

Breaking Ground, Breaking Barriers

Land Use Regulations and the
Impact on Housing in Canada

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Abstract

This paper investigates the role of municipal land use regulation in shaping housing affordability and supply outcomes across Canadian municipalities. Drawing on data from CMHC's Municipal Land Use and Regulation Survey, which covers over 400 municipalities representing nearly 80% of the Canadian population, the study utilizes a composite index to quantify regulatory strictness and its subcomponents, including approval delays, rezoning practices, and developer requirements. Using an instrumental variable analysis, the paper finds that a 10% increase in regulatory strictness is associated with a 14% increase in house prices. It further finds that a one log point increase in the regulatory strictness measure leads to a 1.6 percentage point decrease in the annual growth rate of the housing stock. Among regulatory themes, approval delays and rezoning approval rates emerge as key predictors of affordability outcomes. The paper contributes to the Canadian literature by moving beyond correlation to establish causal relationships, expanding the scope of data, and adapting methodologies from U.S.-based studies to the Canadian context. These findings underscore the importance of streamlining municipal processes and reconsidering regulatory burdens to address Canada's housing supply gap and affordability crisis.

Introduction

Canada continues to face an overwhelming [housing supply gap](#) that poses major challenges to affordability. For several decades, housing demand has outpaced supply, contributing to rising prices and limited options for renters and owners alike. While real incomes have grown modestly, housing costs have surged, underscoring the structural imbalance between supply and demand. Addressing this gap remains a central priority for policymakers, planners, communities, and most importantly, the Canadians who have been negatively impacted by our affordability challenges.

The development of new housing can be directly influenced by many elements of land use regulation. For example, stringent zoning restrictions, lengthy approval times, and regulatory complexities can impede upon the development of new housing projects. These practices - which can often provide other benefits to the community - can also contribute to housing shortages and affordability crises. Striking a delicate balance between the imperative to build new housing and the imperative to maintain responsible land use practices remains to be a pivotal challenge for policymakers and planners alike.

Fortunately, CMHC's Municipal Land Use and Regulation Survey sheds light on many of the important considerations of land use planning and regulation. A set of preliminary findings from CMHC (2023) found there to be a strong correlation between stricter land use regulation and more unaffordable housing. Among key regions, this measure was strongest in the Greater Toronto and Metro Vancouver areas, while being lower in the Prairies and in Atlantic Canada. Within the total composite regulation measure, lengthier approval times were found to be the strongest associated survey theme with more unaffordable housing.

This research report seeks to go beyond [the previously documented correlation](#) to isolate the unique contribution of land use regulation on house prices, housing supply and affordability. By diving deeper into the data on municipal land use practices and regulatory strictness, we come to several important conclusions. Notably, we find:

- A 10% increase in the regulatory strictness of a municipality is associated with a 14% *increase* in house prices.
 - *Regulatory strictness*¹ contains several themes, including approval times, development approval requirements, minimum lot sizes, involvement from courts and tribunals, and many more.
 - For context, the Toronto CMA has a regulatory strictness score that is 15% higher than that of the Montréal CMA.
- A similar analysis finds that 1 log point increase in the regulatory strictness of a municipality leads to a 1.6 percentage point *decrease* in the annualized growth of the housing stock.
- Among survey themes, lengthier approval times remain to be a strong concern because of their linkage with more unaffordable housing at a municipal level.
 - Other considerations, including the number of stakeholders needed to approve new developments, and rezoning approval rates were found to be important factors.
 - Altogether, the composite measure shows that the overall strictness of the portfolio of regulation is important for understanding housing supply and affordability differences across Canada.

¹ This is a measure developed by Statistics Canada, which intends to summarize most elements of the survey into a single measure of how restrictive or not the regulatory framework is within a city (similar to the U.S.-based Wharton Survey). The full methodology of its construction is available on request from [Statistics Canada](#).

Much of the existing literature connecting municipal land use regulation with housing affordability and supply is rooted in U.S.-based research, where data availability and variation have enabled more robust empirical analysis. In contrast, Canadian studies often face limitations related to the scope of the data, which can constrain their ability to move beyond identifying correlations. This paper offers a valuable contribution by addressing these gaps, by expanding the scope and sample of the data used, and applying methods that help establish causal relationships. In doing so, it strengthens the evidence base for understanding how local regulatory environments influence housing outcomes in the Canadian context.

This study is sister to a [CMHC-commissioned qualitative research](#) project that was conducted to identify the systemic barriers that most affect the supply-side in our planning systems. This Roundtable Series was explored through 10 regionally-oriented roundtables across Canada, which brought together key stakeholders in the housing system. Participants identified what they saw as the main barriers within their respective areas of expertise. In order of significance, stakeholders in the roundtable series cited: community opposition, development costs (including also construction costs and skilled labour shortages), planning systems and requirements, rezoning, lack of data, post construction challenges (operational costs, maintenance, utilities, property taxes), aging infrastructure and subsidies.

As Canada continues to grapple with immense housing affordability challenges, innovative solutions and changes from the status quo will be required. Analysis from this study suggests that municipalities should carefully assess current and future regulations and approval processes, weighing the possible benefits against possible costs to developing more housing supply. Doing so can strike a more precise balance between ensuring fairness for those facing housing affordability struggles and achieving broader community goals. Tackling Canada's supply gap requires swift action across stakeholders, with municipalities being at the forefront of approving new housing. Implementing effective mechanisms for housing development will cultivate more inclusive communities and steer Canada toward a stronger future.

Our study drew on data collected in 2023, using 2022 as the reference year to establish a baseline for housing market conditions before many key and important reforms. Since the development of the survey, a growing number of municipalities across Canada have introduced an array of new and innovative measures aimed at increasing housing supply. These efforts reflect a broader shift in local policy thinking, with all levels of government recognizing the urgency of addressing longstanding housing shortages and affordability challenges. Among the most notable initiatives are zoning reforms that allow for as-of-right higher-density residential development, such as permitting multiplexes in traditionally low-density neighbourhoods. Additionally, the adoption of digital tools like e-permitting has helped streamline the approval process for new housing projects.

While the full effects of these measures may take time to materialize—especially in terms of tangible improvements to housing supply and affordability—they signal a meaningful commitment to tackling structural barriers to development. Importantly, these changes highlight the critical role that local governments play in shaping housing outcomes, and the growing recognition that easing regulatory constraints is essential to enabling more housing growth. As such, the evolving policy landscape since 2022 provides important context for interpreting our findings and underscores the dynamic nature of housing reform efforts at the municipal level.

In what follows, this research report will discuss the development of the survey program, a brief literature review of related studies in Canada and abroad, provide quantitative analyses motivated by the composite Municipal Land Use and Regulation Index, then take a deeper dive into the sub-components of the survey before concluding.

Data

The 2022 Municipal Land Use and Regulation Survey was developed with the intention of addressing a critical data gap in Canada. The presence of this data will allow researchers to conduct objective, evidence-based analyses that can help shed light on the possible relationships shared between land use regulation, affordability, and housing supply outcomes.

This survey was conducted over the first half of 2023, with 2022 serving as the reference year of analysis. Each surveyed municipality was asked a set of over 100 questions and sub-questions. Its scope delves into a number of aspects related to land use planning and regulation, including the degree of involvement from city councils, local planning commissions, community organizations, rezoning approval rates, environmental assessments, mandatory parkland dedications, lot size requirements, and approval times (among others). Some example questions drawn from the survey include:

- What is the typical length of time required to complete the review of a development project which requires a change in zoning for this jurisdiction (in weeks)?
- For development projects that require rezoning, which of the following are required to approve residential land-use changes? (then followed by a list of options, including city council, environmental assessments, design review panels, and more).
- Please indicate the impact the following factors have in acting as a constraint to residential development in this jurisdiction for multi-unit buildings. (then followed by a list of options, including cost of new infrastructure, community opposition, length of rezoning review process, budget constraints and more).

