CAUSES AND CONSEQUENCES OF REGIONAL POPULATION DECLINE FOR PRIMARY SCHOOLS

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ABSTRACT
During the past few years, the Dutch education system has been confronted with a sharp decline in the number of pupils. Especially in rural villages, inhabitants fear for the closure of their local primary school, which is perceived as a very negative development for local village life. This paper shows that the relatively sharp decline of the number of pupils in the next decade can be explained by a wavelike pattern in the past and projected number of pupils, resulting from the baby bust of the 1960s and 1970s. The relative decrease in pupils will almost be as strong in future depopulating (Anticipaat) regions as in present day declining (Topkrimp) regions. However, municipalities in the Topkrimp regions have many smaller primary schools which implies that they will have to deal with school mergers and closures in the near future. The paper concludes that long term effects of school closures on local society are not as devastating as often perceived.

Key words: Depopulation, village school, wavelike birth patterns, projected pupil developments, school closure, local society

INTRODUCTION
Just as in other countries in Europe (Reher 2007), the population of the Netherlands is expected to decline in the future. The Netherlands is relatively late in this respect in Europe, with the turning point from growth to decline not expected until the second half of the 2030s, whereas many other countries, predominantly in the East and South are already declining. Nevertheless, there are strong regional differences within countries. Broadly speaking, the rural and peripheral regions are leading in population decline, whereas the central urbanised regions continue to grow (Haartsen & Venhorst 2010; Galjaard et al. forthcoming). The driving mechanism of this process is urbanisation. Young people leave the rural countryside because of study, work, and other amenities in the larger cities. This is one of the most dominant demographic trends both over time and across space (Zelinsky 1971; Rees et al. 1997) and one of the most dominant manifestations of human development (United Nations 2009).

In October 2011, the Dutch Ministry of BZK (Internal Affairs) presented a geographical delimitation of the different regions in The Netherlands, that formed the basis of the new national policy on the consequences of population decline (Interbestuurlijke Voorzorgsrapportage Bevolkingsdaling 2011) (see Figure 1). Two types of regions are designated:
the so-called Topkrimp regions, that already experience substantial and structural decline of population and numbers of households, and the Anticipeer regions, that will experience population decline and decreasing numbers of households in the period 2010–2020 or 2020–2040. The national government acknowledges that these regions deserve special attention.
regarding questions on how to deal with a declining and ageing population, such as structural housing vacancies, the need for housing market restructuring, the growing demand for healthcare, diminishing thresholds for facilities and services, and so on. However, there hardly are public resources available for specific policies dealing with these phenomena.

In the context of public services and facilities, developments in quantity and quality of primary and secondary education are an important and urgent topic. Since 2003 there has been a sharp decline in the number of pupils in the age group 4–12 years in the Netherlands. This has had severe consequences for childcare facilities, and for primary and secondary education. Because of declining numbers of pupils, many schools may be confronted with financial and staffing problems (Moseley & Owen 2008; Huitsing & Bosman 2011), and for some of them closure may be the only solution. Schools closures are often perceived as a negative development, especially in more remote rural villages. Children and schools are perceived as symbols of sustainable local societies (Witten et al. 2001; Egelund & Laustsen 2006). This also applies for youth, although at the village level, not much can be done to prevent youth leaving the village for higher educational reasons (Thissen et al. 2010). Potential loss of the primary school can be perceived as a heavy loss or as the deathblow of local villages, as it symbolises the loss of the new generation.

This paper examines the causes and consequences of population decline for primary schools in the Netherlands. It starts with providing an overview of past and expected numbers of children in the primary school age group (4–12 years old). It discusses the effects of repetitive birth waves in the past and future on the population composition. Next, it presents an overview of the number and size distribution of primary schools in the Netherlands. For both expected pupil developments and primary school sizes, regional differences and the specific situation in the Dutch *Topkrimp* and *Anticipeer* regions are described. Finally, the paper also addresses the potential effects and impacts of school closures on the local community and whether or not a school closure can be considered the symbolic end of a village.

**PAST AND EXPECTED NUMBERS OF CHILDREN**

Developments in the number of primary school pupils depend on both the number of live births and numbers of women in fertile ages. Figure 2
shows that the number of live births in the Netherlands dropped sharply in the new millennium, from 207,000 in 2001 to 180,000 in 2011. This sharp drop is caused by the decrease in the number of women in the fertile age range. As shown in Figure 2, the number of women in the age range 25–35 (i.e., the age where most Dutch women give birth) decreased from 1.278 million in 1996 to 999,000 in 2011. This drop in the number of fertile women and consequently the number of live births observed in the last decade is an echo of the baby bust of the late 1960s and 1970s, resulting in a drastic reduction of the size of successive cohorts. According to the national population projections, the number of births will not decrease further, but will develop in the same wavelike pattern with booms (2028 and 2058) and busts (2012 and 2042).

