## Calculated Chaos: Why data is still the best tool to tackle infrastructure planning – a focus on education

The socio-economic assessment within an EIA considers all of the social and economic aspects of how developments are used. This includes the impact of new population and employees on the local areas within which developments are located. A major factor in this is the assessment of the impact of development upon social infrastructure. This informs the strategy for mitigating impacts on facilities such as schools, health and open space. Therefore feeding into Section 106 agreements and Community Infrastructure Levy contributions. In addition these assessments assist local authorities in planning for social infrastructure provision at a local level.

However, planning for social infrastructure at a borough or district wide level requires more complex analysis and forecasting. Here we explore the trials and tribulations of planning for school places and the challenges facing local authorities to ensure there are sufficient school places available for residents, and that education can be provided for efficiently.

660,000 four-year olds in oversized jumpers started state school in England this September - a logistical achievement of society, transport, alarm clocks and willpower. But most of all, a feat of school place planning.

There are hundreds of school planners up and down the country who have sleepless nights about published admissions numbers, forms of entry and ensuring that every child who needs one has a place in a local school.

They run models, count heads and plead with the Treasury to make sure enough school places are delivered every year.

Evidence-based policy making, understanding and using statistics correctly is the key to good planning – for schools and almost everything else. Socio-economic consultants use models that will predict how many children will live in a new development, how old they will be and how that will change in a community over time. Based on these models, which Local Authorities use too, we can plan for expansion and draw squares in Local Plans and on masterplans, allocating them for schools. Section 106 and Community Infrastructure Levy are applied to fund these projects and the loop should be closed.

However, this doesn’t always works as seamlessly as this. Why the uncertainty and the persistent doomsday headlines about school-place crisis?

Obviously, it is just a bit more complicated than that. There are multiple reasons why it doesn’t quite work – the planning system, development delays, land prices, funding constraints, policy changes. These are all important. All could probably do with a tweak to help the system work better. But the most interesting factor, and hardest to reconcile, is that the statistics really can’t tell you everything you need to know in order to plan seamlessly for schools. They go a long way, but the final mile is a little up to chance.

People change. They move. They stop moving. They have more children.
They have fewer. Sometimes they do these things unexpectedly. London has experienced an unprecedented growth in primary-aged children in the last 15 years. This has been driven, in part, by population growth, but more so by the changing demographics of Londoners. Population in the capital has grown by 17% since 2005; the number of primary-aged children by 28%. The recession slowed outmigration of young families to the Home Counties. London school attainment is now excellent and the city is as vibrant as ever.

There are 124,000 more primary school places in London now than there were in 2005. Crisis was declared across the media and Authorities rushed to expand and build schools wherever they could, which they did successfully, at breakneck speed.

We were just getting into the flow of this growth and we’ve had to slam on the breaks. Primary numbers have, apparently, peaked. Outmigration has started again. Concern has diverted from primary to secondary. Plans for primary provision are being revised. Again.

This is not to say that the use of child yield models should be stopped. They are extremely useful to understand likely occupation characteristics of development to help plan effectively at the local level. But the results they produce and how this translates into demand (particularly when considering timing) will be off sometimes and we will need to revise our expectations whenever new data comes to light. We must work collaboratively across public and private sectors to share the latest data and best techniques.

This seemingly messy and piecemeal way of doing it really is the only way to go about planning infrastructure for cities. There are so many complex forces in action.

We must embrace it as one of the great excitements of planning and of city life. A little chaos and humility keeps us on our toes.

Sasha Gordon, Quod, December 2017.