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<p>Projekttitel: Nyanlända i skolan: Effekter på humankapitalutveckling, skolor och segregation</p> <p>Projektstart: 2022-01-01 Projektslut: 2024-12-31</p> <p>Sökt beredningsgrupp: SSL 2021, SR 2021</p> <p>Klassificeringskod: 50201. Nationalekonomi</p> <p>Nyckelord: Refugee crisis, human capital accumulation, integration of refugees, host-country effects, education policy</p>												
<p>Sökta medel</p> <table border="1"> <thead> <tr> <th>År:</th> <th>2022</th> <th>2023</th> <th>2024</th> <th>Totalt sökt belopp</th> </tr> </thead> <tbody> <tr> <td>Belopp:</td> <td>1 661 500</td> <td>1 714 400</td> <td>1 622 300</td> <td>4 998 200</td> </tr> </tbody> </table>			År:	2022	2023	2024	Totalt sökt belopp	Belopp:	1 661 500	1 714 400	1 622 300	4 998 200
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<p>Medverkande</p> <p>Medverkande forskare: Helena Holmlund Dr-examen: 2006-06-09</p> <p>Födelsedatum: 19760702 Akademisk titel: Docent</p> <p>Kön: Kvinna Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)</p> <p>Land: Sverige</p> <p>Medverkande forskare: Hanna Mühlrad Dr-examen: 2018-01-25</p> <p>Födelsedatum: 19870328 Akademisk titel: Doktor</p> <p>Kön: Kvinna Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)</p> <p>Land: Sverige</p>												

Projekttitel (svenska)

Nyanlända i skolan: Effekter på humankapitalutveckling, skolor och segregation

Projekttitel (engelska)

Receiving Refugees in Schools: Effects on Human Capital Accumulation, Schools and Segregation

Sammanfattning (svenska)

Mottagandet av nyanlända barn under flyktingkrisen 2015 innebar påfrestningar för skolor och mottagande samhällen. Inflödet av elever påverkade behovet av resurser och lärarkapacitet och förändrade förutsättningar för lärande i många skolor. För att utforma framtidens skol- och integrationspolitik är det viktigt att förstå hur integration av nyanlända, och den politik som förs för att underlätta integration, påverkar lärande och kunskapsutveckling för både nya och befintliga elever, hur skolans resurser och lärare påverkas och i förlängningen hur mottagande påverkar skolsegregation och skolmarknad. Detta projekt har därför två delsyften och avser att besvara följande forskningsfrågor.

Effekter på skolan av stort flyktingmottagande

Delprojekt 1 utnyttjar de stora skillnaderna mellan kommuner i flyktingmottagande under krisen 2015 för att analysera hur mottagandet av nyanlända elever påverkar 1) befintliga och nyanlända elever, 2) skolresurser, 3) lärare och 4) den lokala skolmarknaden. Vi undersöker effekter på skolresultat, betygssättning, elevers, rektorers och lärares mobilitet, lärarresurser, tillgång till särskilt stöd och modersmålsundervisning samt effekter på skolsegregation och skoletableringar.

Effekter av politik som syftar till att förbättra mottagandet av och utbildningen för nyanlända.

Delprojekt 2 utvärderar Skolverkets riktade insatser för nyanlända elever som inleddes 2016 för att förbättra kvaliteten i mottagandet av och utbildningen för nyanlända elever. Vi utnyttjar den randomiserade uttullningen av insatserna för att jämföra utvecklingen av skolresultat, resurser, mobilitet och segregation mellan insats- och kontrollkommuner. Information om stödinsatsernas lokala innehåll och om huvudmännens arbete med nyanlända används för att närmare förstå mekanismer och samband.

Delprojekt 3 analyserar om språkutveckling och lärande hos elever med utrikes bakgrund gynnas av att börja skolan tidigare.

Sammanfattning (engelska)

The rapid influx of refugee children in Swedish schools during the 2015 refugee crisis posed a great challenge to receiving communities and schools by putting pressure on school resources, teaching capacity and classrooms. Understanding the effects of accommodating refugee children on the human capital accumulation of incumbent and refugee pupils, teaching resources and school segregation in host communities, and providing evidence on effectiveness of policy measures are central to further developing successful school, migration and integration policies. The purpose of this project is thus twofold, and focuses on the following research questions:

The causal effects of receiving large numbers of refugee students.

