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HOW IMPORTANT IS A SCHOOL? EXAMINING THE IMPACT OF REMOTENESS FROM A SCHOOL ON CANADIAN COMMUNITIES' ATTRACTION AND RETENTION OF SCHOOL-AGE CHILDREN

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Article abstract

Many Canadian communities, especially rural communities, are concerned about youth outmigration as a cause of population decline, which is associated with fewer services and amenities. Proponents of keeping underattended schools open argue that removing a school from the community means that fewer families will want to live there, and that more families will consider leaving. Others view school closures as a rational response to population decline. Still other perspectives complicate the correlation between schools and population, noting phenomena such as children "learning to leave" and "place attachment" that modulate the temptation to move away. This paper offers an empirical test of discursive connections between school closures and mobilities by studying the population change of school-age children in Canadian census subdivisions indexed by distance to the nearest school. Based on this method, we conclude that there is a positive correlation between the school-age population in a community and proximity to a school in that community. Although our data do not answer the question of whether school closures cause population decline, or such a decline causes school closures, or both, we provide a quantitative foundation on which to ask it.

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Abstract: Many Canadian communities, especially rural communities, are concerned about youth outmigration as a cause of population decline, which is associated with fewer services and amenities. Proponents of keeping underattended schools open argue that removing a school from the community means that fewer families will want to live there, and that more families will consider leaving. Others view school closures as a rational response to population decline. Still other perspectives complicate the correlation between schools and population, noting phenomena such as children "learning to leave" and "place attachment" that modulate the temptation to move away. This paper offers an empirical test of discursive connections between school closures and mobilities by studying the population change of school-age children in Canadian census subdivisions indexed by distance to the nearest school. Based on this method, we conclude that there is a positive correlation between the school-age population in a community and proximity to a school in that community. Although our data do not answer the question of whether school closures cause population decline, or such a decline causes school closures, or both, we provide a quantitative foundation on which to ask it.

Keywords: schools; education; Canada; rural; mobilities

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Wherever populations are shrinking, aging, or stagnating, youth outmigration is a problem that policymakers try to solve. The presence of young people in communities is important for a variety of reasons. Some of these are symbolic — a youthful population is seen as having a future. Others are pragmatic — young people grow into adults who keep the community running by holding down jobs, doing volunteer work, and pumping money into local businesses and tax bases. There is thus significant interest in understanding how areas with shrinking and aging communities can create employment opportunities, amenities, and infrastructure in order to retain and attract young people, whether as children in young families or as young adults starting independent lives. One point of interest is to understand why young people raised in such communities have tended to leave them.

Scholarship from around the world has been fairly consistent in categorizing the causes and consequences of youth outmigration. It has tended to focus on rural communities, which are more likely to be shrinking and aging compared to larger towns and cities. While "poorer quality of life is not an inevitable outcome of rural depopulation" (Peters, 2019, p. 637), a high rate of rural outmigration, especially of young people, has been found to have deleterious economic, social, political, and cultural effects on the communities left behind. When agglomeration, decline, or restructuring impact local industry and commerce (Alasia, 2010), communities face a loss of amenities like churches, banks, and health centres; a "growing dependency by residents on neighbouring market towns and cities" (Stockdale, 2004, p. 187); and a host of social impacts, including business succession planning challenges, school closures, and the burden of volunteering falling on older residents (Harling-Stalker & Phyne, 2014).

In Canada, concerns about youth outmigration have at times crystallized around school closures and consolidation (Corbett, 2014; Geraghty, 2017; Oncescu, 2014; Schollie et al, 2017). Thousands of schools have been permanently closed in Canadian communities since the 1990s, often despite considerable outcry from the people affected (Seasons et al., 2017). In almost every case of a rural school closure, the community's population had been declining for decades until, finally, the number of students diminished to the point where authorities felt closure was necessary. At the centre of the community response to school closures in Canada is the belief that schools are more than just sites for education. They are at the "heart" of communities, contributing to identity, belonging, volunteerism, and sociality (Gollam, 2017). But they are also generally believed to play a critical role in youth attraction, retention, and outmigration: the closure of a school may easily be interpreted as a sign that the community itself is dying (Šūpule & Søholt, 2019).

It is logical that young families would take the presence or absence of a school into consideration when deciding where to live, and that a lack of schools in a community might lead a family with children to move away. This logic is partially backed up by empirical research on youth mobilities, in Canada and elsewhere, most of it qualitative. Such research, which is discussed later in this article, shows that the presence or absence of a school affects how young people and

their families regard their communities, and whether they are able to envisage a future in them. But significantly less research has been done worldwide, and none in Canada, to quantify the impact a school has on youth mobility. In this article, we seek to begin this work in Canada by linking a Statistics Canada index of remoteness to schools by census subdivision (CSD) to census data on CSD-level population changes. We ask whether there has been any correlation between a community's access to an elementary or secondary school and its loss or gain of young people between the 2011 and 2016 censuses.

We begin by reviewing research on the role of schools in youth retention, attraction, and outmigration. We next introduce our methodology, explaining the calculation and rationale behind the school accessibility indices, then present the findings from our analysis. We conclude by connecting the findings to our initial question: is there a correlation between access to public schools and the size of the change in the school-age children population at the community level?

Mobility and Residential Choice

Over the last fifty years, many rural Canadian communities have suffered a gradual loss of jobs, which has in turn driven population decline. The rural problematic (Hallstrom, 2018), at least in Canada, stems in part from the relative increase in the value of human time relative to the price of capital (i.e., machines), which means that enterprises have an incentive to substitute machines for labour. Rural communities are able to sell more and more of their products (especially agricultural) and services with less and less labour. Thus, in order to grow, or even maintain, their workforces, these communities must find something new to produce. But not all communities are able to add to their existing products and services. In time, the decline in employment drives a decline in population (Foster, 2018).

