



Study 2 / 2021

The gap of in-person teaching during the Covid-19 pandemic: estimation of invisible economic losses²

APRIL 2021

OLE JANN, DANIEL MÜNICH, LUCIE ZAPLETALOVÁ

Summary

- Studies of the impact of school closures and school absences as well as impact studies already carried out abroad into the Covid-19 pandemic period all show, that the gap in in-person teaching caused by the pandemic will have a substantial negative impact on pupils' educational outcomes and will increase educational inequalities. The loss of learning will very likely lower the future earnings of current pupils and students for decades of their productive life.
- Based on estimates of the impacts on education and assumptions about the likely values of key parameters, we have estimated the impact of one week of complete school closure to **50 billion CZK** on the side of the pupils and students and a further **16 billion CZK** in lost future income to public budgets from employees' insurance contributions, in total **66 billion CZK** lost per week of school closure.
- In the optimistic case where distance learning can replace 50% of in-person teaching on average, the loss still amounts to **33 billion CZK** per week. For comparison, the costs of two tests for all pupils and students every week would be just 1.25% of this loss in the case of antigen tests, or 2.5% of this loss in the case of mass PCR tests. The loss represented by a closure lasting half a school year amounts to **660 billion**

² This study represents the authors' view, and not the official position of the Czech Academy of Sciences' Economics institute nor of the Charles University Centre for Economic Research and Graduate Education (CERGE). The research assistants were Tran Thanh Trang and Theodor Kouro. We thank, Štěpán Jurajda, Filip Pertold and Jan Švejnar for valuable comments and advice. The research was supported by the Technology Agency of the Czech Republic within the grant GAMA2 TP01010040 "How to mobilize society's resources against the pandemic". This study was supported by the Czech Academy of Sciences within the AV21 Strategy program "Society in Motion and public policies". All possible inaccuracies and errors are the responsibility of the authors.

CZK, which is more, for example, than the annual state budget expenditures on pensions.

- Our assumptions of the values of our input parameters are based on the international academic consensus, but still come with some uncertainty. Some changes in the assumptions would, however, balance each other out, such that their combined effect on the overall result would be rather small. An interactive on-line calculator of the costs of in-person teaching closures can be found on the IDEA web site under *Výstupy -> Aplikace*.
- Besides the direct financial losses of future earnings, there are also the indirect losses of earnings on the part of the parents who supervise primary age pupils at home (around **1.2 billion CZK** per week) and the additional costs to future public budgets connected to additional social expenditures, which we do not estimate in this study, just as we refrain from estimating other social and psychological costs associated with school closures.
- The losses caused by closures of in-person teaching are not as easily visible as the losses in the productive sectors of the economy. This is due to the fact that the educational losses will only manifest themselves years later in the form of reduced productivity, earnings and public budgets. However, these losses must be considered when proposing measures to control the epidemic both in schools and elsewhere. They must be compared to the additional expenditures on more intensive contact tracing and financial motivation for compliance with such tracing that could keep the virus spreading slowly enough in schools to enable in-person teaching. They must also be kept in mind when targeting and setting the level of restrictive measures in other sectors of the economy. The authors of this study are persuaded that when taking its decisions, the government has substantially underestimated the losses caused by the closures of in-person education during the Covid-19 pandemic in the Czech Republic.