The City of Calgary

Benchmarking Calgary's Tax Responsibility Distribution

Corporate Planning and Financial Services
22 September 2022

Where Calgary Stands

In the Tax Distribution Scoping Report delivered as part of EC2021-1597, Administration committed to gathering additional comparative data on property taxes for residential and non-residential properties for five national and five regional comparators.

Table 1 2021 assessment shares, tax shares and tax rate ratios for regional and national comparators.

Type	City	2021 Non-Residential **Assessment Share**	2021 Non-Residential **Tax Share**	Non-Residential to Residential **Tax Rate Ratio**
Regional	**Cochrane**	11%	15%	1.35
Regional	**Chestermere**	5%	7%	1.42
Regional	**Okotoks**	14%	20%	1.47
National	**Ottawa**	18%	25%	1.84
Regional	**Airdrie**	16%	28%	2.10
National	**Winnipeg**	20%	36%	2.23
National	**Toronto**	18%	34%	2.61
National	**Edmonton**	23%	46%	2.85
Regional	**Rocky View**	29%	54%	3.00
National	**Vancouver**	19%	43%	3.09
	Calgary	21%	48%	3.42

Selecting comparison municipalities

Comparing and benchmarking municipal property taxes is sensitive to decisions about relevant comparators, appropriate measures, and available data. The City of Calgary surveys other Canadian municipalities annually for its *Residential Property Taxes and Utility Charges Survey,* uses standardized data collected in Alberta (e.g., Financial Information Returns, Municipal Measurement Index, etc.), and monitors other publicly available information[1].

In comparing the relative tax responsibilities of residential and non-residential properties across different municipalities, 10 comparators were chosen. Five are within the Calgary region (Airdrie, Okotoks, Cochrane, Chestermere and Rocky View County), reflecting evidence in the literature that “property tax differentials are relatively unimportant in inter-municipal or inter-regional location decisions but do play a role in intra-municipal or intra-regional location decisions”. [2] These municipalities also operate within the same provincial legislative framework, and compile and report relevant and standardized data. However, they also operate in a different context than a large city like Calgary. They offer fewer services overall and are not confronted with many of the social challenges that arise in a big city. Alberta’s Municipal Measurement Index (MMI) proposes a “municipality index” to determine which municipalities should be considered comparable, based on population, equalized assessment, and geographic

[1] For example, the comparisons found at https://www.calgary.ca/ca/city-manager/our-finances/financial-facts/compare-municipalities.html

[2] Kitchen and Slack (2012) “Property Taxes and Competitiveness in British Columbia. A report prepared for the BC Expert Panel on Business Tax Competitiveness”. https://munkschool.utoronto.ca/imfg/uploads/208/business_property_tax_competitiveness_report.pdf

area. None of the regional comparators are within the suggested +-10 “municipality index” value of Calgary.

In addition, five national comparators were chosen (Edmonton, Winnipeg, Vancouver, Toronto and Ottawa), to reflect the dynamics in other large Canadian cities. Edmonton operates within the same provincial legislative framework, compiles and reports the same standardized data, and has a similar “municipality index” as Calgary. The other cities operate under different provincial legislation, and might offer different services and levels of service, with access to different revenue streams, but provide useful comparisons as large population centres.

Again, the focus here is on how jurisdictions apportion tax responsibility to residential and non-residential properties, not overall levels of taxation, services received, or other policy decisions. The data are from 2021, unless otherwise noted.

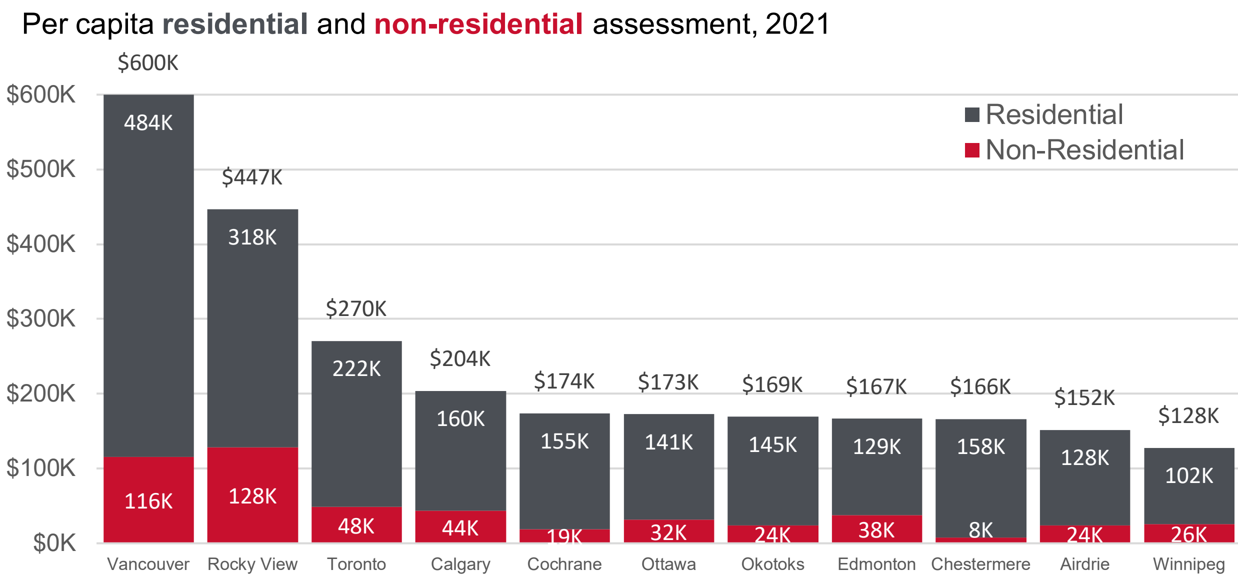
Tax base structure: value and composition