Accordingly, when young adults from rural communities in Canada and elsewhere make choices about where to live, they have been found to move away in search of rewarding, stable, well-paid employment (Cairns, 2014; Power, 2017; Sherman, 2014) including specific jobs, such as those in the so-called "creative class", that are perceived to be more plentiful in cities (Florida, 2003). At the same time, scholars have increasingly emphasized that employment is not necessarily the most important factor (Artz & Yu, 2011; Cairns, 2017; Halfacree, 2004; Ní Laoire, 2000; Rérat, 2014) in young people's mobility decisions, which intersect with considerations and events that are best understood as biographical (Cairns, 2017). Numerous studies have revealed the powerful influence of "place attachment" on whether young people stay, go, or come back (Artz & Yu, 2011; Cassidy & McGrath, 2015; Janning & Volk, 2017; Leyshon, 2008; McMillan Lequieu, 2017; Morse & Mudgett, 2017; Pedersen, 2018; Simões et al., 2019; Wiborg, 2004). Young families, whose mobilities are mostly determined by parents, have been found to move in search of good jobs, but also to prioritize safe, quiet places to raise children, and to move or return to places to which they feel some attachment or have family and friendship ties (Cook & Cuervo, 2020; Eacott & Sonn, 2006). If there is one sentiment that characterizes contemporary scholarship on youth outmigration, it is a resistance to focusing solely on the economic factors of migration over the

many noneconomic factors that shape young peoples' mobilities (Halfacree, 2004; Malatest & Associates, 2002).

The outmigration of older youth is also only one piece of the complex mobility equation. Economics professor Charles Tiebout proposed a model of local expenditures in 1956, arguing that people reveal their preferences for local public services — including schools — by choosing to live in places with the services they want (Tiebout, 1956). The notion that residents "vote with their feet", choosing a community for its level of public services, is still persuasive. Tiebout's model was tested empirically by Gramlich and Rubinfeld (1982) in Michigan, where they found that this mechanism impacted urban more than rural areas. Tiebout's theory is undergirded by the assumption that there is no cost of moving for households; however, one possible reason for the urban–rural difference is that the actual cost of moving from district to district in rural areas is likely higher, meaning that families are less likely to move for a change in services. Banzhaf and Walsh (2008) tested whether Tiebout's theory applied in the case of one specific public good, namely air quality. They found that changes in air quality in communities are correlated with migration to or from these communities. These, along with other empirical tests of Tiebout's theory (Epple & Sieg, 1999; Hoyt & Rosenthal, 1997), confirm the real estate industry cliché that when it comes to choosing a place to live, there's nothing more important than location, location, location. However, the difference between locations in the United States is shrinking: in a study of U.S. municipalities from 1870 to 1990, Rhode and Strumpf (2003) found "a wide variety of preference and policy variables indicate that communities (as measured by municipalities and counties) have become more alike" (p. 1672). While we do not know for certain if Canada has seen a similar convergence, we may assume that preferences regarding public services may sometimes be a factor driving residential choice, but that the differences between public services in different communities may often be too minor to play an important role.

Schools and the Migration of Parents With Children

There is some evidence that the availability of a good local school is a contributing factor when young people elect to either remain in or return to their home area (Pedersen & Gram, 2018), when young families' choose a place to settle with their children (Wulff et al., 2008, p. 121; Schollie et al., 2017, p. 17), and when businesses decide where to set up shop (McGranahan et al., 2010; Schollie et al., 2017, p. 17). On the other hand, some studies question the link between school closures and outmigration. Egelund and Laustsen (2006) found through case studies of 30 Danish communities where schools had closed that the expected "devastating effects" were rare: in the majority of communities with the most significant population declines, the school closures were a consequence, not a cause, whereas in thriving communities, the schools had been repurposed as community spaces. Likewise, using data from rural Germany, Barakat (2014) found no evidence to support expectations of dramatic population decline following school closures. A more recent study in Portugal by Marques et al. (2020) reported similar findings, leading the researchers to conclude that decisions about school closures should be made on the basis of the extant population's quality of life, and not with the goal of attracting or retaining population. Elshof et

al. (2015) found more complicated patterns: their data from the Netherlands showed that villages without primary schools and villages whose primary school closed during the study period had higher rates of family outmigration than did villages with primary schools, but all villages had similar rates of family inmigration. In other words, the absence of a primary school was correlated with families moving out, but did not affect the flow of new families moving in.

If families do not simply choose a community on whether it has a school, they might do so based on quality of the schooling available to its residents. Literature on the correlation between residential choice and school quality is lacking in the Canadian context, but research elsewhere, even in places where schools are differently governed and funded, can provide useful insights. There is a significant body of such literature coming from the United States (e.g., Bayer et al., 2007; Clapp et al., 2008; Gehrke et al., 2019; Rothstein, 2006). Brunner and colleagues (2012), in a study of U.S. school districts, found that the introduction of interdistrict school choice — the possibility of choosing a school that is not the nearest to your house — resulted in an increase of population density and housing values. The implication is that when there are more schools to choose from in an area, it becomes a more attractive place for families to live. Similarly, when measuring school quality according to test scores, Bayoh and colleagues (2006) found that in Columbus, Ohio, school quality was positively correlated with residential choice. However, as Myers and Gearin (2001) argued, the importance of school quality when it comes to residential preferences declines as people get older. For young families, the presence of a good local school is important when choosing a place to live, but this is not generally true for others.

The presence or absence of a local school can also have effects on long-term mobility: the presence of a good school in the community may affect not just the mobility decisions of parents choosing where they want to raise their children, but also the mobility decisions of those children when they have grown up. This is because schools can foster place attachment for both adults and children. Community schools are places where children learn alongside their neighbours; parents and other community members can volunteer; and some community members find stable employment as teachers and support staff, as studies in The Netherlands (Elshof & Bailey, 2015), the United States (Howley & Howley, 2006; Lyson, 2002), New Zealand (Kearns et al., 2009), and Canada (Schollie et al., 2017) have shown. This research, and public discussions about school closures, remind us that the presence of a school in a community is perceived by residents to benefit the whole community, not just children (Tetanish, 2013), and schools become part of the community social fabric. If students are transported outside of their local community for school from a young age, if their parents rarely visit the school, and if their teachers do not live in the same community as the students, their place attachment to the community may suffer. It may be easier to leave a place that you have been used to leaving since your schooling began.

