

Young people in education have lost significant amounts of time in school during the pandemic – and this carries risks of lifetime scars.

Lee Elliot Major, Andrew Eyles and Stephen Machin reveal the scale of learning loss across the UK nations and assess what it means for future life opportunities.



Learning loss since lockdown

One of the most enduring generational impacts of the pandemic concerns the learning lost by children and young people. Missing out on education from which they would otherwise have benefited is likely to have profound effects on life outcomes for what we have called the Covid generation. There are genuine concerns that the pandemic will exacerbate existing inequalities and reduce future levels of social mobility – the capacity of young people to transcend their background.

In our latest research, we appraise how children's exposure to formal learning has evolved over the different periods of

lockdown and school closures during the pandemic. We consider the impacts on pupils in primary and secondary schools – and we compare and contrast the scale and range of losses across the UK nations.

The calculations are made by triangulating data from different sources to produce robust estimates of educational loss. Considering how these are likely to affect human capital formation in later life allows us to estimate the likely increase in intergenerational persistence for young generations growing up in the wake of the pandemic.

Our analysis is based on a number of separate sources of data. We document the different school opening and closure

The extent of schooling disruption during lockdown has been unprecedented in its scale

dates in the four nations during the pandemic. We use data from official attendance statistics published by each nation. Alongside these, we use data from parental responses gathered in successive waves from a nationally representative longitudinal study called Understanding Society.

School days missed

Reviewing the key school dates and school attendance data permits a calculation of the maximum total numbers of classroom days missed by pupils across the different nations. The extent of schooling disruption between March 2020 and April 2021 has

been unprecedented in its scale. It differed across the four nations because education is devolved across the UK with variation in national policies between England, Scotland, Wales and Northern Ireland. These include historic differences in term dates, and decisions about when to re-open schools.

Combining figures from 23 March 2020 to 23 March 2021, we find that the following days were lost due to school closures over the calendar year: 110 days (England); 119 days (Scotland); 124 days (Wales); and 119 days (Northern Ireland). These figures all compare to a full calendar year during normal times of 190 classroom

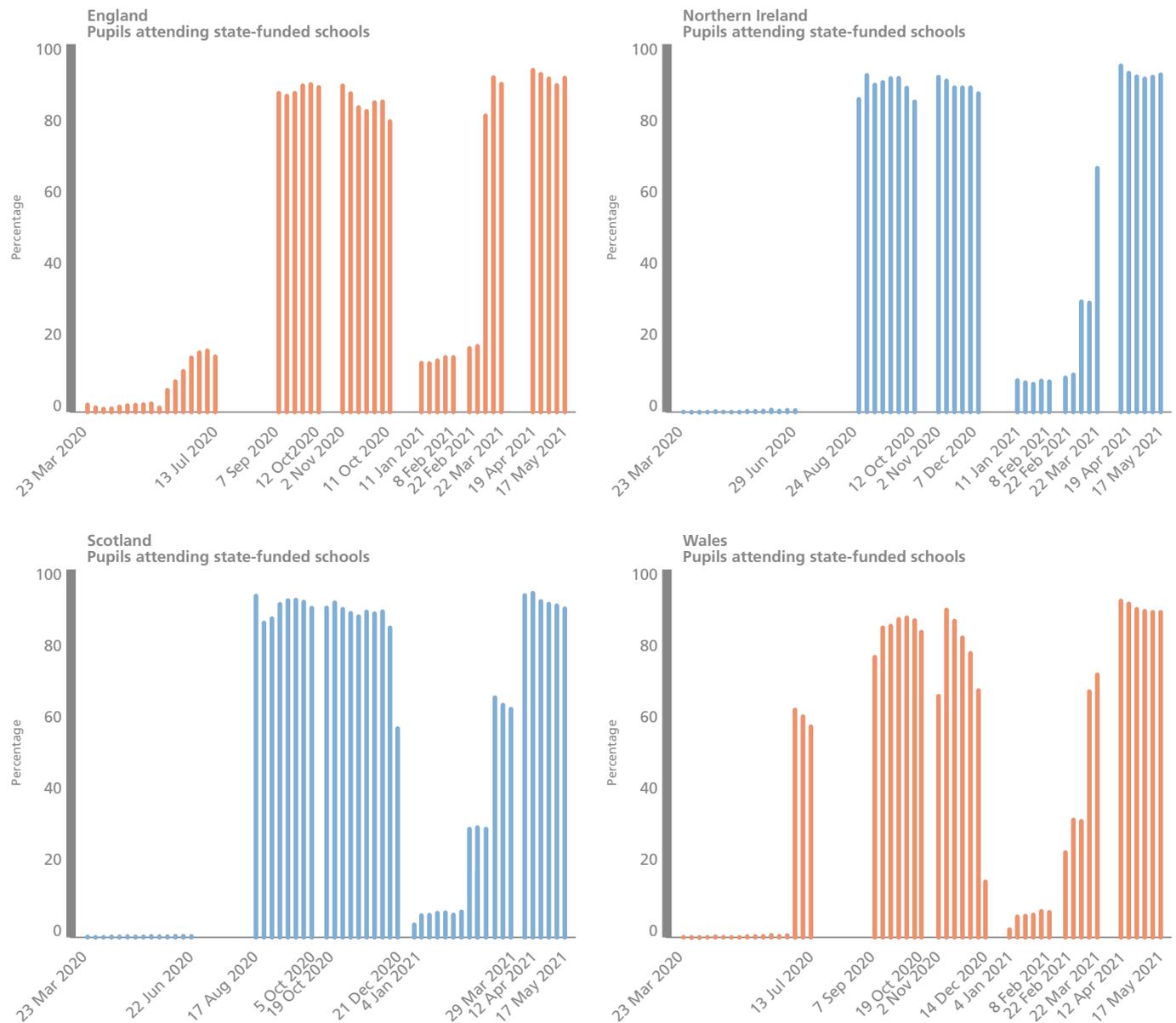
days (with a further five days for teacher development). This equates to more than half of school days being missed.