Figure 3 shows the development in the size of the age group 4–12 years old in the Netherlands. The downward trend started around 2005 at 1.8 million, will stop around 2020, after which the size of the age group stabilises for a number of years at 1.65 million, and after 2024 will rise again to 1.73 million.

Figure 4 shows that between 2010 and 2020 the number of children in the age group of 4–12 years old will reduce substantially in most municipalities. An increase is foreseen in only 48 out of 415 municipalities (12% of all municipalities). These rejuvenating municipalities include the four largest cities in the west, as well as various other municipalities in the urbanised West, and the larger cities in the North of the Netherlands (Groningen, Leeuwarden, Zwolle). Moreover, regions of strongest decline are found in the province of Drenthe, Southwest Friesland, the Eastern border (Achterhoek), and the Southern part of the country (Brabant, Zeeland, Limburg). Some of the regions that faced the largest population loss in the last decade, such as Topkrimp regions Oost-Groningen, or South Limburg, will continue to experience large reductions in the number of primary school children, but not at the highest rate. Interestingly the relative decrease of 21 per cent in the number of school pupils of the Anticipeer municipalities in this period 2010–2020 is not too dissimilar from the decline projected for the Topkrimp municipalities of 23 per cent. This indicates that the problems around the provision of school facilities will no longer be restricted to the core declining regions, but spread to a much larger number of Dutch municipalities.

A HARD TIME FOR PRIMARY SCHOOLS

According to the Dutch Ministry of Education, Culture and Science, the Netherlands has 6,966 primary schools in 2012 (Dienst Uitvoering Onderwijs 2012). These are both public and religiously denominated schools, such as...
Source: Statistics Netherlands (2012c).

Figure 4. Relative change in the expected numbers of primary school pupils, 4–12 years old in the Netherlands 2010–2020.
as Christian, Catholic, and Dutch Reform. The schools vary in size: 5 per cent are very small schools (less than 50 pupils) and 15 per cent are small schools (50–99 pupils) (see Table 1). Almost half (45 per cent) of all schools can be considered large schools, with more than 200 pupils. The quality of small schools (less than 100 pupils) slightly lags behind: the quality of 6.5 per cent of the small primary schools can be considered weak or very weak, compared to 4.4 per cent at the national average. However, compared to 2009 and 2010, quality differences between smaller and larger schools have become less pronounced. In 2011, no quality differences are found between small schools (50–100 pupils) and very small schools (less than 50 pupils). Especially schools that have experienced a strong decline are classified weak or very weak. Some of the school boards in depopulating regions find it hard to keep up the quality of education, because they have to deal with relatively less financial resources and staff per pupil (Sikkes 2011; Inspectie van het Onderwijs 2012).

Figure 5 shows that municipalities which are dominated by small schools are concentrated in the more peripheral, rural parts of the Netherlands in the North and the South-West. Table 1 shows that these municipalities overlap to a considerable extent with Topkrimp and Anticipeer regions. In Topkrimp regions 35 per cent, and in Anticipeer regions 26 per cent of all schools are smaller than 100 pupils, whereas the corresponding percentage is 16 in the rest of the Netherlands.

Because of the decreasing numbers of pupils of primary schools, the issue of the minimum size of a viable primary school has become important. Van Leer et al. (2012) describe that school boards in the largely rural province of Drenthe strive for schools with at least 80 to 100 pupils. This makes it possible to create four combination classes and a financially healthy school. Combinations of primary schools with pre-school childcare and after school care, such as the so-called ‘brede school’ (Du Bois-Reymond 2009), are increasingly popular. According to Van Heeswijk (2010), who developed some future scenarios for the (re)organisation of the schools and childcare facilities in municipalities in the North of the Netherlands, a primary school needs at least 160 pupils to be able to be part of a viable integrated child facility with good educational quality.

According to Ribchester and Edwards (1999), arguments for the educational effectiveness of small schools are a personal, family-like atmosphere, a low pupil/teacher ratio resulting in more attention for weaker pupils and pupils benefiting from extending their peer group with older and younger children. Arguments against small schools are a small number of staff, a limited range of teaching methods and styles, difficulties in teaching a wide range of ages and abilities in a single class, and isolated, limited numbers of children in a similar age and stage of development, resulting in less opportunities to make friends. At present, anti-small school sentiments seem to dominate in Dutch discussions. Especially because of the image of relatively lagging quality of small schools compared to larger ones, and the relatively large sensitiveness of small schools for financial and staff issues, larger schools are in favour. If the minimum size of 160 pupils as proposed by van Heeswijk (2010) in his scenarios for the

### Table 1. School size and type of municipality.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Number of pupils of primary schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;50</td>
</tr>
<tr>
<td>Other (%)</td>
<td>4</td>
</tr>
<tr>
<td>Anticipeer (%)</td>
<td>7</td>
</tr>
<tr>
<td>Topkrimp (%)</td>
<td>10</td>
</tr>
<tr>
<td>Total (%)</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Dienst Uitvoering Onderwijs (2012) and own calculations.