Municipal and school variation in exposure to the influx of new pupils in 2015 is exploited to analyze the causal effects of refugee accommodation in schools on 1) incumbent and refugee students by gender and socioeconomic background, 2) school resources 3) teachers, and 4) local school markets. We study school results, school and teaching resources, teacher and student mobility, equity and segregation.

The effectiveness of policy measures targeted towards immigrant students.

a) An evaluation of the effects of the targeted support program to municipalities launched by the National Agency for Education (NAE) in 2016, which aimed to facilitate refugee reception of and improve the quality of education for recently arrived children and Swedish learners. The evaluation focuses on the same set of outcomes 1)-4) mentioned above and exploits the randomized toll out of the program.

b) *The effects of early school start on language skills and school performance of immigrant children.* The research is motivated by recent policy initiatives which favor mandatory pre-school from age 5 to improve language skills of immigrant children.

Antal år för projektet

3

Beräknad projekttid

2022-01-01 - 2024-12-31

Ämnesklassificering

Nyckelord 1

Refugee crisis

Nyckelord 2

human capital accumulation

Nyckelord 3

integration of refugees

Nyckelord 4

host-country effects

Nyckelord 5

education policy

Fortes huvud- och delområden

Välfärd (VÄL) > Befolkning och migration

Alternativt delområde

Välfärd (VÄL) > Uppväxt och livschanser

Fortes samordningsområden

Barn och ungdomar

SCB-koder

50201. Nationalekonomi

Globala hållbarhetsmål

04. God utbildning för alla

10. Minskad ojämlikhet

16. Fredliga och inkluderande samhällen

Projektbeskrivning

Syfte, frågeställningar, teoriansknytning, bakgrund och projektets originalitet

Receiving Refugees in Schools: Effects on Human Capital Accumulation, Schools and Segregation

Purpose and specific research questions

The effects of receiving refugees in schools and of the 2015 refugee crisis on students, schools, and communities, are not well understood. The crisis exposed incumbent students of native and migrant background to large numbers of newly arrived peers with limited knowledge of the Swedish language. Receiving schools were often already socioeconomically disadvantaged (Holmlund et al., 2019), and had limited experience in integrating migrant children. Initially, available school resources had to be shared between existing students and newcomers. There may also be dynamic effects, if teachers, principals and families move to different schools in response to the influx of refugee children, if school districts respond, and if new schools are established to meet new demand.

The crisis also led to national policy responses aiming to support communities and schools, though professional development and coaching of school leaders and teachers (Bunar, 2017; Crul et al., 2019). It is of interest to study if these programs might have influenced the consequences of the refugee crisis.

Understanding the effects of accommodating refugee children, as well as providing evidence on effective policy measures, are central to developing successful school, migration, and integration policies. Studying how the Swedish school system responded to the 2015 crisis is also informative of how well school heads (municipalities and independent schools), principals and teachers, adapt to and solve new challenging situations. The purpose of this project is thus twofold, and focuses on the following research questions:

The causal effects of receiving large numbers of refugee students.

- Municipal and school variation in exposure to the influx of new students in 2015 is exploited to analyze the causal effects of refugee accommodation in schools on 1) refugee and incumbent students by gender, and socioeconomic and migrant background, 2) school resources 3) teachers, and 4) local school markets. We study school results, school and teaching resources, teacher, principal and student mobility, equity, and segregation during the years after the crisis.

The effectiveness of policy measures targeted towards immigrant students.

- *The effects of the targeted support program to municipalities launched by the National Agency for Education (NAE) in 2016, which aimed to facilitate refugee reception and improve the quality of education for recently arrived and multilingual students (National Agency for Education, 2020). The evaluation focuses on the same set of outcomes 1)-4) mentioned above.*
- *The effects of early school start on language skills and school performance of immigrant children.* Motivated by recent policy initiatives which favor mandatory pre-school from age 5 to improve language skills of immigrant children (SOU 2020:67), it is vital to understand the adequacy of such policies.