The full questionnaire is comprehensive. Due to its immense length, it will not be discussed in full detail within this paper. However, it is available to interested readers at the link from Statistics Canada [here](#).

In total, 417 cities were surveyed, representing nearly 80% of the Canadian population across all regions, including the North.² Municipalities were selected for surveying to satisfy several key needs from a data perspective, including: covering a large proportion of the Canadian population, providing sufficient sample sizes at a regional level, and covering a diverse set of municipalities (i.e. urban/rural, dense/non-dense, different demographics, topographies, economic characteristics, community priorities, etc.). As a related consequence of this, we find that this portfolio of surveyed municipalities also exhibits a wide variation in housing affordability (as measured by a house price to income ratio). Having a diverse set of municipalities will allow for stronger research potential to see how land use policy intersects with affordability and new supply growth.

Through the surveying process, CMHC and Statistics Canada achieved a response rate of 87%. Most regions experienced very high levels of survey response rates, which were as high as 97% in New Brunswick. Only one region had a relatively low response rate – Newfoundland and Labrador – of which only one in three municipalities participated in the survey. In Appendix Table A.1. we explore key characteristics from the Canadian census of municipalities who did and did not fill out the survey. On average, we find that these two groupings of municipalities have very minimal statistical differences.

² Canada contains several thousand municipalities, and surveying all of these can be a resource intensive process. Hence, the decision to sample in this manner was based on population, regional representation, and diversity of municipality type.

Statistics Canada also compiled the raw survey data to construct two categories of measures. The first – the Municipal Land Use and Regulation Index - describes the degree of how strict or not a municipality’s overall regulatory framework is according to the survey data. It can be thought of as a total measure that summarizes the data contained in the survey for each municipality. Second, there are a number of “sub-indices” in the survey, which similarly summarize elements of the survey for certain themes, including, but not limited to:

- The Approval Delay Index – Measures the total average number of weeks a municipality estimates to take to complete the following: review a development project that requires a change in zoning, review a development project which does not require a change in zoning, process an application for rezoning and then issue a development permit and process an application for a building permit and then issue the permit. The time to complete each process is differentiated by building types.
- The Municipal Zoning Approval Index – which measures the amount and degree of requirements necessary to approve residential land use changes that require rezoning in a surveyed municipality.
- The Municipal Developers Regulation Index – which measures a degree of requirements that developers must comply with in order to build in the municipality.

The methodology document describing the full set of indices developed and their components is available upon request from Statistics Canada [here](#), and is inspired by Gyourko et al. (2008; 2021).

It is worth noting that this survey predates key legislative changes at the provincial level (such as Bill 23 in Ontario, and Bill 44 in British Columbia), as well as other changes stemming from the Housing Accelerator Fund, which provide incentives for changes in land use regulation, including as-of-right zoning for higher density housing and increasing the efficiency of municipal processes. As such, the development of this survey creates a strong baseline that can then be used to understand historical patterns.

We must also emphasize that this survey is coming from the perspective of representatives at municipalities who chose to fill out the survey. This perspective could create potential for response bias, where in contrast, the perspective of a developer may differ significantly from that of a city for less clear-cut themes like approval times.³

Literature

The development of this survey was inspired heavily by similar programs in the United States. In a major contribution, Gyourko et al. (2008) develop the “Wharton Land Use and Regulation Index”, a tool which is used to quantitatively assess the stringency of local land use regulations among a large sample of municipalities in the United States.⁴ By providing an objective and standardized measure, the index enables researchers to quantify the impact of regulatory variations on housing affordability and supply.⁵ Their findings indicated a strong correlation

³ Who bears the burden of approval times between developers and municipalities is another consideration that is less clear-cut.

⁴ While WLURI inspired the Municipal Land Use and Regulation Survey’s design, it is tailored to the Canadian context, capturing local regulatory environments and planning processes to support housing policy analysis across Canadian municipalities.

⁵ The U.S. and Canadian land use regulation systems share similarities in the most important areas—such as zoning, permitting processes, approval times, community opposition and more—but differ slightly in some key structural and institutional ways. In Canada for example, provinces have constitutional authority over municipalities, leading to more centralized oversight and variation across provinces. In contrast, U.S. municipalities often operate with greater

between more restrictive land use regulations and higher housing prices. Though a more comprehensive survey, Gyourko et al.'s (2008) seminal work verifies other analysis at a more regional level documenting this same association (prominently within California, see: Glickfeld and Levine, 1992; Quigley et al., 2008).⁶

These survey programs are part of a broader literature which highlights how varying regulations can impact housing affordability and new construction. Regulation(s) can offer benefits such as ensuring safety and protecting the environment, but they can also introduce costs that are important for housing affordability, such as restrictions on density, higher development expenses, and lengthier approval times.

While not exhaustive, there are a number of different mechanisms in which regulation, or related concepts can impose significant costs on the development of new housing. Some examples from the literature include:

- **Approval times:** Mayer and Somerville (2000) found that a 1 month increase in the time for subdivision approvals led to a 10 percent reduction in building permits among 44 of the largest U.S. metropolitan areas.
- **Growth management:** explicit caps on new development have been shown to increase house prices and reduce new supply (Katz and Rosen, 1987; Mayer and Somerville, 2000).
- **Minimum lot sizes:** Glaeser et al. (2006) find in metro Boston that a minimum lot size increase of a quarter acre was associated with a ten percent reduction in the new supply of housing. Of course, as land becomes more scarce, one should expect housing to cost more over time.
- **Homeowner opposition to growth:** community opposition or so-called NIMBYism (Not in my Backyard) has been theorized by Fischel (2001a, 2001b), as homeowners working together can restrict new development as a way to insure against potential negative shocks to housing wealth.⁷
- **Zoning decisions:** a literature review from Freemark (2023) concludes that upzoning (allowing for more / typically denser housing) has had mixed impacts on affordability and new supply, which depend greatly on a number of other factors. Downzoning, meanwhile, has had a more unanimous outcome in both limiting the development of new housing, and also leading to more unaffordable housing.
- **Building codes:** Noam (1982) obtains data from over 1,100 U.S. municipalities, and develops an index of strictness of the local building code. In a regression analysis, Noam finds a statistically significant association with house prices, illustrating that communities with more strict building codes had more expensive housing, controlling for other characteristics.
- **Development Charges:** which are imposed on developers to support municipal infrastructure. These fees typically raise prices for new and existing housing proportionately or greater than the size of the fee (Delaney and Smith, 1989; Singell and Lillydahl, 1990; Dresch and Sheffrin, 1997; Mathur et al., 2004; Burge, 2008). On the supply-side, Skidmore and Peddle (1998) find that the implementation of impact fees leads to reduced development, while Burge and Ihlanfeldt (2006) find that impact fees are associated with increased construction in inner suburban areas, but not in outer suburbs or inner cities.

The literature in Canada, compared to the above studies, tends to be scarce, although preliminary works have validated many of the observations seen in the United States. In a seminal work, Green et al. (2016)

local autonomy. Thus, some differences can be shaped through institutional structure but remain similar at their core.

⁶ Gyourko and Molloy (2015) discuss a broader/larger set of these related survey programs.

⁷ For a theoretical work on this subject see Ortalo-Magné and Prat (2014).

investigate the impact of land use regulation within Canada on housing stock growth between the 2006 and 2011 censuses. Green et al.'s (2016) survey asks about various measures including approval timelines, timeline uncertainty, council and community impacts, costs and fees, and rezoning prevalence. Similar to the Municipal Land Use and Regulation Survey, a composite index is also developed. The author's composite index of land-use regulation is built from five components: average approval timelines, uncertainty in those timelines, the influence of councils and community opposition, regulatory costs and fees, and the frequency of rezoning requirements. These factors are combined to measure the overall restrictiveness of land-use regulation in Canadian municipalities.