Qualitative research with rural young people in Europe and in the United States has also shown that they consider leaving town after high school to be just another part of the life course (Nugin, 2014; Sharp et al., 2020; Smith & Sage, 2014; Stockdale & Catney, 2014), particularly if the next step is post-secondary education. The fact that most post-secondary institutions, especially

universities, are in urban centres, means that rural youth are unlikely to be able to attend college or university while staying in place, and thus that many Canadian young adults migrate away from their home communities to pursue further education after high school (Walsh, 2009; 2013). On the surface, this tendency is straightforward but it is important to note that although proximity to a post-secondary institution is indeed consequential, participation is also mediated by socioeconomic and other factors. For example, one recent study found that young people from the northern parts of Canada's provinces who live farther from a college or university are less likely to attend, but their parents' income and encouragement mediate this "locational effect" (Zarifa et al, 2018). An older Canadian study found that distance did not determine overall post-secondary enrolment, but young people at greater distance from universities (and typically more rural) were more likely to enrol in a community college (Frenette, 2002; Looker, 2010). On one level, distance thus induces a closing off of certain opportunities. At the same time, since community colleges typically focus on "training" workers for local, specific jobs, this choice of post-secondary education by rural students might facilitate their being able to stay in the rural community while qualifying for a better paying job.

There is also a deeper, more subjective process taking place. For rural youth, social mobility is symbolically linked to geographic mobility: according to Canadian sociologist Michael Corbett (2010), rural public schools are largely responsible for driving mobility through "a complex of routine practices which privilege and valorize an exodus from the locale" (p. 236). As he wrote, "rather than support place-based ways of knowing and established social, economic and cultural networks in rural and coastal communities, the school has typically stood in opposition to local lifeworlds" (2007, p. 10; see also Huang et al., 1996). In other words, the rural school, with its standardized curriculum, prepares students for a future away from their rural hometown. The result is that rural students "learn to leave", as the pedagogy of rural schools is reinforced by rural parents, most of whom encourage students to obtain postsecondary education and subtly convey the message that to move out geographically is to move up socially (Looker & Naylor, 2009; Huang et al., 1996). The loss of young people who leave for further education is experienced not only as a general loss of population, but also as a "brain drain" that sees the most educated leave their communities, depriving those places of valuable skills and experience (Hillier et al., 2020; Sherman & Sage, 2011) — although it is important to note that there is lower demand for higher skilled workers in rural communities (Alasia & Magnusson, 2005).

Thus, there is a paradox in the literature around schools and youth mobilities. As discussed above, community schools play a demonstrable role in encouraging and linking social and spatial mobility — the "learning to leave" effect — but in other studies schools have also been found to be critical for attracting families with youth and retaining them in the community. As Tieken (2014)found in Arkansas, "a school — and especially a school district — gives a rural community state money and creates leadership positions: it provides resources, the ability to control them, and a voice" (p. 158). Studying school closures in Chicago, Ewing (2018) concluded that "in losing a school one loses a version of oneself — a self understood to be a member of a community, living

and learning in relation to other community members" (p. 131). Indeed, one study in Latvia and Sweden concurred, stating that, because schools so often serve as multidimensional community hubs, "in the context of depopulation, people often see the closing of rural schools as a sign that rural areas are 'dying' " (Šūpule & Søholt, 2019).

There are some grounds, therefore, to assume that schools are important to rural communities for attracting and retaining parents of young children, even as, at the same time, they prepare rural high school students to leave. But extant research does not uniformly support this assumption. Indeed, the weight of evidence suggests that schools follow population trends rather than the converse. Moreover, there is little quantitative research on the roles of schools in youth mobilities. There is thus value in inquiry that focuses on actual population movement rather than perceptions and mobility intentions, and that examines a large number of cases for patterns and correlations rather than relying on in-depth qualitative interviews with fewer cases.

The present article takes up this challenge, using a school remoteness index, developed by Alasia et al. (2017) for all CSDs in Canada, to check for correlations between remoteness to schools and population changes at the CSD level. The index, and our methodological approach, are discussed next.

Methodology

We use the index of remoteness to a school (for elementary and secondary education separately) that was calculated by Alasia et al. (2017). The index is calculated at the CSD level. In official Canadian usage, a CSD is an incorporated town or municipality (as determined by provincial and territorial legislation), or an area treated equivalently for statistical purposes (e.g., First Nations reserve[1], unorganized territory). The index, which ranges from 0.0 to 1.0, is based on the road distance from each CSD without a school to the nearest CSD with a school. Each CSD with a school was assigned a remoteness index of zero. CSDs without schools and not connected to a road network were not assigned an accessibility index. For all other CSDs, the first step was to calculate the distance to the nearest school as a ratio of the distance to the most remote school.

We took the index of remoteness to elementary and secondary education for every CSD in Canada, and matched it with CSD-level population counts for young people (aged 0–19) from the 2011 and 2016 censuses. The population counts were stratified into three cohorts by age in years, with ranges 0 to 4, 5 to 9, and 10 to 14 in 2011 (and, accordingly, 5 to 9, 10 to 14, and 15 to 19 in 2016). We then calculated the change in the size of each cohort between 2011 and 2016. For example, we counted the number in the youngest cohort (0–4) in 2011, and subtracted it from the number in that cohort in 2016 (when they were 5–9). It is important to note that we are not counting the same individuals for each census; rather, we are simply looking at the net change in the number of individuals. Some of the 0-to-4-year-olds from the 2011 count may well have taken part as 5-