Only five years after the refugee crisis, schools and communities were faced with the challenges of the COVID-19 pandemic. The burden of the pandemic has likely fallen harder on disadvantaged areas and groups (Sjögren et al., 2021). It is thus necessary to take the COVID-19 pandemic into account when analyzing effects of the refugee crisis in the medium and long run. The time horizon of this project is, however, too short to capture the full and joint impact of these crises. Nevertheless, there is value to shedding light on how the initial resilience of schools to the COVID-19 crisis relates to earlier exposure to the refugee crisis. To the extent that administrative data covering the pandemic (and post-pandemic) years become available during the project period, we will make an initial assessment of how the earlier reception of refugees and participation in the targeted support programs have impacted on the consequences for students and schools of the COVID-19 pandemic.

Background and originality

Between 2012 and 2016 the number of newly arrived immigrant children in Swedish compulsory schools doubled from 40,000 to 80,000, resulting in 8 percent newly arrived students in the average school (Mörklund, 2020). The rapid increase in the number of refugee children, which culminated during the 2015 refugee crisis, posed a great challenge to receiving communities and schools.

The project addresses one of the largest societal challenges of recent decades, namely the refugee crisis of 2015. The unprecedented influx of migrants is still a cause of debate and conflict in Swedish society, and in societies that were similarly affected. To develop policies and strategies to constructively go forward, we need answers to the research questions we propose. Needless to say, the likely unequal impact of the present COVID-19 crisis on students and schools, further aggravates the need to address issues of inequity and segregation in schools.

The Swedish context, characterized by a very large and rapid influx of refugee children, combined with rich Swedish administrative data, which for recent years also includes information on asylum seeking students' school performance, and unique survey data provides several unique advantages. First, it allows us to address the research questions related to refugee integration and schooling in general. Second it allows for a causal analysis of effects of policy responses. In addition, unlike most previous work, the richness of our data enables us to study the educational outcomes of *both* refugee students and incumbent students of native and migrant origin. Furthermore, we can analyze effects on teachers, principals, schools, and school markets in receiving communities. Our project will thus advance the scholarly knowledge about these issues more generally, as well as contribute to the evidence base available to Swedish policymakers specifically.

The magnitude of the Swedish refugee crises, and the variation in its impact across municipalities offers a natural experiment and a unique opportunity to study effects of reception of refugee students of a scale much more important than that addressed in e.g. Figlio and Ozek (2019) and Brandén et al. (2018). The causal effects of the 2015 crisis on schools and communities are yet largely unexplored. Among the European countries that experienced the largest inflows of immigrant students during the crisis, Sweden is one of the few where universal data on all students (including detailed information on family background) are available.

Beyond providing evidence on the effectiveness of the targeted NAE-support program, the proposed project generates valuable knowledge about a type school improvement programs which are based on collaborative dialogues between schools and implementing agents and more specifically on the effectiveness of coaching and professional development programs in improving outcomes for refugee and multilingual students (see Hopkins et al., 2014, for a review of school development approaches). Moreover, the proposed evaluation is the first to exploit the sequential randomized roll out, which is unique in a Swedish education context, where national programs are rarely implemented in a randomized fashion.

Studying the effects of previous exposure to the refugee crisis and participation in support programs on the resilience to the COVID-19 pandemic offers a novel take on policy spillovers. This will add further understanding for the long-run consequences of school development programs.

Literature review and analysis of the theoretical starting points

A classical educational production function approach (e.g. Hanushek, 2008), assumes that school resources, teacher quality, and the family background and characteristics of the students jointly produce student achievement. This approach implies several reasons to expect the scale of refugee migration to matter for school performance. First, large numbers of newly arrived peers with limited knowledge of the teaching language implies that resources have to be shared between existing students and newcomers in the schools. As refugee children are integrated in existing classrooms, teaching will be adapted to the new students (Gould et al. 2009; Brandén et al. 2018). Moreover, the student composition of classrooms changes, which may have consequences for student outcomes through peer effects (Akerlof and Kranton 2002, Hoxby 2000; Lazear 2001). Furthermore, the 2015 refugee crisis involved large numbers of refugee children, mostly boys, arriving without other family members. Thus, not only did the fraction of recent immigrants increase, the fraction of boys increased in many classrooms as well. Hoxby (2000) shows that gender composition has particular implications for the learning environment and for the peer effects in the classroom.