In total the authors' regression analyses consist of between 48 and 68 municipalities. These linear regression analyses reveal that more regulated areas experienced lower growth rates of the housing stock, even after controlling for other factors. For example, one key finding shows that an increase of six months in the average approval timeline for a new development was correlated with a 3.7 percentage point decrease in supply growth, and is supported by additional findings from CMHC (2023). Furthermore, Green et al. (2016) find that heightened timeline uncertainty, opposition to growth from council and community groups were also strong predictors of lesser supply growth. Higher costs and fees on developers exhibited a more modest but still significant negative effect on the growth of the housing stock. Further work in CMHC's (2018) escalating prices report also raised concerns about channels between stricter municipal land use regulation, and rapid price growth in Canada's major urban markets.

Since then, the CHBA (2025) has also provided survey data through its ongoing *Municipal Benchmarking Study*. These reports examine how municipal processes, including approval times, fees, and planning system features vary across a set of 23 municipalities. It found that approval timelines ranged with a high variance from 2 months in Saskatoon to 31 months in Hamilton, and that municipal fees for low-rise homes varied from \$8,700 in Moncton to \$195,300 in Toronto. The report also highlights best practices and policy recommendations to help municipalities streamline development and reduce housing costs. While it is an important contribution – especially from a longitudinal perspective – the limited sample size makes statistical inference on this data difficult, and might not also be nationally representative.

This association and concern from these studies emphasize the need for more comprehensive data programs like the 2022 Municipal Land Use and Regulation Survey, and the related research that follows in the sections below. This study expands the literature with (i) an expanded set of questions/scope from the Municipal Land Use and Regulation Survey, (ii) a representative sample that expands previous Canadian studies by several multiples, and (iii) an instrumental variable analysis which is better equipped to handle cause-and-effect.

Housing Tends to be More Unaffordable in Areas Where Regulation Scores are Higher

We begin our analysis of the data with the composite measure – the Municipal Land Use and Regulation Index – which captures the degree of how strict or not a municipality's regulatory framework is. Shown in Table 1, this data contains a set of key regions, whether they be a province or major Census Metropolitan Area (CMA). Since the units of the Municipal Land Use and Regulation Index do not have a straight-forward interpretation,⁸ we have normalized their values such that the Toronto CMA is set to a value of 100. For comparison, the London CMA with a value of 75 would have a land use strictness score that is 25% lower than that of Toronto.

⁸ This is because the survey combined multiple forms of qualitative information and is indexed to a set of units that are not easy to be interpreted.

Table 1: Municipal Land Use and Regulation Index by Region

Province / Census Metropolitan Area (CMA)	Municipal Land Use and Regulation Index (Toronto CMA = 100)
Victoria	110
Vancouver	106
Prince Edward Island	102
Toronto	100
Kelowna	99
Kitchener – Cambridge – Waterloo	98
Nanaimo	93
Territories	91
Moncton	90
St. Catharines – Niagara	90
British Columbia	89
Windsor	88
Ontario	86
Saint John	85
Montréal	85
Ottawa – Gatineau	84
Quebec	84
Edmonton	82
New Brunswick	82
Manitoba	80
Fredericton	77
Saskatchewan	76

Alberta	75
Nova Scotia	75
London	75
Québec City	75

Notes: Calculations by the authors using data from the 2022 Municipal Land Use and Regulation Survey. This table was also previously published by CMHC (2023).

Table 1 offers a number of key insights from a regional perspective. For example, the housing markets in the Toronto, Victoria, and Vancouver CMAs are demonstrated to have the strictest land use regulations, have also experienced immense challenges with housing affordability. More stringent regulations in these cities can contribute to higher costs of construction, and ultimately higher home prices – a process that can compound over time. However, it is also worth mentioning that developing housing in these dense and populous cities comes with other challenges, including limited land and coordinating with infrastructure constraints.

Conversely, towards the bottom of the table we find the provinces of Saskatchewan, Alberta and Nova Scotia. These provinces have comparatively less regulatory constraints (about 25% less than the Toronto CMA), have relatively more affordable housing. The reduced regulatory burden in these regions could allow for a more efficient and responsive housing market, facilitating a higher growth rate in new supply and, consequently a more balanced supply-demand dynamic. It is worth mentioning that this correlation is not perfect, as some regions, such as Prince Edward Island, have high regulation scores, but also have generally more affordable housing. Affordability is a mixture of both short and long-run supply and demand considerations, and regulation is thought to be one important piece of a very complex puzzle.

Across the broader sample of municipalities it is also meaningful to demonstrate how their housing, demographic and economic characteristics differ. This is demonstrated by looking at three equally sized groupings of municipalities (i.e. containing the same number of municipalities), which are sorted from top to bottom as “Least”, “Middle” and “Most” regulated, according to the Municipal Land Use and Regulation Index. These results are shown in Table 2.

Table 2: Characteristics of Municipalities by Regulation Grouping

	Least-Regulated	Middle-Regulated	Most-Regulated
Average Municipal Land Use and Regulation Index (Middle = 100)	77	100	130
Average House Price (2021)	\$386,500	\$510,900	\$699,600
Average Rent (2021)	\$980	\$1,100	\$1,290
Average Population (2021)	48,800	70,000	106,800
Population Growth (%; 2006-2021)	11.3	11.5	20.2
ln(Population Density; 2021)	4.49	4.82	5.32
Median Household Income	\$80,800	\$84,000	\$90,300

Employment Rate (%; 2021)	57	57	57
Average House Price / Median Household Income	4.78	6.08	7.75

Notes: Calculations from the authors using data from the 2022 Municipal Land Use and Regulation Survey, 2006 and 2021 Canadian census. “Least”, “Middle” and “Most” regulated are three equally sized groupings of municipalities, which are sorted from top to bottom as according to the Municipal Land Use and Regulation Index. Ln = natural log.

The data in Table 2 reveals notable variations across regions categorized by these three groupings of regulation. Starting with the Municipal Land Use and Regulation Index, where the average least-regulated area is 23% less regulated than the average middle-regulated market, while the average most-regulated area stands as being 30% more regulated than the average middle-regulated market. This pattern is mirrored in the housing market metrics, as the least regulated grouping has an average house price of \$386,500, while the most regulated area has an average price of nearly \$700,000. A similar pattern is also observed among average rent seen within these groupings.

Population levels are also shown to exhibit considerable variation across these groups, with the least-regulated municipalities being on average less than half as populated as the most-regulated municipalities. The most-regulated areas also tend to have a higher population growth rate, are more dense, and also have slightly higher household incomes. Despite having modestly higher incomes, this does not translate to better housing affordability. This is reflected by the house price to income ratio, which is 62% higher in the most-regulated areas relative to the least-regulated areas.

How Do Composite Regulation Scores Impact House Prices and Supply Growth?

As the old adage goes – correlation is not causation. In fact, there are many characteristics that would be important for explaining housing affordability from both the supply and demand side, aside from just the regulation index at a market level. For instance, one would naturally expect that an increasing population or higher income levels would lead to higher house prices (holding fixed other factors).

This leads us into our next objective – to better isolate the effect that a strictness in municipal land use regulation has on house prices, and on the growth of the housing stock. In this analysis, we also control for the level of population, median household income, historical population growth rates, population density, and the employment rate.

This statistical analysis will also seek to mitigate the potential bias in how we estimate this relationship. As is the case with many empirical models, the issue of endogeneity (biased estimates of the relationship between housing and regulation) may arise in the regression if there is the presence of omitted variables, measurement error, or simultaneity. Should regulatory strictness and house prices influence each other simultaneously, or if there are unobserved factors associated with the regulation score not directly observed within the model, it can create challenges in establishing a clear causal relationship.⁹

Addressing potential endogeneity can involve using an instrumental variables (IV) approach, where a valid instrument would be used to isolate the exogenous variation in the Municipal Land Use and Regulation Index and improve the identification of causal effects in the model. In the literature, most models tend to use a standard

⁹ One example on the source of potential bias would be regulatory factors not included in the survey being correlated with the composite measure.