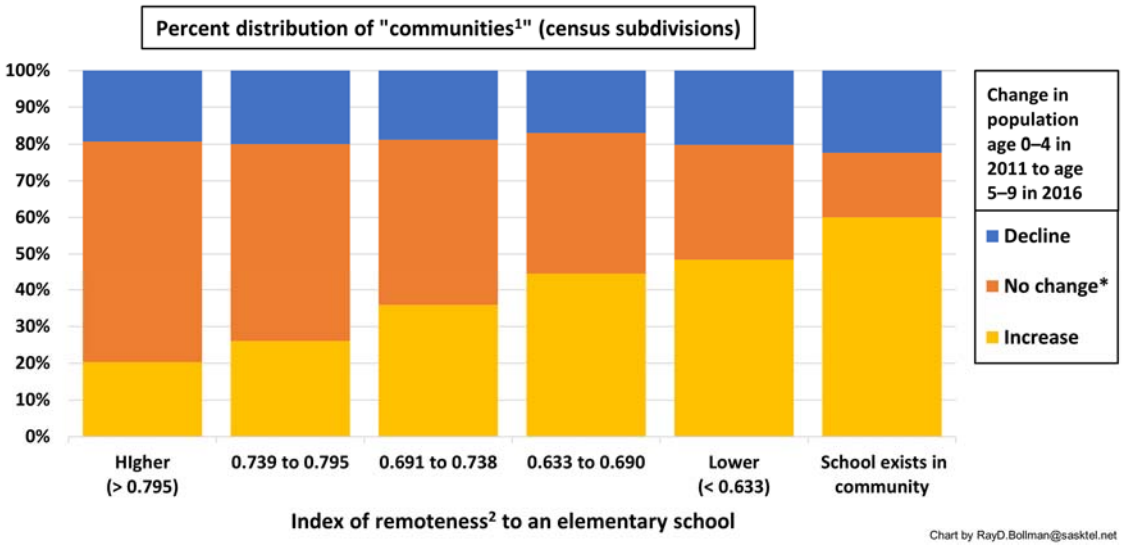
[1]Data on accessibility for First Nation reserves were not available at the time of writing due to the need for further verification of its accuracy, and are thus excluded from our analysis.

to-9-year-olds in 2016, but some of them would have moved away and been replaced by different individuals of the same age. An increase in cohort size from 2011 to 2016, then, should be interpreted as an indication that a CSD, by some combination of retaining, replacing, and adding cohort members, has experienced a net influx. The results are summarized next in Figures 1 to 4, where the size of the remoteness index and the size of the population change have been classified into ranges for ease of interpretation. Tabular results, with more detail, are presented in Tables 1 to 4 in the Appendix. The three highlighted rows in each table are the source of the data for the corresponding figure.

Findings

Across all age cohorts and analyses, we found that the majority of children live in a CSD with a school. The tables show that 53% of CSDs with children have an elementary school and 45% have a secondary school. However, given that the bulk of the population live in large urban centres, each of which has a school, well over 90% of Canadian children live in a CSD with a school. Only a very small proportion live in CSDs that lack a school, and so are classified as having some degree of remoteness, although the actual distance to the nearest school in another CSD varies widely, from close to very far. With this in mind, we present the results of the analysis.

Figure 1. *Communities Closer to an Elementary School Were More Likely To See an Increase in Children 5 to 9 Years of Age from 2011 to 2016*

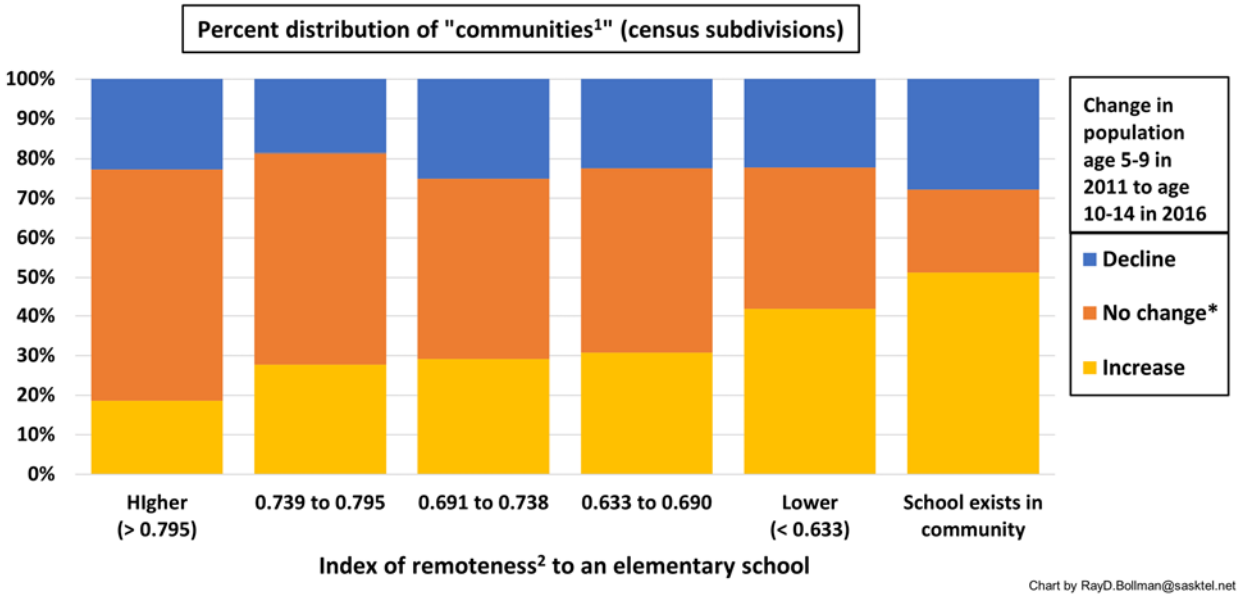


Note. In this figure, a "community" is a census subdivision (CSD). A CSD is the general term for incorporated towns and municipalities (as determined by provincial/territorial legislation) or areas treated as equivalents for statistical purposes (e.g., First Nation reserves and settlements, and unorganized territories). First Nation reserves are not included. CSDs with no individuals in 2011 or 2016 in the target age groups are excluded. Also excluded are some municipalities in Manitoba without consistent data in 2011 and 2016 due to amalgamations in 2015.
The index of remoteness was provided by Statistics Canada's Centre for Special Business Projects.
*"No change" includes (a) CSDs with a ±1% change in the number of children in the designated age cohort from 2001 to 2016, and (b) CSDs with less than 10 children in 2011 and less than 15 in 2016, in order to avoid the distortion of calculating a percentage change based on such small numbers.
The figure was assembled by Ray Bollman using data from Statistics Canada, Census of Population, 2011 and 2016.