Determining tax responsibility starts with understanding some elements of the assessment base: value and residential/non-residential composition. The overall value of a municipality's assessment base is a key determinant of the property tax rates necessary to generate the municipality's tax revenues. The composition of the assessment base – the types of properties that exist in a municipality and the relative values of those groups of properties – also plays an important role in how property tax revenues are generated.

Calgary's property assessment base is similar to other comparators on a per capita basis, with Rocky View County and Vancouver's per capita assessment bases much more valuable

In the following figure, we compare the total value of each municipality's assessment base per person. As the amount of property assessment per person increases, so does the capacity to levy taxes at a low tax rate. While most comparator municipalities are within one standard deviation of Calgary's $204,000 of total assessed value per person, Vancouver and Rocky View County have significantly higher assessed values, meaning that they can levy taxes at a lower tax rate and still generate comparable tax revenue.

Figure 1 Residential and non-residential assessment per capita (2021).
Vancouver and Rocky View County have much higher non-residential, residential and total assessed values per person, which means they would need to set lower property tax rates to generate the same amount of tax revenue per person as the other cities.



The residential/non-residential composition of the assessment base can also be expressed as the assessment share, as in Figure 2.

Calgary's property assessment share is similar to big city comparators, but regional comparators are much more residential, except Rocky View County

The share of non-residential assessment is shown in Figure 2, with municipalities near the top having the highest non-residential assessment shares (Rocky View County) and those near the bottom having the lowest non-residential assessment shares (Chestermere).

Many of the municipalities fall within one standard deviation of Calgary's 21 per cent non-residential assessment share, but Rocky View County has a substantially higher proportion of non-residential value, and Okotoks, Cochrane and Chestermere have much lower proportions of non-residential value. A larger share of non-residential assessments means a municipality can collect less residential property tax, but still generate comparable total tax revenues.

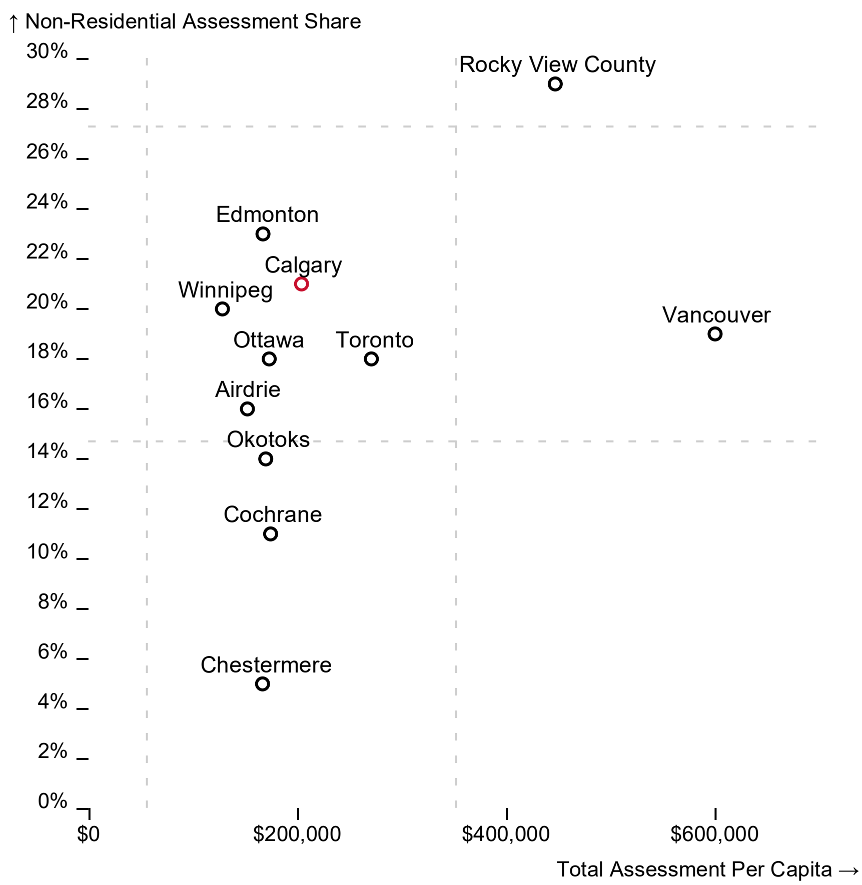


Figure 2 Structure of municipalities' tax bases (2021).