Ordinary Least Squares (OLS) regression that does not account for potential bias in the estimates (Quigley and Rosenthal, 2005; Lin and Wachter, 2019). However, other studies have sought to use some sort of political preference – like historical vote shares for political parties or referendums – as a means to instrument land use regulation (see: Quigley et al., 2008; Lin and Wachter, 2019).¹⁰

Political preference can serve as a valid instrument in the context of housing outcomes, assuming it meets two key criteria needed for an instrumental variable. The decision to consider political preference as an instrument in this case will rest on the assumption that it is both statistically relevant and exogenous. Here, relevance implies that political preference within a municipality is correlated with the endogenous variable - our regulation index - and has explanatory power in the first-stage of the model. Exogeneity requires that political preference is not directly linked to the dependent variables - house prices or the growth in the stock of dwellings - except through its correlation with the Municipal Land Use and Regulation Index.

The rationale for using political preference as an instrument stems from the belief that the political climate of a municipality influences the adoption or modification of land use regulation, subsequently impacting the growth of the housing supply and house prices. For the purpose of our analysis, we tested several historical federal election vote shares and political donation intensity at the municipal level using data from Elections Canada. We found that the 2019 election vote share for a major party was a strong instrumental variable from a statistical perspective, and use this measure in the subsequent analysis.

Table 3: How Land Use Regulation Impacts House Prices

	OLS ln(House Price)	IV ln(House Price)
ln(Municipal Land Use and Regulation Index)	0.435*** (0.078)	1.368*** (0.471)
Controls	Y	Y
R ²	0.660	0.517
N	302	302

Notes: Controls include the log of 2021 population, the population growth rate (%) between 2021 and 2006, the log of 2021 population density, the 2021 employment rate, the log of median household income in 2021, and the percentage change in the total stock of private dwellings between 2021 and 2006. The instrumental variable used in this regression is the vote share for a major Canadian party in the 2019 General Election, linked to the Census Subdivision level. Cragg-Donald F-statistic: 19.455. Robust standard errors are reported in parenthesis. *** denotes statistical significance at the 1% level, ** denotes significance at the 5% level and * at the 10% level.

Table 3 first demonstrates these for the house prices variable, obtained from the 2021 Census at the Census Subdivision level. This model also controls for population levels, population growth rates, population density, the employment rate, median household income (hence many important elements of demand, to isolate the impact

¹⁰ Within a Canadian context, Green et al. (2016) use standard OLS regression analysis.

from regulation), and the historical growth rate in stock of private dwellings. In this case, both house prices and the Municipal Land Use and Regulation Index are expressed in natural logarithms. What does this mean?

- In the OLS model (*before* accounting for bias in the estimate), this indicates that a 10% increase in regulatory strictness is associated with a 4.4% increase in house prices within a municipality. This result is statistically significant at the 1% level.
- In the IV model (*after* accounting for bias in the original estimate), this indicates that a 10% increase in regulatory strictness is associated with a 14% increase in house prices within a municipality. This result is also statistically significant at the 1% level.
- A “10% increase in regulatory strictness” may not have much direct interpretation alone. For context, the Montréal CMA has a score that is 15% less than that of the Toronto CMA.¹¹

Overall, these findings are supported by the literature, which finds that OLS estimates are biased towards zero in the presence of omitted variables, and that increases in regulation are associated with more expensive housing. This finding has several key implications. First of all, it is important to recognize that municipal land use and planning actions can often originate from a well-intentioned desire to ensure orderly development, protection of the environment, and community well-being. Yet, the unintended consequence of stringent regulations is the potential trade-off with housing affordability. When stricter regulations impose restrictions on the development of new housing, they can lead to a reduced supply of housing. As a result, over time the scarcity of housing options at an affordable price can become more pronounced, and particularly so in Canada’s most heated markets.

Table 4: How Land Use Regulation Impacts the Growth of Housing Supply

	OLS	IV
	%Δ Housing Stock	%Δ Housing Stock
ln(Municipal Land Use and Regulation Index)	-0.136	-1.587***
	(0.099)	(0.523)
Controls	Y	Y
R ²	0.912	0.845
N	302	302

Notes: The dependent variable %Δ Housing Stock is the percentage change in the total stock of private dwellings between 2021 and 2006, converted to an annual rate. Controls include the log of 2021 population, the population growth rate (%) between 2021 and 2006, the log of 2021 population density, the 2021 employment rate and the log 2021 house price. The instrumental variable used in this regression is the vote share for a major Canadian party in the 2019 General Election. Cragg-Donald F-statistic: 21.896. Robust standard errors are reported in parenthesis. *** denotes statistical significance at the 1% level, ** denotes significance at the 5% level and * at the 10% level.

Touching on the above point about the possible channel in which this relationship operates, we next direct our attention to the results in Table 4, which explores how the Municipal Land Use and Regulation Index impacts the growth in the total stock of private dwellings. This dependent variable is calculated using data between the 2021

¹¹ Other relative comparisons are shown in Table 1.

and 2006 censuses, and is converted to an annual rate.¹² This model will control for population levels, population growth rates, house prices, population density, the employment rate, and median household income. What did we find?

- In the OLS model (*before* accounting for bias in the estimate), this indicates that a one log point increase in regulatory strictness is associated with a 0.14 percentage point lower growth rate in the housing stock within a municipality. It is not quite statistically significant.
- In the IV model (*after* accounting for bias in the original estimate), this indicates that a one log point increase in regulatory strictness is associated with a 1.6 percentage point lower annual growth rate in the total housing stock.¹³ This result is statistically significant at the 1% level.

Altogether, the findings in Table 4 would support the theorized role that increased regulation can play in the channel to overall affordability through reduced supply.

While the focus for this passage is geared towards affordability and supply, that is not to say that the impact of stricter land use regulation doesn't have broader or more granular implications. In fact, D'Amico et al. (2024) show that stricter regulation in the U.S. has limited the size of construction firms by favouring smaller, less scalable projects. This, in turn, reduces firms' incentives to invest in innovation and technology, leading to lower productivity. D'Amico et al. find that larger firms are significantly more productive, with firms that have over 500 employees producing more than four times as many units per employee compared to the smallest firms. Interestingly, areas with stricter land use regulation tend to have smaller, less productive firms and lower levels of construction activity overall. Thus, an important takeaway from the paper is that land use regulation not only affects housing affordability through supply constraints but can also impede efficiency in the construction sector. It shows another pathway that can help explain broader housing market challenges through land use regulation and remains an important lead for future work in Canada as well.

Approval Times: The Silent Cost of New Housing

The initial analysis surrounding the composite Municipal Land Use and Regulation Index provides important insights for the stringency of the overall portfolio within a municipality, and how it impacts affordability and supply. Among the sub-indices of the composite measure, a correlational analysis demonstrates that the Approval Delay Index stands out with the highest statistical correlation with a house price to income ratio at 0.49.¹⁴ This indicates a fairly strong association between longer approval delays and increased housing unaffordability.¹⁵ The Approval Delay Index contains information on the duration it takes for a proposed development, building permit, or development project to go through the planning and approval process administered by the municipal government. This process can involve reviewing the project's compliance with zoning regulations, environmental considerations, community input, and other relevant factors before granting official approval for the proposed development. At the lowest end of correlations with unaffordability was the Municipal Assembly Index (0.03), which measures how/if consultation or approval is required at public hearings to approve residential land use changes.

¹² This dependent variable is similar to the approach taken by Green et al. (2016).

¹³ It is key to distinguish this is the growth rate of the *housing stock*, not new starts.