Figure 1 shows, for each elementary school remoteness class, the distribution of communities (i.e., CSDs) by the size of the change in the number of individuals in the youngest cohort (aged 0–4 in 2011). While the difference in population changes across communities with lower and higher remoteness to elementary schools is not dramatic, it is clear that communities with lower remoteness scores (i.e., those with better access to a school) were generally able to retain, replace, and attract more young children via migration of their parents between the two census years.

Figure 2 depicts the distribution of communities for the next cohort — children aged 5 to 9 in 2011 — and summarizes the correlation between these population changes and proximity to elementary schools. Its results are similar to those for the younger age categories in Figure 1, although a smaller proportion of communities in each remoteness class saw increases in this cohort of children compared to the younger cohort.

Figure 2. *Communities Closer to an Elementary School Were More Likely To See an Increase in Children 10 to 14 Years of Age from 2011 to 2016*



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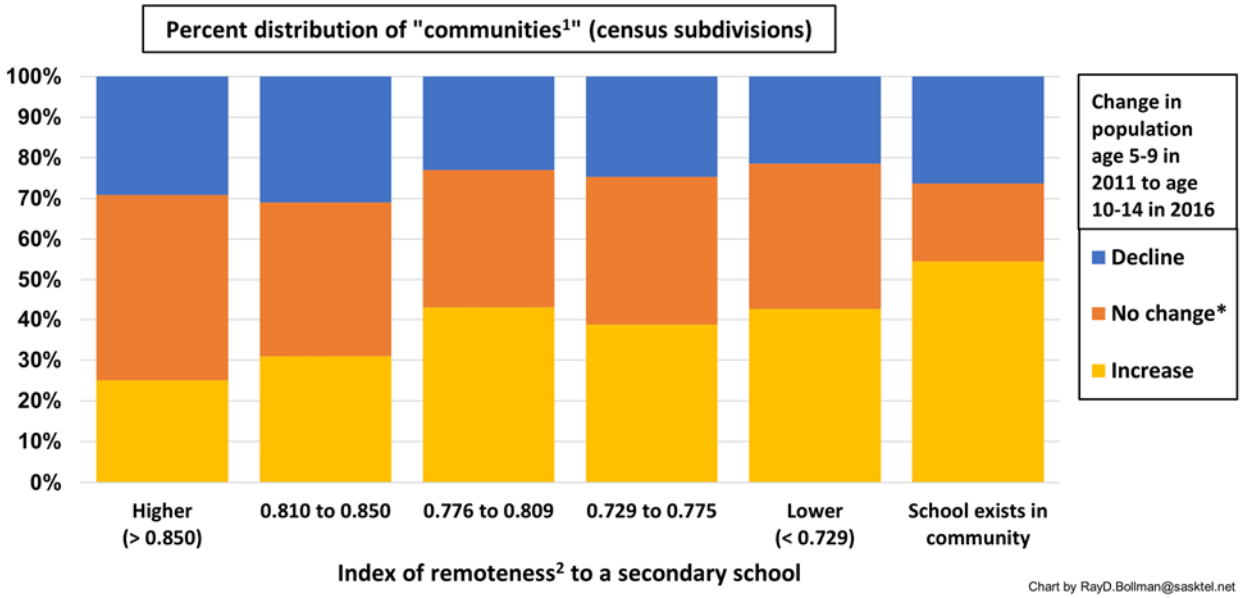
*"No change" includes (a) CSDs with a ±1% change in the number of children in the designated age cohort in the CSD from 2001 to 2016, and (b) CSDs with less than 10 children in 2011 and less than 15 in 2016, in order to avoid the distortion of calculating a percentage change based on such small numbers.
The figure was assembled by Ray Bollman using data from Statistics Canada, Census of Population, 2011 and 2016.

Figure 3 covers the same cohort (aged 5–9 in 2011) but depicts the distribution of communities for each secondary school remoteness class, which children at the older end of the cohort (aged 8–9 in 2011) would be likely to attend by 2016, when they were aged 10 to 12 years.

Figure 3. *Communities Closer to a Secondary School Were More Likely To See an Increase in Children 10 to 14 Years of Age from 2011 to 2016*



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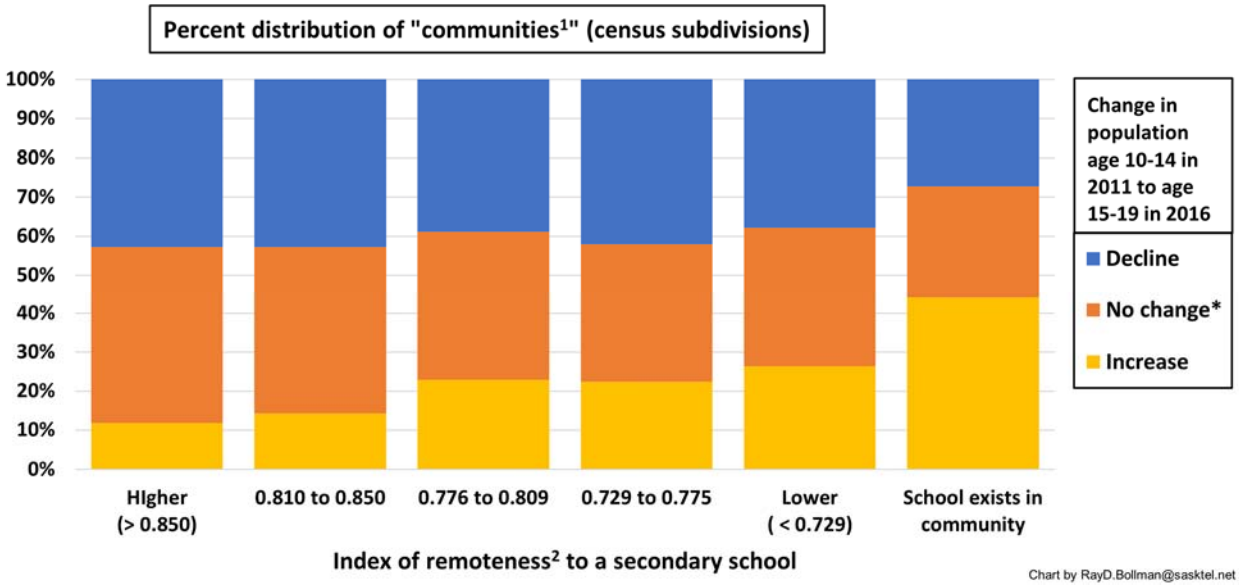
The figure was assembled by Ray Bollman using data from Statistics Canada, Census of Population, 2011 and 2016.