Larger total assessment values per capita allow municipalities to levy lower tax rates but still generate similar revenues per person. Higher non-residential assessment shares allow municipalities to charge lower residential rates and still generate similar revenues per person.

Calgary's non-residential assessment share is similar to other large Canadian municipalities. Rocky View County has a high share of non-residential assessment, while other smaller municipalities in the Calgary region have a lower share of non-residential assessment.

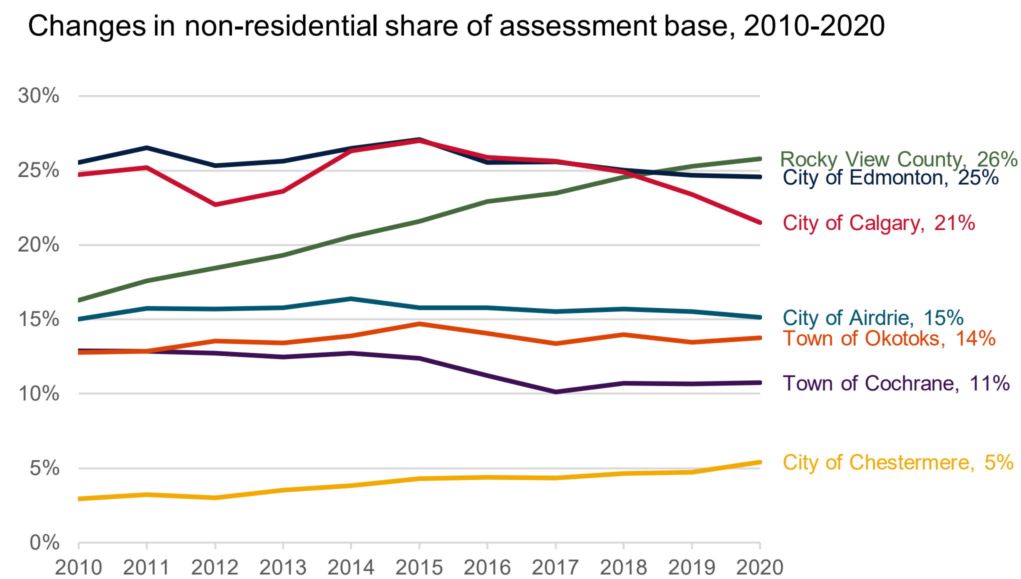
Dashed lines indicate values one standard deviation away from Calgary.

Property assessment share changes over time, sometimes dramatically

Figure 2 shows non-residential property assessment shares in these cities for a single year (2021), but assessment bases fluctuate over time and for different reasons. Figure 3 draws from Alberta Municipal Affairs' Municipal Profiles data for the regional comparators and Edmonton, from 2010 to 2020.

The non-residential share of property assessments in each municipality over time show a large increase in non-residential share in Rocky View County and Chestermere, relative stability in Airdrie and Okotoks, slight declines in Cochrane and Edmonton, and a marked decrease in Calgary since 2015.