¹⁴ This association was also profiled at a higher-level in CMHC (2023).

¹⁵ Comparatively, the composite Municipal Land Use and Regulation Index exhibits a correlation of 0.43, further highlighting the association shared between more stringent municipal land use policies and regulations and housing unaffordability.

Approval times can have significant implications for overall affordability and the supply of new housing. Lengthy approval processes can impede the timely development of new housing projects, or discourage developers from building in the first place, thus contributing to housing shortages and driving up prices over longer periods of time. Streamlining approval times is essential to facilitate the construction of new housing units, promoting increased supply and potentially mitigating affordability issues by meeting the growing demand for homes.

So What are Approval Times Like in Canada?

We next profile how approval times vary among building types, regions, and approval types. This analysis begins with Table 5 which describes average times required to complete the review of a development project that *does not* require rezoning among a set of key regions in Canada.

Table 5: What is the typical length of time required to complete the review of a development project which *does not* require a change in zoning for this jurisdiction? (Average Weeks)

Type	Atlantic	British Columbia	Ontario	Prairies	Québec	Territories	Canada
Single and Semi-Detached homes	5	12	12	2	10	5	9
Apartments or Mixed-Use Residential	6	18	15	4	11	10	12

Notes: According to calculations by the authors using data from the Municipal Land Use and Regulation Survey. Numbers are rounded to the nearest integer of weeks.

- For typical length of time required to complete the review of a development project that *does not* require a change in zoning, these average out at between 9-12 weeks at the national level (depending on the building type).
- There are significant differences across the country.
 - Approval times for development projects *without* a need for rezoning are the highest in Ontario and British Columbia. These two regions tend to have the most unaffordable housing in the country.
 - To the contrary, this data reveals that these approval times are the lowest in the Atlantic and Prairies provinces, which are only a fraction of what they are in Ontario and British Columbia.
- These approval times tend to increase modestly from less dense housing into higher density and non-residential building types.

Interpreting approval timelines requires caution, as delays may not solely reflect municipal inefficiencies—developers themselves can contribute to longer timelines through incomplete submissions. Although to the contrary, these numbers are reported by municipalities themselves in the survey, which may introduce bias if processes are portrayed as more efficient than they would be if reported by developers.

Discussions have also ensued about the need for inclusive rezoning to allow for more dense housing, and how this can be costly from a time perspective. The need for rezoning in a development project can significantly prolong the approval process due to a number of factors. For instance, the rezoning process can be disproportionately prone to community opposition and additional approval requirements from local government bodies, all of which can

contribute to a substantial amount of time. Moreover, rezoning can often require additional assessments and studies to evaluate potential impacts on the environment, infrastructure, and community. These assessments, such as environmental impact studies or traffic assessments, add complexity, costs, and time to the approval process. Increased approval times in the presence of rezoning are shown in Table 6, which capture the average time required to complete the review of a development project *which does require* a change in zoning for municipalities in the same set of key regions.

Table 6: What is the typical time required to complete the review of a development project *which requires* a change in zoning for this jurisdiction? (Average Weeks)

Type	Atlantic	British Columbia	Ontario	Prairies	Québec	Territories	Canada
Single and Semi-Detached homes	18	29	24	10	22	12	22
Apartments or Mixed-Use Residential	19	35	26	11	24	16	24

Notes: According to calculations by the authors using data from the Municipal Land Use and Regulation Survey. Numbers are rounded to the nearest integer of weeks.

- On average, the addition for rezoning tends to double approval times nationwide.
- For higher density developments like apartments and mixed-use residential, these approval times are estimated to take as long as 35 weeks on average in British Columbia.
- Regional patterns remain the same, where the Prairies tend to have the shortest approval times in the country.
- Recent legislative changes at the provincial level in British Columbia and Ontario, as well as municipal level changes through the Housing Accelerator Fund may generate increased efficiencies for certain dwelling types that previously would have required a change in zoning.

It is worth emphasizing that these are averages and could be masking broader differences within regional areas. That is to say most municipalities complete their review of a development project with rezoning within six months (roughly two thirds). Outside of these, approval times can grow considerably, even beyond two years. Municipalities that have the most lengthy approval times tend to have relatively unaffordable housing.

Although much of the survey contains contemporaneous information about a municipality's practices, some questions ask about evolutions over time. With a baseline of 2017, we asked municipalities if their approval times increased, decreased or stayed the same for multiple building types. These are profiled in Table 7.

Table 7: Since the beginning of 2017, how did the length of time required to complete the review and approval of the residential projects in this jurisdiction change? (Number of Municipalities)

Building Types	Less Time	About the Same	More Time
Single or Semi-Detached homes	34	222	63
Apartments or Mixed-Use Residential	32	207	79

Notes: According to calculations by the authors using data from the 2022 Municipal Land Use and Regulation Survey. Numbers represent counts of municipalities that respond to each category.

- Most cities in Canada said they had about the same time required to complete the review and approval of residential projects since 2017.
- However, more cities have cited increases in approval times relative to those requiring less time. This pattern is seen as being stronger for apartments and mixed-use residential building types, even as the need for higher density housing becomes ever more prominent in the national conversation on housing solutions.
- Cities with “More Time” required to complete the review and approval of the residential projects since 2017 were more likely to come from British Columbia and Quebec, and especially so in the Montreal CMA.¹⁶ Moderate gains in efficiency have been seen in the Prairies, although this is less conclusive.
- Part of the [Housing Accelerator Fund’s 10 best practices](#) stress the urgency of increasing efficiency in these processes with new technology (such as e-permitting), and also prioritizing rental and affordable housing in the development approval process.

The Municipal Land Use and Regulation Survey also asks what “the typical amount of time between the initial application for a building permit and the issuance of the permit” is, but they tend to be modest with much less variation across the country. Instead, this analysis reveals that development projects with rezoning produce the lengthiest approval times in Canada by a considerable margin.

What Factors are Associated with Longer Approval Times?

Lengthy approval times for new housing developments can be attributed to a combination of factors within the regulatory landscape. Some possible hypotheses as to why certain cities have longer approval times and others do not include:

- More stringent land use regulations altogether, especially those involving the rezoning process, could lead to extended timelines.
- Differences in population, growth and density also make development processes more complicated, and can add to approval times.
- Community engagement and potential opposition can result in more staggered reviews and modifications to address concerns from local residents.
- Ensuring that there is adequate planning for infrastructure and services, such as water, sewage, and utilities is crucial, and delays in coordination these can further extend approval times.
- Adequate staffing and related municipal resources.
- Other interactions such as the degree of involvement from provincial or territorial courts or tribunals can add to approval times.

Fortunately, the Municipal Land Use and Regulations survey contains many of these features (or proxies thereof), which can be considered together in a statistical analysis. In an instrumental variable model,¹⁷ we test how regulation levels, provincial courts and tribunals, community opposition, infrastructure concerns, municipal budget

¹⁶ This conclusion was derived from a linear probability model of having more time required to complete the review and approval of the residential projects (set to one and zero otherwise) on a set of key regional indicator variables.

¹⁷ The regulation measure (less the approval times component) is again instrumented using data from a Canadian election.

concerns, population growth, population levels, density, employment rates and income are associated with the Approval Delay Index.¹⁸

Table 8: What Factors Are Associated with Longer Approval Times?

	ln(Approval Delay Index)
ln(Municipal Land Use and Regulation Index ¹⁹)	1.145** (0.523)
Provincial Courts and Tribunal Involvement	-0.223 (0.147)
Community Opposition to Multi-Unit Housing	0.223* (0.117)
Inadequate Infrastructure Concerns	-0.199 (0.200)
Municipal Budget Concerns	-0.206* (0.114)
Population Growth (%; 2006-2021)	0.072 (0.052)
ln(Population, 2021)	0.153*** (0.056)
ln(Density; 2021)	0.009 (0.029)
Employment Rate (%; 2021)	-0.019*** (0.009)
ln(Household Income)	0.462*

¹⁸ It is noted that community opposition, inadequate infrastructure and municipal budget concerns are derived from a question on “Please indicate the impact the following factors have in acting as a constraint to residential development in this jurisdiction for multi-unit buildings.” This variable is binary, wherever a municipality cites there as being at least some concern to one of those elements. Involvement from provincial courts and tribunals is similarly structured.