As Figure 3 shows, communities that are closer to a secondary school (i.e., that have a lower remoteness index) were more likely than communities farther away to see an increase in children aged 5 to 9 in 2011 and 10 to 14 in 2016.

Figure 4 shows the results when the next older cohort (aged 10–14 in 2011) is checked against CSD proximity to secondary schools. Again, we find that communities closer to a secondary school (those with a lower remoteness index) were more likely than those farther away to see an increase in this age cohort between 2011 and 2016.

Figure 4. *Communities Closer to a Secondary School Were More Likely To See an Increase in Children 15 to 19 Years of Age from 2011 to 2016*



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The figure was assembled by Ray Bollman using data from Statistics Canada, Census of Population, 2011 and 2016.

Limitations

There are a number of points to bear in mind when interpreting the results presented above. First, some CSDs had very small numbers of people in any given cohort, creating some "noise" in the data: the small number of observations in these CSDs may skew results. All data are also rounded to the nearest multiple of 5, adding to the noise. We have attempted to dampen this by classifying communities with very small numbers of children in each age cohort (in our case, this applies to CSDs with 5, 10, or 15 individuals in an age group) whose populations changed by 5 or less between 2011 and 2016 as "no change", to avoid these changes being represented as potentially large percentage swings that could skew the data.

Second, any correlation between schools and migration decisions does not tell us clearly about the direction of the relationship — whether people choose not to live in a place because there is no school, or whether there is no school in a place because people choose not to live there, or both. The only way to examine this more deeply would be to carefully select CSDs in which a school had been built or closed during the study period and examine inflows and outflows of population every year to determine whether the school change or the population change came first. Our data

also tell us only how close a school is to a given CSD, and nothing about school quality, so we do not capture movement that might happen as families move closer to subjectively determined "good" schools.

Third, population changes include internal migration within Canada, whether to a neighbouring CSD or from one end of the country to the other, and immigration and emigration. Some of the increases in population comprise newcomers to Canada, whose initial destination might be less likely to be based on school location than on other factors, such as employment alone, or the presence of a diaspora.

Conclusion

Despite the limitations noted above, the data analysed for this article provide support for the common belief that the presence of community schools helps communities, rural, urban, or otherwise, retain and attract young population. We find that communities closer to a school are more likely to see inmigration of school-age children. It is still likely that school closures follow population declines, and that school construction and maintenance tend to happen where there is adequate demand. However, none of this negates the possibility that a larger number of smaller schools could support population maintenance in rural communities. Our data show that the population effect that could be attributed to schools is not dramatic, at least not over the 5-year time period and within the cohorts examined here, but over longer periods of time, or in smaller communities where population losses and gains are more keenly felt, the link between schools and demographics may be more impactful.

Our analysis cannot address the paradox presented at the beginning of the article: we show support for the assertion that the presence of a school is correlated with population growth, but only among school-age children. We have no insight into the aggregate effects of the "learning to leave" (Corbett, 2007) phenomenon, as schools in places with increasing population may well be preparing their pupils for lives beyond the community, particularly if that community is rural. However, if the lessons from theories and studies of place attachment hold true, where one's school is will have an impact on where one feels most at home. Our analysis has provided a foundation for further quantitative research using the remoteness index to delve more deeply, perhaps in a multivariate analysis, into both the directionality of, and the factors mediating, the relationship between school accessibility and the change in the school-age population at the community level.

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Appendix

Note: Highlighted rows in Tables 1 to 4 are the source of the data for Figures 1 to 4 in the article.

Table 1. *Communities[1] Classified by Percent Change in Number of Children Who Were 0–4 Years in 2011 and 5–9 years in 2016 and by Degree of Remoteness to an Elementary School.*

Percent change in number of residents age 0-4 in 2011 to age 5-9 in 2016	Index of remoteness to an elementary school[2]						
	Higher (>0.795)	0.739 to 0.795	0.691 to 0.738	0.633 to 0.690	Lower (<0.633)	School exists in community	All census subdivisions[1]
	Number of census subdivisions[1]						
Decline more than -1.1%	33	45	47	41	52	547	765
Population decline (subtotal)	**33**	**45**	**47**	**41**	**52**	**547**	**765**
No change[3]	104	122	114	93	81	433	947
Population increase (subtotal)	**35**	**59**	**90**	**107**	**125**	**1,473**	**1,889**
1% to 9.9%	2	3	6	7	20	465	503
10% to 19.9%	6	11	22	26	29	480	574
20% to 29.9%	8	17	19	30	28	272	374
30% to 39.9%	8	6	16	22	22	122	196
40% or more	11	22	27	22	26	134	242
All census subdivisions[1]	172	226	251	241	258	2,453	3,601
	Row percent						
Decline more than -1.1%	4	6	6	5	7	72	100
Population decline (subtotal)	**4**	**6**	**6**	**5**	**7**	**72**	**100**
No change[3]	11	13	12	10	9	46	100
Population increase (subtotal)	**2**	**3**	**5**	**6**	**7**	**78**	**100**
1% to 9.9%	0	1	1	1	4	92	100
10% to 19.9%	1	2	4	5	5	84	100
20% to 29.9%	2	5	5	8	7	73	100
30% to 39.9%	4	3	8	11	11	62	100
40% or more	5	9	11	9	11	55	100
All census subdivisions[1]	5	6	7	7	7	68	100
	Column percent						
Decline more than -1.1%	19	20	19	17	20	22	21
Population decline (subtotal)	**19**	**20**	**19**	**17**	**20**	**22**	**21**
No change[3]	60	54	45	39	31	18	26
Population increase (subtotal)	**20**	**26**	**36**	**44**	**48**	**60**	**52**
1% to 9.9%	1	1	2	3	8	19	14
10% to 19.9%	3	5	9	11	11	20	16
20% to 29.9%	5	8	8	12	11	11	10
30% to 39.9%	5	3	6	9	9	5	5
40% or more	6	10	11	9	10	5	7
All census subdivisions[1]	100	100	100	100	100	100	100