Figure 1 plots weekly attendance data separately for the four nations in each school week since 23 March 2020, taken from official published attendance figures.

The patterns in school attendance reflect the distinctive school closure and opening dates in the four nations, but also policies concerning attendance of vulnerable pupils and pupils of key workers during school closures.

Attendance was very low in the period stretching from 23 March 2020 until the summer break and in the spring term

Figure 1: School attendance, four nations



of 2021. Attendance rates in England during school closures were around twice the level of attendance rates elsewhere in the UK, driven by the opening of all schools in England, and (to a lesser extent) government policy permitting vulnerable children and children of key workers to attend school. Different approaches were adopted across the four nations; for example, all schools in England remained open, whereas other parts of the UK opted for a hub model in which fewer schools were kept open. Attendance meanwhile was high in the autumn term, when all nations re-opened the school doors.

Rates of classroom and home learning

These data relate only to classroom learning, not learning occurring at home. With varying degrees of effectiveness, schools provided online lessons and expectations of what children should cover at home during school closures. Home learning experiences differed enormously depending on the availability of a quiet place to study, internet connectivity and resources provided by schools.

Differences in home learning can be assessed using microdata from the dedicated Covid waves released as part of Understanding Society, which asked parents a battery of questions about home schooling in the two closure periods. From these responses, we are able to estimate daily learning including online lessons during the pandemic.

Overall, learning capacity due to the closure of schools during the first lockdown in 2020 fell sharply for all four nations. Learning losses were particularly large for Scotland and Wales, where on average pupils missed out on around two-thirds of the lessons they would normally receive. In England and Northern Ireland, the learning loss was lower, but still of sizable magnitude, at 57% and 59% respectively.

The daily estimates of learning loss can be combined with the attendance numbers in Figure 1 to obtain estimates of lost days of schooling in each school term across the four nations. Multiplying the daily learning loss by the length of term in days produces estimates of losses for the summer term of 2019/20, the 2020/21 autumn term and the 2020/21 spring term. As the focus is on days lost since the first lockdown occurred on 23 March 2020, the extra ten days of the 2019/20 spring term are added to the length of the 2019/20 summer term.

This produces the following estimates for overall days lost, presented in Figure 2. We estimate the following overall losses:

61 days in England; 61 days in Northern Ireland; 64 days in Scotland; and 66 days in Wales.

Educational inequality

We find that children and young people from more affluent backgrounds – whether measured by parental income or type of schooling – received more instruction time during the first lockdown.

Figure 2 shows how learning losses differed across the family income distribution for the three periods under study. Due to relatively small sample sizes for Northern Ireland, Scotland and Wales, their data are pooled together so that the data contrast England with the rest of the UK.