¹⁹ Excluding the information from the Approval Delay Index.

	(0.280)
R ²	0.214
N	297

Notes: The instrumental variable used in this regression is the vote share for a major Canadian party in the 2021 General Election. Cragg-Donald F-statistic: 14.018. Robust standard errors are reported in parenthesis. *** denotes statistical significance at the 1% level, ** denotes significance at the 5% level and * at the 10% level.

Altogether, this analysis shows that only a smaller proportion of the total variance in approval times can be explained by these factors.²⁰ Within *at least* a 95% statistical confidence interval, the factors that stood out from this analysis include: regulation, employment rates, and population levels. They can be interpreted as follows:

- A 1% increase in the regulatory strictness measure – the remainder of the Municipal Land Use and Regulation Index - is associated with 1.1% increase in the Approval Delay Index (holding fixed the other variables).
- A 1 percentage point increase in the employment rate is associated with a 1.9% decrease in the Approval Delay Index (holding fixed the other variables).
- A 1% increase in population is associated with 0.15% increase in the Approval Delay Index (holding fixed the other variables).

Some of the other elements, like infrastructure concerns and community opposition may still theoretically be influencing approval times in an adverse way. We find that the vast majority of municipalities cite some sort of community opposition or inadequate infrastructure as being present. Since there is very little variation in this data, it may show up as being non-significant in this regression analysis, even though in reality there is likely much more differences on these topics between Canadian municipalities. Moreover, there may be other factors associated with approval times where data is more scarce or unobservable.

A further question on the subject of approval times is how lengthier approval times might translate to reductions in new supply and possibly also less affordable housing. We can think of lengthier approval times for housing projects as having several possible impacts on supply and affordability. For one, delays in approvals can slow down the pace at which new housing units enter the market, leading to a constrained supply. Over time, a more limited supply can then push up house prices, making homes less affordable for buyers, holding fixed for income.²¹ In another channel, developers may pass on the increased costs incurred due to longer approval processes to consumers, further worsening affordability challenges. We profile in Table 9 how approval times impact supply and prices with an instrumental variable regression. Instead of using the Approval Delay Index, we here use the typical time required to complete the review of a development project which requires a change in zoning.²²

Table 9: Approval Times Increase Prices and Reduce Supply

	IV	IV
	ln(House Price)	%Δ Housing Stock

²⁰ The R² value from an OLS regression was 0.21.

²¹ While this study has primarily focused on house prices, it's worth mentioning that rent and house prices are strongly correlated (0.82) among the municipalities we have in our sample.

²² For ease of interpretation. Variable is averaged across all dwelling types.

Approval Time in Months	0.047*** (0.016)	-0.051** (0.024)
Controls	Y	Y
R ²	0.662	0.845
N	297	297

Notes: The dependent variable %Δ Housing Stock is the percentage change in the stock of private dwellings between 2006 and 2021, converted to an annual rate, and the ln(House Price) variable is the average value of a dwelling from the 2021 census. Controls include the Municipal Land Use and Regulation Index (excluding approval times), the log of 2021 population, the population growth rate (%) between 2006 and 2021, the log of 2021 population density, the 2021 employment rate and the log 2021 house price (for the supply equation, and supply is included for the price equation). The instrumental variable used in this regression is the vote share for two major Canadian parties in the 2019 General Election. Cragg-Donald F-statistics: 17.484 and 13.458.²³ Robust standard errors are reported in parenthesis. *** denotes statistical significance at the 1% level, ** denotes significance at the 5% level and * at the 10% level.

This analysis shows that approval times are significant influencers of both house prices and the growth of the housing supply. Specifically, they can be interpreted as follows:

- A 6 month increase in approval times is associated with house prices that are 28% higher (holding fixed the other variables).
- A 6 month increase in approval times is associated with an annual housing stock growth rate that is 0.31 percentage points lower (holding fixed the other variables).
- Both findings are statistically significant within a 95% confidence interval.

Importantly, these regressions control for a number of factors, including other forms of regulation included in the Municipal Land Use and Regulation Index. While the magnitude of these estimates are different, they could reflect an intuitive explanation. When the annual growth rate of the housing stock is more suppressed over time, the effects can compound to more significantly impact house prices in the long run. Holding fixed for the other elements of demand over time, a gap in supply driven by more extensive approval times can have important implications for affordability.

Overall, this passage provides several important insights on approval times in Canada. As the data demonstrates, a significant proportion of the typical time required to complete the review of a development project comes from the need to rezone. As-of-right zoning can mitigate some of these concerns for higher density housing, and the adoption of new technology can further help improve the efficiency of the permitting process. Additionally, a new federal initiative of a [catalogue](#) for pre-approved housing designs may offer increased efficiencies in the permitting process for a diverse and targeted set of building plans. Ultimately, recognizing the value of time to approve new housing is essential for improving housing affordability, as delays can exacerbate the housing supply gap and contribute to our profound housing market challenges, making efficient approval processes a cornerstone for a more inclusive housing landscape in Canada.

²³ These change because the independent and dependent variables switch between the two analyses.

Rezoning Approval Rates: A Key Predictor for Housing Affordability Among Canadian Municipalities

Rezoning approval rates have the ability to influence housing affordability, as this process can allow for more housing to be built with less land resources. This possible benefits to supply - if properly aligned with demand - have the potential to alleviate housing supply gaps and contribute to greater affordability. Rezoning can allow for the new construction of more diverse housing types, from mixed-use developments to higher density multi-unit housing and the so-called “missing middle”. Additionally, rezoning decisions can impact the location and accessibility of new developments to transportation and other amenities.

Insights from the Municipal Land Use and Regulation reveal how cities engage in rezoning, and the rate at which they approve of new changes. Specifically, the survey asks: “In 2022, what was the total number of applications for the following types of zoning changes?”, then provides options for residential and non-residential zoning changes. In Table 10 we document the total number of applications for rezoning of all types, and the total number approved among a set of key regions in Canada.

Table 10: Applications and Approvals for Rezoning by Region

Region	Approved Applications	Total Applications	Rate (%)
Atlantic	256	289	89
British Columbia	1594	2364	67
Ontario	1107	1636	68
Prairies	394	461	85
Québec	677	944	72
Territories	60	66	91
Canada	4088	5760	71

Notes: According to calculations by the authors using data from the Municipal Land Use and Regulation Survey.

There are several important noteworthy observations:

- Among the responding municipalities, we document over 5700 applications for rezoning in 2022, with an aggregate approval rate of 71%.
- On a per capita basis, this data reveals there to be a strong appetite for rezoning in British Columbia, which had over 700 more applications than respondents from Ontario (despite having roughly 1/3 of the population).
- Approval rates for rezoning were also the lowest in British Columbia at 67%, with Ontario at a close 68%.

Next, Table 11 takes a more granular look at this theme, which explores the total number of applications approved and received among a sample of CMAs.

Table 11: Applications and Approvals for Rezoning by CMA

CMA	Approved Applications	Total Applications	Rate (%)
Moncton	23	24	96
Fredericton	36	38	95
Québec City	68	72	94
Saint John	41	44	93
Ottawa - Gatineau	58	63	92
London	46	55	84
Edmonton	77	94	82
Victoria	71	88	81
Kitchener-Cambridge-Waterloo	65	82	79
St. Catharines-Niagara	73	99	74
Montréal	207	334	62
Vancouver	267	566	47
Toronto	209	449	47

Notes: According to calculations by the authors using data from the 2022 Municipal Land Use and Regulation Survey.