1. In this table, a "community" is a census subdivision (CSD). A CSD is the general term for incorporated towns and municipalities (as determined by provincial/territorial legislation) or areas treated as equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories). In this table, Indian Reserves are not included and CSDs with no individuals in 2011 or 2016 in the target age groups are excluded. Also excluded are some municipalities in Manitoba without consistent data in 2011 and 2016 due to amalgamations in 2015.
2. The index of remoteness was provided by Statistics Canada's Centre for Special Business Projects.
3. "No change" includes (a) CSDs with a ±1% change in the number of children in the designated age cohort in the CSD from 2001 to 2016 and (b) CSDs with less than 10 children in 2011 and less than 15 in 2016, in order to avoid distortion of the calculated percent change based on such small numbers.
Source: Statistics Canada, Census of Population, 2011 and 2016.

Table 2. *Communities[1] Classified by Percent Change in Number Of Children Who Were 5–9 Years in 2011 and 10–14 Years in 2016 and by Degree of Remoteness to an Elementary School.*

Percent change in number of residents age 5-9 in 2011 to age 10-14 in 2016	Index of remoteness[2] to an elementary school						
	Higher (>0.795)	0.739 to 0.795	0.691 to 0.738	0.633 to 0.690	Lower (<0.633)	School exists in community	All census subdivisions[1]
	Number of census subdivisions[1]						
Decline more than -20%	26	25	37	23	21	158	290
-20% to -10.1%	13	10	9	20	25	248	325
-10% to -1.1%		6	15	11	12	273	317
Population decline (subtotal)	**39**	**41**	**61**	**54**	**58**	**679**	**932**
No change[3]	101	118	112	113	94	515	1,053
Population increase (subtotal)	**32**	**61**	**71**	**74**	**109**	**1,254**	**1,601**
1% to 7.9%	2	1	7	7	17	449	483
8% to 14.9%	5	7	15	15	28	386	456
15% to 24.9%	10	14	12	13	22	228	299
25% or more	15	39	37	39	42	191	363
All census subdivisions[1]	172	220	244	241	261	2,448	3,586
	Row percent						
Decline more than -20%	9	9	13	8	7	54	100
-20% to -10.1%	4	3	3	6	8	76	100
-10% to -1.1%	0	2	5	3	4	86	100
Population decline (subtotal)	**4**	**4**	**7**	**6**	**6**	**73**	**100**
No change[3]	10	11	11	11	9	49	100
Population increase (subtotal)	**2**	**4**	**4**	**5**	**7**	**78**	**100**
1% to 7.9%	0	0	1	1	4	93	100
8% to 14.9%	1	2	3	3	6	85	100
15% to 24.9%	3	5	4	4	7	76	100
25% or more	4	11	10	11	12	53	100
All census subdivisions[1]	5	6	7	7	7	68	100
	Column percent						
Decline more than -20%	15	11	15	10	8	6	8
-20% to -10.1%	8	5	4	8	10	10	9
-10% to -1.1%	0	3	6	5	5	11	9
Population decline (subtotal)	**23**	**19**	**25**	**22**	**22**	**28**	**26**
No change[3]	59	54	46	47	36	21	29
Population increase (subtotal)	**19**	**28**	**29**	**31**	**42**	**51**	**45**
1% to 7.9%	1	0	3	3	7	18	13
8% to 14.9%	3	3	6	6	11	16	13
15% to 24.9%	6	6	5	5	8	9	8
25% or more	9	18	15	16	16	8	10
All census subdivisions[1]	100	100	100	100	100	100	100

1. In this table, a "community" is a census subdivision (CSD). A CSD is the general term for incorporated towns and municipalities (as determined by provincial/territorial legislation) or areas treated as equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories). In this table, Indian Reserves are not included and CSDs with no individuals in 2011 or 2016 in the target age groups are excluded. Also excluded are some municipalities in Manitoba without consistent data in 2011 and 2016 due to amalgamations in 2015.
2. The index of remoteness was provided by Statistics Canada's Centre for Special Business Projects.
3. "No change" includes (a) CSDs with a ±1% change in the number of children in the designated age cohort in the CSD from 2001 to 2016 and (b) CSDs with less than 10 children in 2011 and less than 15 in 2016, in order to avoid distortion of the calculated percent change based on such small numbers.
Source: Statistics Canada, Census of Population, 2011 and 2016.

