

A ‘recipe for depopulation’? School closures and regional population decline in Saxony

extended abstract for EPC 2010, stream ‘Internal migration, regional and urban issues’

Bilal F. Barakat
Vienna Institute of Demography

14th December 2009

Affected parents, journalists, and local politicians frequently assert that closing the last primary school marks the demographic death of a community, because no young parents will remain, much less move in. School closures have been described explicitly as a ‘recipe for depopulation’ (quoted by Grigor and Rowe, 2001). However, this notion is rarely subjected to rigorous analysis. Are school closures in fact a cause or consequence of local decline?

This study begins with a comprehensive review of existing research on the relationship between school location and local population decline. In rapidly shrinking regions, falling enrollments are creating an under-utilization of education facilities, while imbalances created by difficult-to-predict local migration may create unexpected enrollment booms in cities. Local provision is especially critical with regard to schooling because it is accessed almost daily by the beneficiaries (unlike libraries or theatres) and is considered part of everyday life rather than an exception (in contrast to health services). There is also a tension between the question of technical efficiency (Fickermann and Weishaupt, 1997) and the fact that schools fulfill important community functions besides teaching (Lyson, 2002).

Testable hypotheses regarding the link between schooling and local population decline are derived from this review, such as that the closure of the penultimate school may be as critical as the final closure. We go on to analyse methodological problems relating to the empirical analysis of this relationship. A number of problems exist in this context, chiefly the fact that the temporal relation of events does not allow for a causal interpretation. If school closures are partly based on enrollment forecasts, population decline may be a cause rather than a consequence, even if it occurs *after* the closure. However, not every school that is forecast to shrink is actually closed. In addition, a qualitative analysis of district-level planning documents indicates that local population forecasts are not the main location criterion, thus mitigating the endogeneity problem.

Taking these insights into account, an empirical case study, namely the Eastern Germany province of Saxony for the period 1994–2007, is analysed statistically, based on municipality-level data from the provincial statistical

office, the German Federal Institute for Research on Building, Urban Affairs and Spatial Development, and district education authorities.

Saxony is an interesting case study for several reasons. The province suffered a large relative enrollment decline and consolidation of the school network in the recent past, but has a large absolute number of municipalities; accordingly, there occurred a significant number of school closure events which can be studied. The enrollment decline resulted from a massive decline in the overall population, caused both by a collapse in the fertility rate in the formerly East German provinces following reunification, and significant internal migration from East to West Germany, especially of young women (leading to one of the most distorted adult sex ratios in Europe). In all, the school-age population approximately halved relative to its peak. While the absolute size of new birth cohorts had stabilized by the end of the study period, the previous decline was still working its way up through the school system. The data on school location and local population is easily available, although one of the data limitations is the fact that only very small municipalities are at risk of losing their only primary school, but many data on contextual factors are either not considered reliable or not published at all for municipalities with fewer than 5,000 inhabitants.

Approximately 500 municipalities were categorized according to whether they never had a local primary school, lost their only primary school, kept their only primary school, lost their last-but-one primary school, or had several primary schools over the course of the study period. Both the longitudinal perspective (Is population loss greater following closure than before?) and the cross-sectional perspective (Is population loss greater in municipalities with closure than in those without?) are considered.

The results suggest that in contrast to the prevailing discourse, there is little discernible evidence for an effect of primary school closures on local population decline. Changes in school location have little observable impact on overall population development at municipality level, or on in- or out-migration separately (including by gender). Secular trends in migration between small municipalities in the *hinterland* and major cities drown any possible school location effect.

These results do not address the important questions of the effect of school closures on the overall quality of life of those affected, or indeed on the quality of education. Potential negative effects of school closures on overall quality of life, in terms of loss of children's time, parent's anxiety, loss of community cohesion and so forth, are not necessarily reflected in increased out-migration. This may especially be the case if no alternative residency in the surrounding region promises a sufficiently large improvement.

A number of possible explanations exist for the result. To begin with, the demand-driven closures prior to 2001 were self-selecting. Schools competed with each other for students in order not to be the first in line for closure. As a result, those municipalities were most likely to lose their school where

parents were already willing to send their children to commute to a ‘better’ school in a neighbouring community. For them, the local closure did not change their situation. Conversely, precisely those parents who would potentially have moved away after a closure because of strong feelings about the benefits of local schooling are likely to have been most engaged in ensuring that their community’s school was successful in attracting additional students. Secondly, school transportation arrangements in Saxony may simply be of sufficiently high quality not to cause an undue burden on students or intolerable distress to parents. Thirdly, in the context examined here, there are disincentives to local relocation due to the relatively high rate of home ownership. More than half of dwellings in municipalities with fewer than 5,000 inhabitants are occupied by the owner, compared to less than 20 percent in larger municipalities. Home ownership is also highest across all community sizes for households with three or more members, i.e. families with children. Finally, the additional burden of travelling to a neighbouring community for primary schooling is moderate. The need to travel for post-primary schooling is in any case accepted as unavoidable, since municipalities that are candidates for closure of their only primary school do not normally host a middle school or gymnasium. But given that based on the low level of fertility families typically only have one or two children, combined with the fact that the primary school phase lasts only four years, the additional travel requirement caused by primary school closures often amounts to a strictly temporary period.

In combination, these factors make clear that even fairly great discontent with a local closure will not necessarily — or even very likely — result in a family relocation.

The apparent weakness of a depopulation effect of primary school closures may contradict commonly and strongly expressed opinions, but is in line with the (scant) research findings in other countries. In rural Scotland, Forsythe (1983) found no depopulation effect, and more recently, Goudy (1994) in the USA and Egelund and Laustsen (2006) in Sweden found the evidence to be either inconclusive or suggests school closures to be a consequence rather than a cause of depopulation. More interesting, if more speculative, are therefore interpretations that do not rely on specific features of the Saxony case, but reframe our understanding of the general principles at work.

In particular, note that what denies us an easy causal interpretation is not the fact that municipalities that suffered school closures did not suffer population loss, or even that they did not suffer increased population loss following the closure, both of which are in fact the case. Rather, it is the fact that this decline was shared to the same extent by neighbouring communities that did *not* suffer a school closure. Rather than interpret this as evidence that closures have no depopulation effect, we may interpret this as an indication that if they do have such an effect, it operates not at the local but at the regional level.

Indeed, the very arguments raised against school closures by affected com-

munities, which go far beyond the tangible inconvenience of travel time to school, namely that it is the loss of the school as a focal point of community life that is threatening, provide a reason for why one might expect to observe the results we do. In particular, the schools that remain also lose their role as a purely local affair. If the parents of the commuting children no longer feel as closely integrated into the school community, the parents of the children in the remaining schools' locality likewise lose the valued privilege of being personally acquainted outside of the school environment with other parents in their child's class. School closures impact not only the lifestyle where the closure occurs, but also neighbouring communities where it does not.

Moreover, it has been noted in the East German context that 'it is not the actual education and job opportunities that influence the [migration] decisions of young adults. The very perception by young people that their native locality is not fit for the future encourages their departure. Image is a stronger determinant of the development of rural areas than previously thought' (BIBE, 2009). It would not be surprising then, if, far from benefitting neighbouring communities by increasing their 'relative competitiveness', school closures create the negative externality of decreasing the region's attractiveness as a whole.

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