Two findings are apparent. First, there were significant divides in learning loss across the year of the pandemic. Pupils from the bottom fifth of incomes experienced higher learning loss than those from the top fifth. In England, for example, during the 2021 school closures, the poorest pupils missed out on a third of their

Figure 2: Learning losses, four nations

Average learning loss

	England	Northern Ireland	Scotland	Wales
Total days	61	61	64	66
of which:				
Summer term 2020	40	36	39	40
Autumn term 2020	8	5	7	8
Spring term 2021	13	21	18	18

Inequality of learning loss

	April 2020		November 2020		January 2021	
	England	Rest of UK	England	Rest of UK	England	Rest of UK
	1	2	3	4	5	6
Bottom 20%	60.9	71.4	13.4	8.3	34.9	47.4
Middle 60%	56.4	62.7	11.6	9.1	27	38.3
Top 20%	47.5	59.7	5.9	6.7	24.4	38.6
Sample size	2,952	651	1,973	402	1,910	386

Notes: Top panel shows average learning days lost during the first year of the pandemic. Panel above shows the percentage loss in learning experienced by pupils from the bottom fifth of incomes, the middle 60% of incomes and the top fifth of incomes.

Recovery programmes will need to be substantial to address significant learning loss

learning (34.9%) while the richest pupils missed out on a quarter of their learning (24.4%).

Second, the poor-rich gap in learning loss varied across nations. These differences are significant: during the 2021 school closures, the poorest pupils in England experienced lower learning loss than the most affluent pupils in Scotland, Wales and Northern Ireland (34.9% compared with 38.6%, respectively).

Several studies have confirmed that learning losses suffered during the pandemic are manifested in stark gaps in actual exam results between children from poorer backgrounds and their more privileged counterparts. Other research shows a robust positive relationship between hours of study and attainment.

Considering the likely consequences of increasing educational inequalities for earnings and employment in the labour market, a likely consequence for this generation will be a significant decline in social mobility levels (Elliot Major et al, 2021).

Policy matters

Finally, we explore the extent to which government policies affected nation-specific gaps in learning loss. We do this by asking what would have happened under counterfactual scenarios where nations had the same policies and/or learning losses. The counterfactuals reveal that both education policy decisions enacted under the pandemic and historical differences in term dates explain differential degrees of learning loss across the home nations.

England, for example, benefitted from higher attendance rates during the pandemic, both during normal term time and during partial school closures by urging vulnerable pupils and children of key workers to attend. Ministers also decided to open the country's schools to all pupils at an earlier date during the 2020/21 spring term. Scotland, on the other hand, benefitted from earlier scheduled school summer holidays during the summer term of 2019/20.

Conclusions

Our research indicates that any recovery programmes rolled out by the respective UK governments will need to be substantial to address significant learning losses suffered by pupils across the four nations. They will also need to be highly targeted to help disadvantaged children and young people who, on average, missed out on more education than their more privileged peers.

We have previously advocated extra targeted one-to-one or small group tutoring as one credible policy response, which has been subsequently taken up by the government in England.

Another suggestion is to extend school time or at least ensure minimum school days across all schools. We find that a narrow majority – 53% – of our survey participants believe that extending school time would be an appropriate policy response to the learning losses. But we did not detail how this extended school day would be used. The level of agreement is largely invariant to the hypothetical learning losses that we present to participants.

It remains unclear what level of Covid-induced absences will continue with schools now back for the autumn term of 2021/22. Governments across the four nations should be aware that policy interventions – encouraging key pupils to attend schools during closures, reorganising school term dates or opening schools early – can all have a significant impact in reducing learning losses. These are important considerations given the lifetime scarring likely to occur for the Covid generation.

This article summarises 'Learning Loss since Lockdown: Variation across the Home Nations' by Lee Elliot Major, Andrew Eyles and Stephen Machin, CEP Covid-19 Analysis No. 23 (<https://cep.lse.ac.uk/pubs/download/cep-covid-19-023.pdf>).

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Further reading

Lee Elliot Major, Andrew Eyles and Stephen Machin (2021) 'Unequal Learning and Labour Market Losses in the Crisis: Consequences for Social Mobility', CEP Discussion Paper No. 1748 (<https://cep.lse.ac.uk/pubs/download/dp1748.pdf>).

