

out the country - their distribution chiefly being influenced by geography.

Work in shifts

The greatest number of satellite schools have small enrollment, so, as a consequence they work in one shift. Central schools, on the other hand mostly work in two, some even in three shifts. Central schools have much higher enrollment, so as a result, the great majority of primary school students in Serbia attend a school with two shifts. This situation has existed for such a long time that most people, even education experts, take it for granted. In fact, one very rarely hears mention of the globally acknowledged goal of the organizing of primary education in one shift.

For the above reason, the exceptions to the two shift rule for central schools are potentially quite important. It is our belief that this country's educational authorities have to publicly acknowledge the organization of all primary schools in one shift as a concrete, albeit long term goal of Serbia's education system. The fact that this goal seems far away in the current economic situation facing Serbia should not deter the

country's education planners from pursuing the goal. One thing that is possible is to analyze the functioning of those central schools that are already working in one shift.

Currently, the principles of these schools are terrified to acknowledge that their schools work in a single shift. The reason for this is fear of what is usually deemed "rationalization", i.e. the closing down of schools for often not well thought out reasons that go under the guise of "economic streamlining".

It is important to note how "optimization" of the network of schools differs from its "rationalization". Optimization takes a deeper look into all the consequences (not just the financial ones) of changes in the functioning of the network of schools.

From this point of view, for example, those central schools that are already working in one shift should be treated as part of a pilot program whose aim would be to truly understand the pedagogic and other advantages single shift schools may offer. At the same time, a detailed comparative study should be made of the cost of running such schools. Map 8 shows the spatial distribution of central primary schools working in



Map 8:
 Central schools working in only one shift. The only place that has more than one such school is Belgrade, with a total of 13 single shift schools (2001/2002 school year).

one shift.

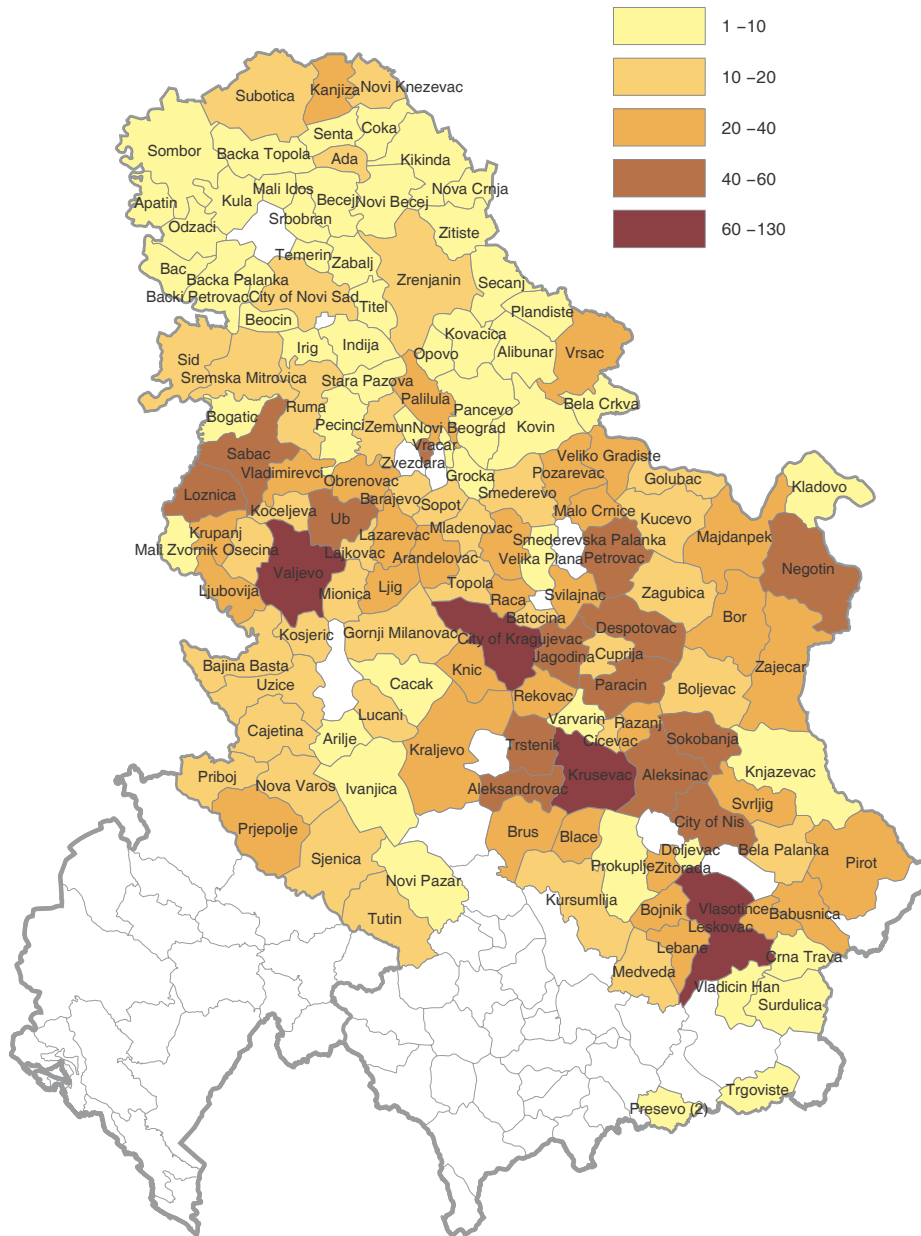
Single shift schools are more open to the local community, allowing other members of that community access to school facilities after the end of classes. In this way single shift schools can better organize extracurricular activity, adult education courses, permanent education courses, etc. Not only is it possible to organize things better in such schools, and to have a more child friendly environment, an environment more conducive to true learning, but the bottom line cost of all of these activities might be lower as well. As a rule, quite a large number of students in Serbia partake in out of school activities that used to be organized in schools - study of foreign languages, various sports activities, music, preparatory courses in mathematics and sciences, computer courses, etc.