Table 3. *Communities[1] Classified by Percent Change in Number of Children Who Were 5–9 Years in 2011 and 10–14 Years in 2016 and by Degree of Remoteness to a Secondary School.*

Percent change in number of residents age 5-9 in 2011 to age 10-14 in 2016	Index of remoteness[2] to a secondary school						
	Higher (>0.850)	0.810 to 0.850	0.776 to 0.809	0.729 to 0.775	Lower (<0.729)	School exists in community	All census subdivisions[1]
	Number of census subdivisions[1]						
Decline more than -20%	46	44	34	35	26	104	289
-20% to -10.1%	42	46	29	33	36	139	325
-10% to -1.1%	11	34	29	33	25	185	317
Population decline (subtotal)	**99**	**124**	**92**	**101**	**87**	**428**	**931**
No change[3]	156	153	136	150	146	312	1,053
Population increase (subtotal)	**85**	**124**	**172**	**159**	**173**	**888**	**1,601**
1% to 7.9%	11	26	38	32	30	346	483
8% to 14.9%	17	26	49	45	49	270	456
15% to 24.9%	20	24	36	34	34	151	299
25% or more	37	48	49	48	60	121	363
All census subdivisions[1]	340	401	400	410	406	1,628	3,585
	Row percent						
Decline more than -20%	16	15	12	12	9	36	100
-20% to -10.1%	13	14	9	10	11	43	100
-10% to -1.1%	3	11	9	10	8	58	100
Population decline (subtotal)	**11**	**13**	**10**	**11**	**9**	**46**	**100**
No change[3]	15	15	13	14	14	30	100
Population increase (subtotal)	**5**	**8**	**11**	**10**	**11**	**55**	**100**
1% to 7.9%	2	5	8	7	6	72	100
8% to 14.9%	4	6	11	10	11	59	100
15% to 24.9%	7	8	12	11	11	51	100
25% or more	10	13	13	13	17	33	100
All census subdivisions[1]	9	11	11	11	11	45	100
	Column percent						
Decline more than -20%	14	11	9	9	6	6	8
-20% to -10.1%	12	11	7	8	9	9	9
-10% to -1.1%	3	8	7	8	6	11	9
Population decline (subtotal)	**29**	**31**	**23**	**25**	**21**	**26**	**26**
No change[3]	46	38	34	37	36	19	29
Population increase (subtotal)	**25**	**31**	**43**	**39**	**43**	**55**	**45**
1% to 7.9%	3	6	10	8	7	21	13
8% to 14.9%	5	6	12	11	12	17	13
15% to 24.9%	6	6	9	8	8	9	8
25% or more	11	12	12	12	15	7	10
All census subdivisions[1]	100	100	100	100	100	100	100

1. In this table, a "community" is a census subdivision (CSD). A CSD is the general term for incorporated towns and municipalities (as determined by provincial/territorial legislation) or areas treated as equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories). In this table, Indian Reserves are not included and CSDs with no individuals in 2011 or 2016 in the target age groups are excluded. Also excluded are some municipalities in Manitoba without consistent data in 2011 and 2016 due to amalgamations in 2015.
2. The index of remoteness was provided by Statistics Canada's Centre for Special Business Projects.
3. "No change" includes (a) CSDs with a ±1% change in the number of children in the designated age cohort in the CSD from 2001 to 2016 and (b) CSDs with less than 10 children in 2011 and less than 15 in 2016, in order to avoid distortion of the calculated percent change based on such small numbers.
Source: Statistics Canada, Census of Population, 2011 and 2016.

Table 4. *Communities[1] Classified by Percent Change in Number of Children Who Were 5–9 Years in 2011 and 10–14 Years in 2016 and by Degree of Remoteness to a Secondary School.*

Percent change in number of residents age 10-14 in 2011 to age 15-19 in 2016	Index of remoteness[2] to a secondary school						
	Higher (>0.850)	0.810 to 0.850	0.776 to 0.809	0.729 to 0.775	Lower (<0.729)	School exists in community	All census subdivisions[1]
	Number of census subdivisions[1]						
Decline more than -19%	81	89	78	74	54	198	574
-19% to -7.6%	48	83	85	98	74	329	717
-7.5% to -1.1%	13	34	29	35	47	271	429
Population decline (subtotal)	**156**	**153**	**136**	**150**	**146**	**312**	**1,720**
No change[3]	166	154	134	127	138	329	1,048
Population increase (subtotal)	**43**	**51**	**80**	**80**	**102**	**506**	**862**
1% to 11.9%	10	18	35	33	41	337	474
12% or more	33	33	45	47	61	169	388
All census subdivisions[1]	351	411	406	414	415	1,633	3,630
	Row percent						
Decline more than -19%	14	16	14	13	9	34	100
-19% to -7.6%	7	12	12	14	10	46	100
-7.5% to -1.1%	3	8	7	8	11	63	100
Population decline (subtotal)	**9**	**9**	**8**	**9**	**8**	**18**	**100**
No change[3]	16	15	13	12	13	31	100
Population increase (subtotal)	**5**	**6**	**9**	**9**	**12**	**59**	**100**
1% to 11.9%	2	4	7	7	9	71	100
12% or more	9	9	12	12	16	44	100
All census subdivisions[1]	10	11	11	11	11	45	100
	Column percent						
Decline more than -19%	23	22	19	18	13	12	16
-19% to -7.6%	14	20	21	24	18	20	20
-7.5% to -1.1%	4	8	7	8	11	17	12
Population decline (subtotal)	**44**	**37**	**33**	**36**	**35**	**19**	**47**
No change[3]	47	37	33	31	33	20	29
Population increase (subtotal)	**12**	**12**	**20**	**19**	**25**	**31**	**24**
1% to 11.9%	3	4	9	8	10	21	13
12% or more	9	8	11	11	15	10	11
All census subdivisions[1]	100	100	100	100	100	100	100

1. In this table, a "community" is a census subdivision (CSD). A CSD is the general term for incorporated towns and municipalities (as determined by provincial/territorial legislation) or areas treated as equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories). In this table, Indian Reserves are not included and CSDs with no individuals in 2011 or 2016 in the target age groups are excluded. Also excluded are some municipalities in Manitoba without consistent data in 2011 and 2016 due to amalgamations in 2015.
2. The index of remoteness was provided by Statistics Canada's Centre for Special Business Projects.
3. "No change" includes (a) CSDs with a ±1% change in the number of children in the designated age cohort in the CSD from 2001 to 2016 and (b) CSDs with less than 10 children in 2011 and less than 15 in 2016, in order to avoid distortion of the calculated percent change based on such small numbers.
Source: Statistics Canada, Census of Population, 2011 and 2016.