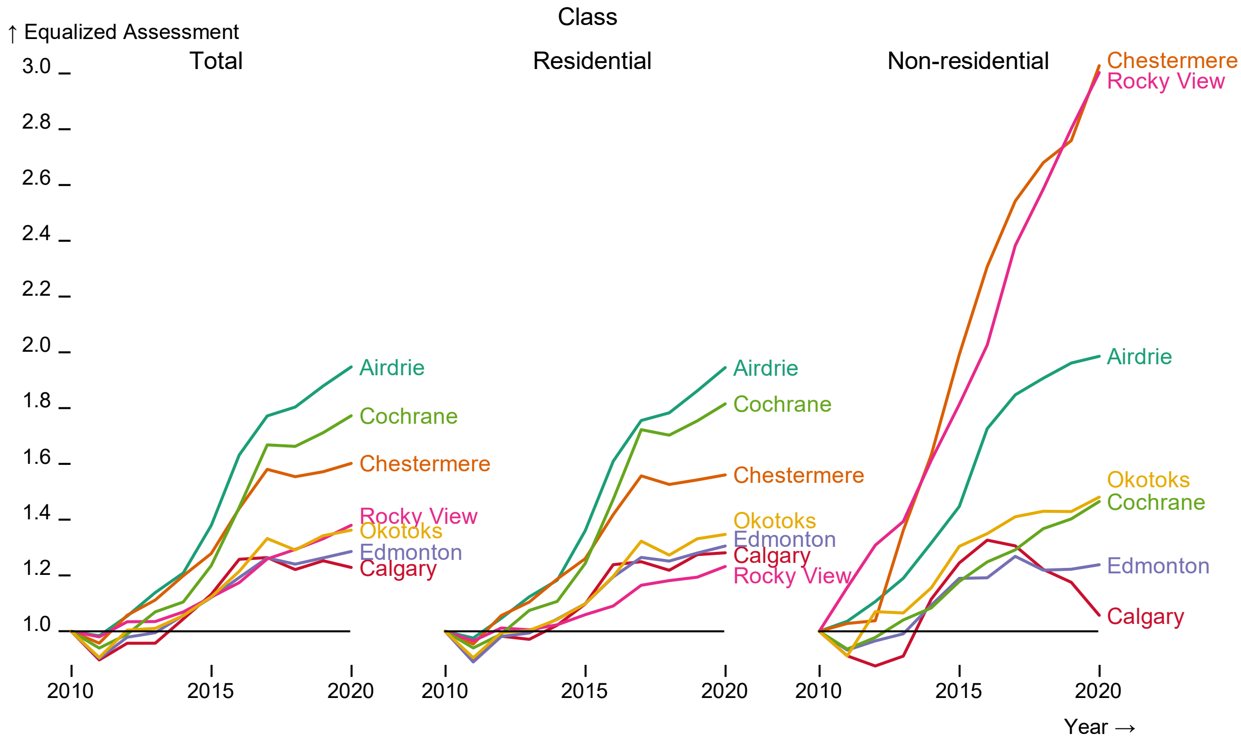
Figure 3 Changes in non-residential assessment share over time, Alberta municipalities. The comparison municipalities in Alberta have seen their share of non-residential assessments change over time in different ways.



Rocky View County's increase from 16 per cent to 26 per cent non-residential is a clear outlier in this comparison group and is due to choices made by the County to attract large scale development like Cross Iron Mills and several large distribution centers. Calgary's volatility over the period – ranging from a high of 27 per cent to a low of 21 per cent non-residential share – also stands out from the comparators in this group. Rather than being driven by development choices, this was the result of market changes, most notably the decline in office values since 2015.

These changes in relative proportions in each municipality are driven by different growth in the residential and non-residential assessment bases, as shown in Figure 4. For example, Airdrie and Okotoks have seen stable growth in both classes, keeping their share of non-residential assessments stable. Chestermere and Rocky View County have seen explosive growth in the non-residential class, with Chestermere's caused by high percentage growth over a very small initial base, and Rocky View's related to the very large developments mentioned earlier. Rocky View County has seen the slowest residential growth and Chestermere has seen above average residential growth. Edmonton's residential growth has outpaced its non-residential growth, while Calgary saw similar residential growth to Edmonton, but with volatile non-residential assessment growth over this period.

Figure 4 Growth in non-residential and residential assessment bases since 2010, Alberta municipalities.
In this chart, the equalized assessment values for each class in each municipality are indexed to their 2010 values. Changing shares of non-residential assessments are caused by differential growth in municipalities' residential and non-residential classes (excluding linear and linear railway property).



Tax policy choices

Moving from the features of the property assessment base and into tax policy choices, we start to look at the effect of tax policy decisions in different jurisdictions: the total amount of municipal property tax levied per capita, how much of that tax comes from non-residential properties, and differences in the distribution of property taxes between provincial and municipal governments.

Calgary property taxes are competitive with other big cities

Total municipal property taxes per capita are influenced by factors like the policy responsibilities of the municipality, the size of municipality and type of services residents expect, the other revenue sources available, and the political choices around appropriate levels of property taxation. Calgary falls in the middle of the comparison municipalities, with Ottawa, Rocky View County, Edmonton, Toronto and Vancouver levying more property tax per capita than Calgary (within one standard deviation of Calgary's $1,492/capita). The remaining municipalities collect substantially less property tax per capita, likely due to different service offerings (e.g., no transit service) or different levels of service (e.g., less road maintenance).