If one is optimizing the Ministry of Education's expenditures then, from a purely economic point of view, the more shifts the better. However, if we are a bit less bureaucratic and optimize overall expenditures on education (including transportation costs, and the expenditure of time in going from one out of school activity to another) then it is quite possible

that single shift schools will not only be better, but cheaper as well. One shouldn't jump to conclusions, but rather make an expert evaluation over the course of one or two years using those schools that do work in one shift. We'll spend more time on various optimization strategies in a following section.

Of the 1,096 central schools in our database 967 have answered questions regarding the number of shifts they work in. Of these, 201 schools work in a single shift (20.8%), the majority of schools, 732 of them, or 75.7% work in two shifts, while 34 schools work in three shifts (3.5%). The existence of primary schools working in three shift is a significant problem facing the system. Map 9 displays the distribution of these schools cross the country. As we can see their greatest clustering is in the cities of Novi Pazar and Novi Sad. In fact, all 6 central schools in Novi Pazar work in three shifts! The fact that only 34 primary schools in Serbia work in three shifts makes the solving of this problem tractable - after all 3.5% translates into something close to 4% of all students. It is clear where to start from in solving this problem - from Novi Pazar.

Although three shift schools are



Map 10:
Municipalities with greatest number of multi-grade classrooms (2001/
2002 school year).

large inner city schools, they do not necessarily have the largest number of students. Of the 10 central schools in Serbia with largest enrollment only 3 work in three shifts (numbers 8 - 10).

Multigrade classrooms and demographic changes

Let us step away from the largest schools and look at a further important indicator - the number of multigrade classrooms in a given school. Generally, multigrade classrooms are present in smaller schools. The average distribution of multigrade classrooms by municipality is given in Map 10.

Photographs:

Top right:

All the students in one multigrade classroom: 5 first graders, 3 second graders, 5 third graders, 2 fourth graders. In addition, a preschooler attends class with her older sister. Small rural schools like this one in Stup offer a safe and child friendly environment. This often balances out the fact that such schools are generally under equipped.

We have seen that demographics in general, and the demographics of the primary school population in particular, plays a very important role in the network of schools in Serbia. In the previous section we saw that with few exceptions the demographic trends are negative - in these regions the strongest effect is on the functioning of small schools. Conversely, in the few areas where the demographic trend is positive one sees the strongest effects when looking at large schools - an example of this is Novi Pazar. This demographic trend is one reason why all the primary schools in this city work in three shifts - the existing school capacity being more in tune with the situation a few decades in the past

Bottom right:

Words to live by. The mottos on the wall of a little school in the village of Vapa:

"To know a lot is not necessarily to understand a lot". (Heraclitus)

"Children are the most beautiful flower on the worlds multicolored field". (M. Gorky)

"Children, hark your elders guidance, do no wrong, damage naught". (St. Sava)

"The secret of good upbringing is in respecting your student as a person". (R. W. Emerson)

