

How well do prematurely-born children do in school?

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How does preterm birth affect children's school grades? Using Swedish registers for children born 1982–1994, a new study, published in *Population Studies*, investigates how prematurely born pupils perform in school at age 16.

"We have examined how school grades are affected by degree of [prematurity](#)," says Anna Baranowska-Rataj, Associate Professor at the Department of Sociology, Umeå University, "Our results show that the negative effects of [preterm birth](#) are observed mostly among children born extremely preterm, that is, after less than 28 weeks of gestation. Children born moderately preterm suffer no ill effects." Baranowska-Rataj conducted the study together with her colleagues Kieron Barclay (Max Planck Institute for Demographic Research), Joan Costa-Font (London School of Economics and Political Science), Mikko Myrskylä (Max Planck Institute for Demographic Research) and Berkay Özcan (London School of Economics and Political Science).

Better socioeconomic resources did not lead to better grades

The researchers also wanted to learn more about what role the environment played when it came to preterm children's school performance. They studied characteristics of the children's school districts and their families' socioeconomic resources.

"In this study we examined two types of environments that may potentially support preterm-born children," says Anna Baranowska-Rataj. "The first type is private resources of families in which children are raised. The second, and so far less studied type of environment, are school districts. Regarding our results, we do not find any evidence for the moderating effect of parental socioeconomic resources. Apparently in Sweden, richer or better educated families are not necessarily better

equipped to support children born preterm. But we do find that extremely preterm children in the top decile of school districts have as good grades as full-term children in an average school district. This raises hopes that schools can play a compensatory role and might help children with some types of early-life health disadvantage."

Sibling comparisons

To avoid making misleading conclusions, the researchers compared preterm children with their siblings.

"Families differ in terms of genetic background, economic resources, housing conditions, or lifestyle. All these factors may matter for things we focus on in this study: a probability of being born preterm and a child's school grades," says Baranowska-Rataj. "Therefore, comparing children from different families may lead to misleading conclusions. But when we look at two children from the same family, one born preterm and another born at full term, we can be more confident that any differences in their school [grades](#) are related to gestational age instead of resulting from substantial differences in family-specific factors that are not observed for a researcher."

School environment may reduce educational disadvantage

In future research, Baranowska-Rataj thinks it would be interesting to find out what specific aspects of [school](#) principals' decisions can be helpful for children who are in a more difficult health-related situation.

"This study contributes to a broader debate about how local authorities and schools can support children who have health-related problems. Previous research paid a lot of attention to families' private resources

that can be mobilized in order to provide support for children who might need extra help. But when families are regarded as the chief source of support, this only strengthens educational inequalities. Our findings imply that the schooling environment may be a relevant factor for reducing the educational disadvantage of [children](#) who suffer from health problems."

More information: How do preterm birth eff Anna Baranowska-Rataj et al, Preterm birth and educational disadvantage: Heterogeneous effects, *Population Studies* (2022). [DOI: 10.1080/00324728.2022.2080247](https://doi.org/10.1080/00324728.2022.2080247)

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