Per capita **residential** and **non-residential** municipal taxes, 2021

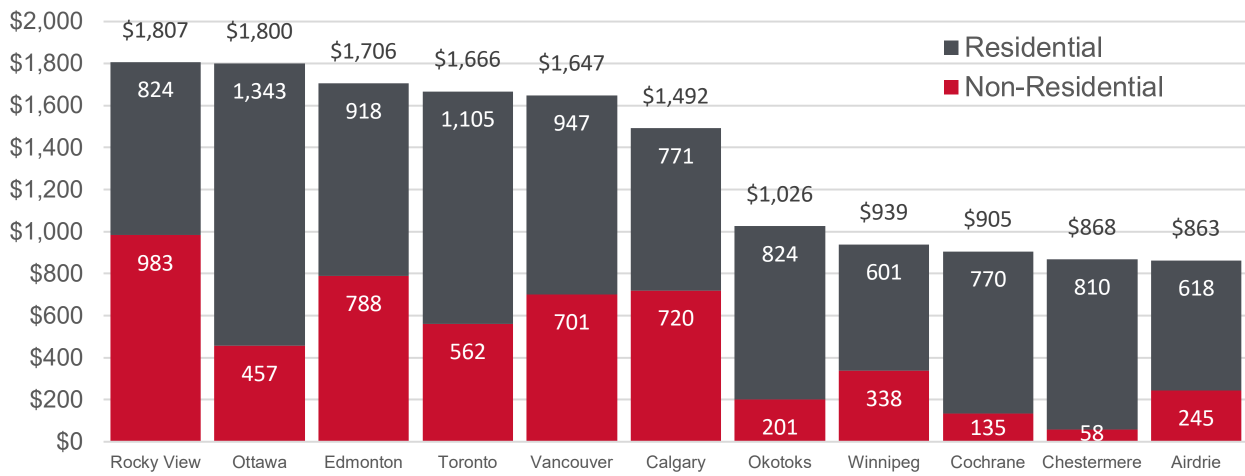


Figure 5 2021 residential and non-residential municipal taxes per capita

In the set of 10 comparison municipalities, five levy more total tax per capita than Calgary and five levy less. Calgary's non-residential tax per capita is similar to Edmonton and Vancouver, lower than Rocky View County, but higher than all other comparators

On a per capita basis, Calgary's total municipal taxes are lower than most other big cities, but Calgary's non-residential municipal taxes per capita are higher than all comparators except Edmonton and Rocky View County, who, like Calgary, have relatively high non-residential assessment shares. Calgary's residential taxes per capita are more in line with smaller regional comparators like Cochrane or Chestermere, who have much smaller non-residential assessment bases, and consequently much lower non-residential tax per capita.

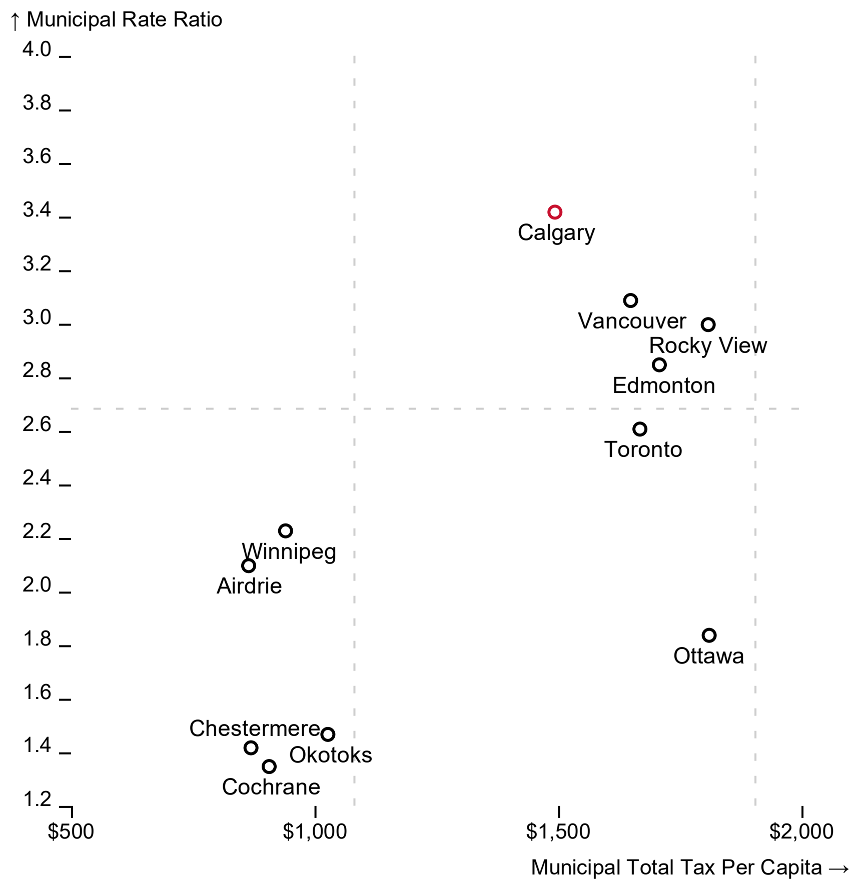
Levels of property taxation also differ across jurisdictions due to municipalities sharing this revenue source with their provincial governments.