- It is shown that smaller to mid-sized CMAs – ranging from Moncton (pop. 157,717) to St. Catharines-Niagara (pop. 433,604)– had higher rezoning approval rates, with many CMAs being north of 80 percent.²⁴
- Canada’s three largest CMAs meanwhile have much lower approval rates for rezoning, with Toronto and Vancouver approving less than 50 percent of total applications.

Altogether, this analysis provides for an important profiling of rezoning approval rates across Canada. Higher rezoning approval rates can play a pivotal role in shaping the housing landscape by enabling the development of more dense housing options. The data however reveals that the lowest rezoning approval rates tend to be in regions experiencing the most pronounced housing affordability challenges.

While these aggregate rezoning approval rates offer useful and novel insights, it's important to acknowledge a key limitation: the data do not account for project-specific characteristics that can significantly influence approval outcomes. Factors such as project size, location, intended use, and alignment with local planning priorities can all affect how quickly and smoothly a rezoning application proceeds. Moreover, approval practices vary widely across municipalities, as some have streamlined, standardized processes, while others rely more heavily on discretionary decisions. Therefore, micro-analyses of upzoning decisions and processes will remain an important avenue for future research in Canada.

²⁴ Populations as of the 2021 Census.

What other survey themes stand out?

The analysis thus far has tended to focus on the overall portfolio of regulatory strictness, approval times, and rezoning approval rates. The Municipal Land Use and Regulation fortunately contains many interesting questions and insights, many of which cannot be explored in every detail within this study. However, the following analysis will profile some of the other key themes within the survey, and how they vary among a long list of regions within Canada. Similar to earlier analyses, all sub-indices are normalized as being relative to the Toronto CMA (= 100). This is done to increase the interpretability of the raw data.

Table 12: Other Key Sub-Indexes by Region

	Municipal Developers Regulation Index	Affordable Housing Index	Density Restriction Index	Municipal Zoning Approval Index	Municipal Project Approval Index	Municipal Involvement Index
	All Indices are Normalized (Toronto CMA = 100)					
Canada	77	81	105	86	95	78
Prince Edward Island	76	100	131	136	144	74
Nova Scotia	58	58	106	80	72	73
New Brunswick	60	66	134	90	100	59
<i>Moncton</i>	81	58	109	96	96	78
<i>Saint John</i>	66	77	145	87	102	61
<i>Fredericton</i>	52	65	144	83	102	40
Québec	81	81	97	90	96	75
<i>Montréal</i>	84	94	91	95	100	76
<i>Québec</i>	67	79	98	59	76	76
Ontario	83	90	98	86	91	84
<i>Kitchener - Cambridge - Waterloo</i>	86	75	108	83	83	97
<i>London</i>	88	77	126	71	48	64
<i>St. Catharines - Niagara</i>	89	91	94	110	108	112

<i>Toronto</i>	100	100	100	100	100	100
<i>Windsor</i>	98	123	98	81	100	74
<i>Ottawa - Gatineau</i>	91	159	78	67	84	55
Manitoba	65	58	98	83	114	76
Saskatchewan	66	72	86	79	90	82
Alberta	75	64	104	75	85	72
<i>Edmonton</i>	94	74	103	79	64	79
British Columbia	80	93	116	78	102	84
<i>Kelowna</i>	89	58	133	68	132	85
<i>Nanaimo</i>	121	102	107	74	128	46
<i>Vancouver</i>	103	123	110	95	107	97
<i>Victoria</i>	105	114	138	91	118	93
Territories	62	58	37	95	99	85

Notes: According to calculations by the authors using data from the Municipal Land Use and Regulation Survey.

Municipal Developers Restriction Index

The Municipal Developers Restriction Index captures developers' requirements (either in cases or compulsory) to: include affordable housing, provide parkland (or a fee in lieu of), pay development charges, provide accessibility provisions, conduct environmental impact assessments, implement environmental buildings standards, and "other". Other may capture a number of other requirements, including studies on heritage, transportation, wind, noise, and shadows, among others. Development charges may also vary significantly between municipalities, and the indicator here is simply binary which cannot account for these specific variations.

This index bears a strong association with housing affordability. Only the Nanaimo, Victoria and Vancouver CMAs have a score from this index as being greater than the Toronto CMA, all of which have relatively high house price to income ratios. In regions with relatively more affordable housing, we find much lower scores of Municipal Developers Restriction Index. For instance, Nova Scotia, Saskatchewan, New Brunswick, the Territories and Québec City all have *at least* a third lower scoring of this index relative to the Toronto CMA.

Increased restrictions on developers, such as those that are included in the Municipal Developers Restriction Index, could raise construction costs and delay projects. Concerningly, these added expenses and time delays can often be passed on to buyers through higher housing prices and rents. However, it is not to say that measures like being required to implement environmental building standards could have other positive externalities. Like any policy, there can often be pros and cons from implementation. While this study is focused on housing, other studies will be

better equipped to look at potential benefits from engaging in certain forms of regulation. Yet, it is important to consider that they may come at the expense of developing more cost-effective and efficient housing.

Affordable Housing Index

Next, the Affordable Housing Index – which includes data on affordable housing targets (where necessary) and affordable housing regulations. More specifically, this survey index is structured to capture how municipalities operationalize affordable housing within their planning and development frameworks. It includes questions on whether jurisdictions have formal mandates or targets for affordable housing, and how they prefer to report those targets. It also distinguishes between different types of affordable housing, such as subsidized or non-market units, and market housing that meets affordability thresholds, typically defined as costing less than 30% of the local median income. Additionally, the index includes whether municipalities require or encourage developers to include affordable housing in their projects. Together, these questions provide a multi-dimensional view of how municipalities conceptualize, measure, and promote affordable housing, offering valuable insights into both policy intent and practical application. This index exhibits a wider variation, with the Ottawa-Gatineau CMA standing out with the highest score at 159. While correlated with housing affordability, it cannot be easily interpreted. This is because it is not clear if increases in affordable housing provisions are a cause of, or consequence of, more unaffordable housing.

Density and Supply Restriction Indices

Both the Density Restrictions Index and Supply Restrictions Index (not included in this table) fail to exhibit any strong statistical patterns with respect to housing affordability. These respectively account for minimum lot size restrictions and explicit limits on developing new types of housing. Both of which are motivated by U.S. studies, which find these to be important characteristics for explaining differences in housing outcomes (see Nelson et al., 2002; Glaeser et al., 2006; Gyourko et al., 2008). In Canada, however, we find a null association of housing affordability with the Density Restrictions Index, and explicit controls on building new housing within a municipality are virtually non-existent.

Municipal Zoning and Project Approval Indices

Two similarly structured indices measuring the number of bodies needed to approve new developments with or without rezoning – the Municipal Zoning Approval Index and the Municipal Project Approval Index – are profiled next. Patterns here are also less conclusive, as areas with relatively more affordable housing (such as Prince Edward Island, Manitoba and the CMAs in New Brunswick) and relatively less affordable housing (such as the CMAs listed from British Columbia) have higher scores. Meanwhile, some larger CMAs with more favourable recent supply growth stand out as having much lower scores, like the London (71 and 48), Edmonton (79 and 64) and Ottawa-Gatineau (67 and 84) CMAs.

Municipal Involvement Index

Finally, we profile the Municipal Involvement Index. This index measures the degree to which various actors – like city councils, municipal directors, regional governments, community organizations and other groups - are involved in influencing residential building activities within a municipality. Again, the Toronto CMA and the major CMAs in British Columbia (excluding Nanaimo), stand out as having among the highest values of this score.