Note: The observed difference is significant at the 1% level of confidence, using a Chi-square test with 8 df.
North of the Netherlands (2010) were to be taken as the standard, according to Table 1 currently at least 35 per cent to 40 per cent of primary schools are too small to be viable.

One of the strategies to cope with the consequences of depopulation is merging smaller schools, especially if a village has more than one small school. However, for historical reasons

Source: Dienst Uitvoering Onderwijs (2012) and own calculations.

Figure 5. Number of small and very small schools (<100 pupils) per municipality.
this is not a simple task in the Netherlands. Many schools are characterised by a specific religious denomination and school boards often want to maintain that special character. Nevertheless, secularisation has reduced this segmentation in recent years. Nowadays, parents’ school preference is often based on quality, school atmosphere and accessibility, and much less on religious arguments (Van der Wouw et al. 2010). This opens up the way for schools to collaborate more closely. Especially for small, rural village schools, co-operation with other schools can help to solve staff and financial problems (Huitsing & Bosman 2011).

**EFFECTS OF SCHOOL CLOSURES ON THE LOCAL SOCIETY**

In their main function of providing education to children, primary schools are a central service in the everyday lives of parents and young children. A school closure has great impact on daily life patterns and routines. It directly results in practical problems on how to get the children to the new, more remote school. These consequences are most negatively pronounced for those families with few resources (Witten et al. 2001). Primary schools also have secondary functions. These vary from ‘informational (e.g. news of a neighbourhood), to the material (e.g. grounds and buildings for community use) to the social (e.g. networks and sources of support)’ functions (Witten et al. 2001. p. 309). Schools are informal meeting places. They also have an emotional, more symbolic meaning in the rural community. Schools are a symbol of a healthy, viable and prosperous community (Woods 2005). Because of these different functions of schools, a potential school closure is often perceived as the end of the village, or the ‘death blow’ of local society (Egelund & Laustsen 2006).

However, from several research projects it has become clear that the local village school need not be decisive in making a village liveable or maintaining a lively local society (Egelund & Laustsen 2006; Gardenier et al. 2011; Kovács 2012; Van der Wouw et al. 2012). Also villages without schools are perceived as very liveable and community feelings can be very strong without having a local school in the village. Having an alternative place where one can meet other villagers is important. In Denmark, Egelund and Laustsen (2006) found that the secondary functions of primary schools were substituted by memberships of local associations and networks, 3 to 13 years after the school closure. They conclude that a school closure is not the end of the village. The potential of local communities to create alternative meeting places and networks strongly depends on the amount of social capital in the community (Putnam 2000; Halpern 2005). Halpern (2005) defines social capital as the potential of benefits to the individual through his interpersonal network. The potential problem for local societies in remote, depopulating areas in Europe is the lack of people and thus the lack of social capital that impacts on the local society.

In the Netherlands, the situation is slightly different, because there are hardly any regions which are comparably remote. Moreover, even the relatively peripheral, depopulating regions attract newcomers from elsewhere, although these migration flows are too small in size to counter depopulation (Bijker & Haartsen, forthcoming). However, more recent newcomer parents have less emotional commitment to the village school and are inclined to use ‘their cultural capital and spatial power to shop around to find what they believed to be the “right” school’ (Walker & Clark 2010, p. 242). This may result in not sending their children to the local village school but to more distant larger or better schools. Potential local school closures can therefore also be viewed as opportunities to establish a viable, jointly run school of high quality with neighbouring villages (Kovács 2012).

**CONCLUSION**

Based on the projections, the decline in the total numbers of primary school pupils is most significant from 2005 to 2020, and only after 2024, pupil numbers will start rising again slightly, as a result of past wavelike baby booms and baby busts. Decline of pupils is expected all over the Netherlands, not solely in the more remote and already depopulating regions. However, the *Topkrimp* and *Anticipeer* regions that form part of the national population decline policy, do have the largest numbers of
very small and small primary schools. Especially in these regions relatively many primary school closures can be expected in the coming decade. These school closures do have impact on families’ daily life patterns, but need not have devastating effects on local village life, if the local community is able to find alternative places for the villagers to meet and has a sufficiently strong local network to maintain the local social capital.

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