Calgary's municipal non-residential to residential property tax rate ratio is higher than comparison municipalities

These differing levels of total property taxation lead to differing levels of taxation for different types of properties. In Figure 6, below, the non-residential to residential rate ratio (shown vertically) represents how much tax non-residential properties pay for the same assessed value as residential properties. In 2021, per dollar of assessed value, non-residential properties in Calgary paid 3.4 times what residential properties paid. This is higher than all comparison municipalities, but in a similar range as Vancouver, Rocky View, Edmonton and Toronto. The remaining municipalities, including Ottawa and Winnipeg, have much lower differentials between their residential and non-residential rates.

Figure 6 2021 total municipal property tax per capita and non-residential to residential tax rate ratio

Most of the national comparators (and Rocky View County) collect more property tax per capita than Calgary, but in 2021, Calgary had the highest non-residential to residential rate ratio.



The differences in municipal rate ratios from Figure 6 can also be seen by comparing municipalities' non-residential assessment share with their non-residential tax share. In Figure 7, Ottawa is a national outlier on the low end, with an above-average non-residential assessment share (18 per cent) and a below average non-residential tax share (26 per cent). For comparison, Toronto has an identical non-residential assessment share (18 per cent), but collects 36 per cent of its municipal property taxes from non-residential properties. The chart also includes historical values for Calgary back to 2010, showing that 2021 represents the lowest share of non-residential assessments and taxes in Calgary in more than a decade.

Figure 7 National and regional averages, 2021

Two trend lines show the estimated relationship between non-residential tax share and non-residential assessment share across different groups of municipalities. The blue line estimates the relationship among the 5 national comparators. The lower line (purple) estimates the relationship among the 5 regional comparators. In 2021, Calgary's non-residential tax share is higher than would be expected for its assessment share, relative to either group of comparators. The red circles show values for Calgary from 2010 to 2020, illustrating the historically low current non-residential assessment share, and the impact of the 2020 Council-directed change in non-residential tax responsibility to 48%.

A lower non-residential tax share would bring Calgary closer to the average for a given non-residential assessment share.

The lines in Figure 7, represent the average non-residential tax share for a given non-residential assessment share among the national and regional comparators. The blue trend line represents the average among the national comparators, and indicates that in 2021 Calgary collected an above-average share of tax from non-residential properties, given the non-residential share of the assessment base.

Because most jurisdictions have both municipal and provincial property taxes, the property tax decisions made by provincial governments should also be considered in comparing across jurisdictions. In Ontario and Vancouver, provincial property taxes account for a higher share of non-residential property tax bills, so the combined municipal and provincial non-residential tax share moves higher, while including provincial property taxes in Alberta moves the combined shares lower.

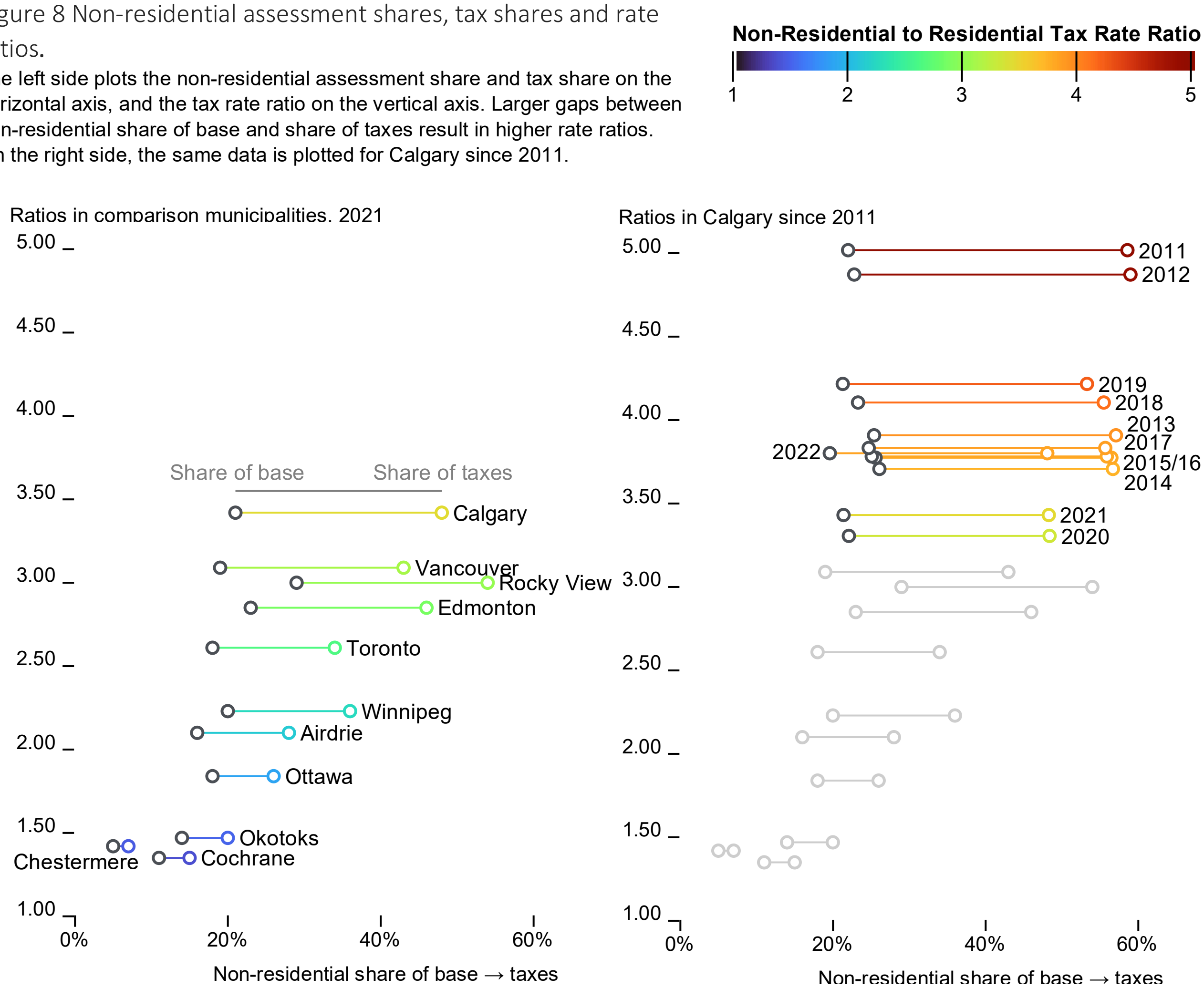
Table 2 Non-Residential Tax Shares including Provincial Property Taxes