Limitations

The Municipal Land Use and Regulation survey provides valuable and novel insights into local planning practices and regulatory environments across Canadian municipalities, but does come with some caveats:

- **Aggregated Analysis and not Project-Level:** The survey does not capture characteristics of individual development projects, such as size, complexity, or location, which can significantly influence approval timelines and outcomes. By not capturing these nuances, the survey may obscure important variation in how regulations are applied in practice, limiting the ability to draw precise conclusions about the relationship between land-use regulation and housing outcomes. Instead, the data offer insights at a higher market-level.
- **Self-Reported Data:** Another possible limitation of the survey is its reliance on self-reported data from municipal officials and planners, which can introduce bias and inconsistency. Respondents may interpret questions differently based on their local context, policy environment, or personal experience, leading to variability in how responses reflect actual practices. For example, what one municipality considers a "typical approval timeline" may differ significantly from another's, even if the underlying processes are similar. Additionally, responses may be influenced by institutional priorities or political considerations, potentially skewing the data toward more favorable portrayals of local regulation. This subjectivity can affect the reliability of the survey results, especially when used to benchmark municipalities against one another.
- **Static Snapshot:** Another limitation of this analysis is that it reflects a single point in time (surveyed in 2023 with a 2022 base year), which may not capture the dynamic nature of land-use regulation. Since the survey was conducted, many municipalities have undertaken significant reforms in response to the housing affordability crisis, including those spurred by the Housing Accelerator Fund. Such developments include streamlining approval processes, updating zoning bylaws, or introducing new ambitious housing targets. These changes may not be reflected in the survey data, potentially leading to incomplete representations of current regulatory environments. As a result, while the survey provides a valuable baseline, it may not fully account for the evolving policy landscape that continues to shape housing development across Canada.
- **Coverage:** While broad and intending to be representative, the survey may not include all municipalities, which can limit its representativeness. The survey response rate was relatively high (aside from Newfoundland and Labrador), though important stakeholders may have been missed or not responded to this edition of the survey.
- **Interpretation Challenges:** Metrics like approval timelines can be influenced by both municipal processes and developer behavior, complicating efforts to isolate the regulatory impact. Further, as the data mainly aggregates qualitative information into quantitative indices, the interpretation of the data may not always be straight-forward.

Implications

Land use regulations play a critical role in shaping how land is developed and utilized within communities. While these regulations are intended to promote various housing, social, environmental, and economic objectives, they come with both advantages and disadvantages, and the extent of regulation has the potential to adversely impact housing affordability and new supply.

On the one hand, land use regulations can be instrumental in promoting sustainable development practices and provide other related benefits within their communities. They can help protect natural habitats, preserve environmentally sensitive areas, produce more walkable neighbourhoods, reduce transportation emissions,

enhance community aesthetics, ensure that developments align with existing architectural styles, maintain historical character, and contribute to cohesive urban design.

However, land use regulation can also have drawbacks that can impact new supply and housing affordability. Requirements such as needing approvals from multiple bodies for development, land dedications, development charges, environmental impact assessments, and strict zoning practices increase costs for new development. These costs may be passed on to homebuyers and renters through higher prices for new units, thereby reducing affordability directly. Increased costs can alternatively lead to many developments not beginning in the first place, which result in suboptimal supply outcomes relative to demand. Land use regulations can also lead to delays and uncertainties in the development process. Lengthy approval timelines can hinder upon the timely delivery of new housing units. These delays contribute to higher direct costs for developers, and can also discourage the development of new housing altogether.

The evidence in this paper pinpoints – and quantifies – the impacts that overall regulatory strictness and approval delays have on housing affordability and supply growth in Canada. Collectively, they show that more strict regulation and lengthier approval times lead to more unaffordable housing and a reduced growth of the housing stock.

Finding the right balance between regulatory objectives and the need to develop new supply is crucial as Canada grapples with its affordability crisis. Municipalities should carefully consider both existing and future regulations, as well as approval processes, to ensure that the perceived benefits of each action is necessary in light of the potential costs to housing. Reevaluating existing and future regulatory changes should also be conducted without fear from homeowners' opposition and so-called NIMBYism. Doing so is a fairer community result for those who are struggling with housing affordability, who tend to have a less strong voice in the development process relative to those who have. Addressing Canada's supply gap requires urgent action from a wide variety of actors, and municipalities play a key role in greenlighting the development of new housing. Having the right mechanisms in place to promote new housing will create more inclusive communities, and put Canada on a stronger path towards short and long-term improvement in access to housing that is affordable.

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Appendices

APPENDIX A – Profiling Non-Respondents

The below table contrasts the average observable characteristics of municipalities who did, and did not fill out the survey. Non-responders are growing at a faster rate and are slightly more dense, though the rest of the statistical difference tend to be small in magnitude.

Table A.1.: Comparing Surveyed Municipalities Who Did or Did Not Fill Out the Survey

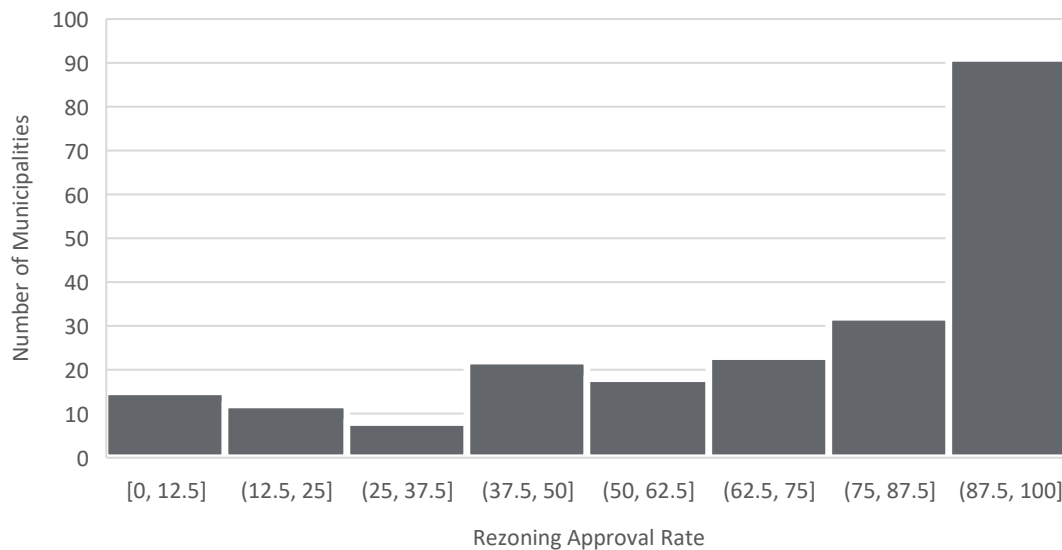
	Completed Survey	Did Not Complete Survey
Average House Price (2021)	\$533,100	\$586,900
Average Rent (2021)	\$1,130	\$1,220
Population (2021)	75,400	77,700
Population Growth (%; 2006-2021)	14.4	21.4
ln(Population Density; 2021)	4.88	5.25
Median Household Income	\$85,000	\$90,600
Employment Rate (%; 2021)	57	57
House Price / Household Income	6.28	6.48

Notes: According to calculations by the authors using data from the Municipal Land Use and Regulation Survey and the 2006 and 2021 Canadian censuses.

APPENDIX B – Distributions of Rezoning Approval Rates at the Municipal Level

At the municipal level, we can also take a deeper dive into how these rezoning approval rates are distributed at the lowest level of geography, which is shown in Figure 2.

Figure 2: Distribution of Rezoning Approval Rates



Notes: According to calculations by the authors using data from the 2022 Municipal Land Use and Regulation Survey. Municipalities included in this figure must have at least four applications for rezoning.

- Many cities have rezoning approval rates above 87.5%.
- Elsewhere, approval rates can vary greatly, with a number of municipalities being at or below the 50% approval threshold.
- This variable is also correlated with housing affordability – cities with higher rezoning approval rates also tend to have more affordable housing.