturally disappointed to be deemed 'Unfit' on an unmeasurable and subjective factor of 'Scale and Capacity'. This was after passing all of the stringent financial criteria, in an honest and realistic fashion, with a Community backed, achievable action improvement plan, including 4 years of 10% rate increases, to ensure Council reflected the wishes of our Community – that is that Council in its current form, are best placed to continue to provide for its Community into the future, as it has done for 110 years.

Of course, we have no way of knowing for sure whether IPART would have approved the planned SRVs had they been submitted. However, given the chronic financial sustainability problems of council, and earlier IPART comments (including comments in the IPART (2015) assessments of Fit for the Future proposals) it seems likely that a competent application would have been successful.

In Figure 45 we provide details of the total tax take that would have been extracted had the various SRV proposals gone ahead and compare this to the actual tax take according to the audited financial statements. We have presented one line for Corowa's Proposal 1 plus the Urana proposal, and another for Corowa's Proposal 2 plus the Urana Proposal. It should be noted that these calculations have only been done over the five-year period consistent with the proposal and that the gap between the grey line and each proposal was widening over the domain of our analysis.

Figure 45: Rate Revenue Had Previous Proposed SRVs Been Executed



Under Proposal 1 plus the Urana Proposal, a little over $7 million in additional revenue would have been collected had it gone ahead. Under Proposal 2 plus the Urana Proposal, almost $5 million in additional funds would have been yielded.

It is thus clear that had past plans for Special Rate Variations been actioned that Federation would be in much better financial sustainability position than it is at present. Moreover, the SRV required now would have been much lower. Otherwise stated, delaying a prudent SRV simply results in more pain down the track.

Indeed, it is also important to recognise that current staff and representatives were not involved in the decision to discontinue the previous SRV proposals, and hence can't reasonably be held entirely accountable for the present predicament. It was the state appointed Administrator, and the changes made by the former state government to the Local Government Act (1993, NSW), that deferred what would have been a prudent SRV back in 2015/16.

8 Measures to Improve Capacity to Pay

Much has been made of capacity to pay concerns following the recent SRV application that was only temporarily approved. As we have shown, the earlier consultant work was not competent, and the capacity to pay concerns not completely warranted.

Indeed, we could increase rates by an astounding 39.06 percent in nominal terms on 2022/23 levels, and still only be extracting an average revenue effort. We could increase rates by 69.36 percent, in *nominal* terms, and still only be located within the eighth decile relative to the revenue effort of other rural councils.

Nevertheless, it is always prudent to consider various measures that could be taken to improve capacity to pay. The single largest measure would be to improve distributive equity – although this is a lengthy process that would ordinarily take at least a year to accomplish given the need to engage thoroughly with all stakeholders. We note that this is a particularly difficult task in view of the extreme levels of heterogeneity engendered by the ill-advised 2016 amalgamation.

The second most effective measure to improve capacity to pay for people at the bottom end of the socio-economic spectrum would be to eliminate or substantially reduce the base rate. We strongly recommend that Council either scraps the base rate or adopts a much lower one set on a firmer foundation that provides a more adequate price signal. Because of the rules around this process, this is also unlikely to take place until the rates and revenue policy for 2025/26 is formulated and adopted.

Pricing goods and services correctly takes pressure off the rate pool, sends important price signals, and also promotes equity. This was a key recommendation in our earlier work, and we are aware that Council has commenced the process. Because of the large number of goods and services that attract a fee – along with the rigorous work required to establish the actual cost to Council and level of appropriate subsidy when relevant (and also the requirements under the Act) – we expect this re-pricing process to take up to three years before it is completed.

There are a number of efficiency measures that were recommended in our earlier work that Council is making steady progress on. These measures will help the financial sustainability situation but are no substitute for extracting a reasonable level of taxation from ratepayers (please see the Efficiency Report as well as council documentation on progress to-date).

We recommend that Council make changes to strengthen its Hardship Policy, as is the prudent thing to do for any local government that is considering an SRV. In this regard we have provided council with a copy of the hardship policy of a council that recently had a large SRV approved for it by IPART and encourage Councillors to adopt as many of the innovations as reasonable given the particular context and financial sustainability predicament of Federation.

Receiving a fairer allocation of Financial Assistance Grants would reduce the pressure on the tax pool at Federation. We understand that Council has written to the relevant Ministers and ask them to investigate whether the Commonwealth Local Government (Financial Assistance) Act (1995) is being correctly observed. These investigations by state and federal ministries will take some time to do. We do not anticipate that additional monies would be sufficient to allow us not to pass on the entire SRV that will be recommended – it would merely mitigate the need for future SRVs or help to more quickly redress the chronic problems at Federation.

Similarly, if the state government were to eliminate various cost-shifting devices then this would reduce the pressure on the Federation taxpayers. Once again, it would not change the recommendation for the current SRV but would allow council to mitigate the need for future SRVs, or more quickly redress its chronic financial unsustainability.

In similar vein, there is a strong case for compensation for communities forced into amalgamation based on negligent or incompetent work by commercial consultants or other parties. If the state government were to compensate Federation ratepayers for the additional costs imposed by the state government's decision, then there would clearly be less pressure on the tax pool. We understand that Council will soon be writing to seek appropriate compensation. However, we do not feel that any forthcoming compensation would be sufficient to obviate the current SRV proposal.

Indeed, we state plainly that the current proposal is not sufficient to thoroughly mitigate the chronic financial unsustainability of Federation Council. We are merely asking for sufficient additional taxation to allow Council to approach a more reasonable revenue effort and make the first strides on a lengthy financial sustainability journey. If changes are not made to grants and cost-shifting – and compensation is also refused – then we expect that Council will have to approach the community for another large SRV in around five years' time. By this time the full benefits of Councils efficiency program based on the earlier work of Professors Drew, Miyazaki and Ferreira will have borne fruit.

Two further measures might be taken to mitigate capacity to pay concerns.

Council should construct and make available coupon booklets to assist low-income earners who wish to make regular fortnightly payments towards meeting their local government taxation obligations. These booklets should be available on request and would make it simpler to make regular manageable repayments through banks and post offices.

Secondly, Council should take steps to ensure that people in the community understand that there are generally no legitimate grounds for landlords to pass on the entire cost of the SRV to renters (due to the ability for landlords to claim it as a deduction). This will reduce the burden on residents that are renting from others. In addition to this report, the matter should be aired at the public meetings and other opportunities.

9 Recommendation

In sum, it is clear beyond reasonable doubt that Federation Council does indeed have capacity to pay considerably greater local government taxes than are currently levied.

Moreover, it is disappointing that poor quality work by commercial consultants in the past has grievously misled both the community and IPART (with respect to the last SRV application).

In our Financial Sustainability report we set out our precise recommendation in cognisance of the Efficiency and Debt reports, as well as the extensive community consultations.

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