	2021 Non-Residential Tax Share		
Municipality	Municipal	Combined	Provincial Impact
Rocky View	54%	45%	-9
Vancouver	43%	45%	+2
Edmonton	46%	44%	-2
Calgary	48%	43%	-5
Toronto	34%	41%	+7
Winnipeg	36%	36%	--
Ottawa	25%	32%	+7
Airdrie	28%	26%	-2
Okotoks	20%	20%	--
Cochrane	15%	15%	--
Chestermere	7%	7%	--

The larger the gap between non-residential properties' share of the base and their share of the taxes, the larger the tax rate ratio. As shown in Figure 9, in 2021, Calgary had the highest ratio among the comparison municipalities (left), but that ratio is much lower than it has been in the past decade (right), owing largely to the adjustment in tax responsibility from non-residential to residential in 2020. Changes in Calgary's tax rate ratio over the past decade are largely the product of relative changes in market assessments, offset by adjustments to tax responsibility through business tax consolidation and specific Council-direction.

Figure 8 Non-residential assessment shares, tax shares and rate ratios.

The left side plots the non-residential assessment share and tax share on the horizontal axis, and the tax rate ratio on the vertical axis. Larger gaps between non-residential share of base and share of taxes result in higher rate ratios. On the right side, the same data is plotted for Calgary since 2011.



In 2021, Calgary had a relatively high share of non-residential taxes given its non-residential assessment base, leading to a higher tax rate ratio. Adjusting the non-residential tax share down towards Edmonton's 46 per cent or Vancouver's 43 per cent would lower this ratio and bring Calgary more in line with some of its national comparators. However, Calgary currently has a lower share (and ratio, and base) than it has seen in more than decade. In 2020, Council directed an adjustment of tax responsibility away from non-residential properties, bringing the share down to 48 per cent and the ratio below 3.5. In 2022, the continued decline in non-residential assessment share has increased the ratio back in line with the 2013-2017 period.

Property taxes per square foot

In addition to aggregate comparisons across municipalities, we can look at how these structural elements and policy choices translate into taxes for individual properties. The *Residential Property Taxes and Utility Charges Survey* goes into detail on the taxes and fees paid by average, median and typical residential properties. In 2020, the survey also began asking about non-residential property taxes per square foot for downtown office and big box retail. The 2020 survey found that for both property types, Calgary has above average taxes per square foot than the regional comparators, but low or moderate taxes per square foot relative to the Canadian comparators (note: the national comparison cities are very different, with only Winnipeg appearing both in that data and in this report).

This report gathered data for an example property representing four different property types in each municipality: large industrial, big box retail, AA office, and standalone fast food. For each example property, square footage and municipal property tax liability were calculated to provide standardized comparisons.

Table 3 Comparisons of property taxes per square foot for an example property in each city and property type
Dollars of property tax per square foot calculated based on available square footage and tax data for 35 properties.

	Large Industrial	Big Box Retail	AA Office	Standalone Fast Food
	$ of property tax per square foot			
Cochrane	0.60	1.26	N/A	2.57
Chestermere		0.83	N/A	2.91
Rocky View	0.69	0.93	N/A	4.43
Winnipeg	0.93	1.97	2.22	4.81
Airdrie	1.57	1.52	1.47	5.00
Okotoks	1.76	1.26	2.09	5.26
Toronto	1.34		6.33	
Calgary	1.74	2.86	4.93	12.45
Edmonton	1.65	4.08	5.76	9.86
Vancouver	1.98	4.09	4.96	15.34
Ottawa			9.39	
Average	1.36	2.09	4.64	6.96
Avg. National	1.53	3.25	5.60	10.62
Std. Dev.	0.47	1.21	2.48	4.25

In the full comparison set (5 national and 5 regional), Calgary lands 8th out of 11 municipalities, averaged across the 4 example properties, with the regional comparators having lower property taxes per square foot for all property types. Compared to its 5 national peers, however, Calgary has below average taxes per square foot for the office and big box retail properties and is slightly above average in large industrial. Calgary is also above average in the stand-alone fast-food example, but for this property type and the big box retail property type, there was no data available for Toronto or Ottawa.

Rocky View County in Focus

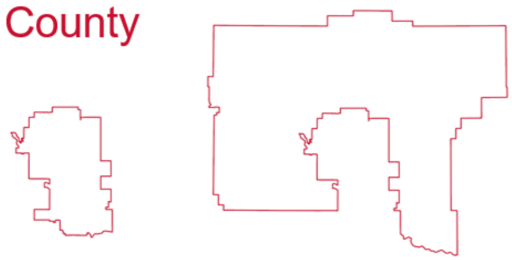
In recent years, Rocky View County has seen an explosive increase in non-residential development around Balzac, directly north of Calgary. Though this has led to some concern about tax competition for new development between the two jurisdictions, it is important to note that The City competes with Rocky View County on the tax/service mix and not taxes alone.

On taxes, Rocky View County has structural advantages that arise from its: (1) proximity to The City's labour and consumer markets that allow for extensive commercial development; (2) low population; (3) acceptance of lower service levels by residents, who are typically wealthier and willing to pay for the private delivery of some services and can use nearby City services.

Table 4 Comparison of Calgary and Rocky View County

Table highlighting how the adjacent county, with 30% higher median incomes and 194% higher non-residential assessment per capita, can collect 21% more property tax per capita while charging lower property tax rates than Calgary.

Comparing to Rocky View County



	Calgary	Rocky View County
Population	1,306,784	41,028
Median family income	$105,060	$136,250
Non-residential assessment per capita	$43,628	**$128,443**
Non-residential property tax per capita	$720	$983
Residential property tax per capita	$771	$823
Total property tax per capita	$1,491	$1,806
Non-residential property tax rate	.016513	.0076535
Ratio	3.42	3.00
Non-residential share	48.5%	55.0%

*2021 data for all comparisons except for median family income which is from 2019.

Proximity to Calgary's labour and consumer market has enabled Rocky View to attract large scale commercial development that far outweighs the population of the County. Rocky View's non-residential assessment per capita is nearly three times higher than Calgary's. This is important because it allows Rocky View to charge a much lower tax rate to generate a higher amount of tax per person. Given these structural advantages in Rocky View, Calgary is not able to compete on taxes alone. If Council is interested in lowering non-residential taxes to better position Calgary relative to the County, the best path to do so would be to change the distribution of taxes between residential and non-residential taxpayers.

With respect to municipal services, The City provides a much wider service offering than the County. The City offers a robust transportation network, a sophisticated transit system, affordable housing, many maintained parks and a diversified set of recreational opportunities. The County either does not offer those services (e.g., transit) or offers a lower level of service than The City. On a per capita basis, The City collects less tax than Rocky View County even with a much more extensive service offering. Furthermore, when compared to other large cities where similar services are offered, Calgary is very competitive overall on taxes per person.

Summary

As we have seen throughout this report, no two municipalities are the same, all benchmarking data has strengths and weaknesses, and these factors should be considered when situating Calgary's property tax system in the broader context.

Based on the analysis above, Calgary offers lower levels of total per capita taxation compared to its national peers, and offers especially low levels of residential taxation per capita, at a level similar to its smaller regional comparators (Figure 5). This is achieved by relying more heavily on non-residential properties than any comparator (Figure 7, Figure 8), other than Rocky View County (Figure 5, Table 3).

At the level of individual properties (Table 2), however, the aggregate trend of higher non-residential taxation in Calgary does not seem to put it out of step with its national peers. More should be done to collect and verify individual property-level comparisons across jurisdictions, and The City has existing benchmarking initiatives like the *Residential Property Taxes and Utility Charges Survey* that are well-suited for this purpose.

A point-in-time snapshot of 2021 is instructive, but Calgary's property tax base continues to change, and so do the tax bases of the comparison municipalities. We know that these measures have not been static in Calgary over the past decade (Figure 3, Figure 4, Figure 7), and we can assume that is not the case anywhere else (Figure 4). But, compared to its peers in 2021 (Figure 7) and compared to itself in 2020 (Figure 8), Calgary levies a larger share of non-residential taxes than its share of non-residential assessment values would predict.