Second, this type of migration shock might also have dynamic effects, if some principals, teachers and families respond by moving to different schools, and if new schools are established to meet this demand. Hence there are implications for school segregation. Hanushek et al (2004) and Karbownik (2020) show that teachers respond to the student composition in schools, and that teachers leave schools when the share of minority students increases. The tipping-point literature indicates that natives are sensitive to the share of immigrants in the community, and after the immigrant share reaches a certain threshold, start leaving the neighborhood (so called "white flight") (Card et al. 2008; Böhlmark and Willén 2020). Similarly, Gerdes (2013) uses Danish data to show that inflows of immigrants in the neighborhood increases the probability that native parents enroll their children in privately operated "free" schools. Holmlund et al. (2014) also show that high SES-students are more likely to opt for independent, privately operated, schools if the local public school has a more disadvantaged student body.

Third, the policy response to the refugee crisis, in terms of general and targeted support programs based on collaborative dialogues between schools and the NAE and focusing on professional development of school leaders and teachers, might have impacts on overall school quality (Cook et al., 2015; Kraft et al., 2018; Cilliers et al., 2019 and Hall et al., 2020). Policy measures to improve the performance of immigrant children are of particular interest for the present study, see e.g. OECD, 2015, Bunar, 2017, and Crul et al 2019.

This policy response might have impacted on the adaptive capacity of schools when facing the COVID-19 pandemic and thus also the resilience of student performance. It is likely that immigrant students have been more severely affected. There is a rapidly growing literature on the effects of the COVID-19 pandemic on school performance. Sjögren et al. (2021) estimate that increased school absences of Swedish students and teachers during the spring of 2020 alone implied learning losses of on average around 1 percent of a standard deviation. Engzell et al. (2021) show large detrimental effects on learning of school closures and distance learning in the Netherlands and that weak students suffer the most.

The third part of the project addresses whether extended schooling benefits immigrant children. Many studies show that pre-school can be a successful policy to counteract some of the inequalities in the home environment (see e.g. Dietrichson et al., 2018) and that preschool attendance improves migrant children's language skills (Drange and Havnes, 2019). Based on this research, it is relevant to study if immigrant children benefit from earlier school start. Being older at school start typically has positive effects on student outcomes (Fredriksson and Öckert, 2005). It is however not obvious that being older favors immigrant students to the same extent as the average student. While there is an advantage for students to have their performance assessed at a more mature age, early exposure to the majority language may help the language development of children with another first language (Bleakley & Chin 2008; Drange & Telle 2015). Early skill formation in learning environments outside the home might be particularly relevant, since returns to skills are larger when formed at an earlier age (Cunha & Heckman 2007).

The project's added value

The project contributes to the large literatures in economics and other social sciences on effects of immigration on host communities (e.g. Borjas, 2014; Dustmann et al. 2016), schools (Gould et al. 2009; Jensen and Wurtz Rasmussen 2011; Geay et al. 2013; Brandén et al. 2018; Alba et al. 2011) and school segregation (Szulkin and Jonsson, 2007; Böhlmark and Willén 2017; Holmlund et al. 2014; Holmlund et al. 2019), the importance of student composition of schools and peer effects in general (Coleman, 1988, Akerlof and Kranton 2002, Hoxby 2000; Lazear 2001); and the effectiveness of school improvement policies (e.g. Cullen et al. 2013; Kraft et al. 2018 and Hall et al. 2020). We specifically add to the literature focusing on refugees migration (Åslund et al. 2011; Brell et al. 2020; Bossavie 2020; Figlio and Ozek, 2019).

Previous research on the effects of immigration on native students' school results is not conclusive. Contexts likely matter. Gould et al. (2009) study how mass migration to Israel in the 1990s affected the academic outcomes of natives and find negative effects. Geay et al. (2013) study the influx of non-native English speakers in England after the Eastern European enlargement in 2005 and find that a larger share of non-native peers in schools did not affect native English speaking students' school performance. Figlio and Ozek (2019) study the influx of poor non-English speaking Haitian migrants into Florida, following the 2010 earthquake, and find zero effects on the educational outcomes of incumbent students. Swedish evidence points to mixed conclusions: Brandén et al. (2018), using time and school variation in exposure to migrants, find that both native and immigrant students' grades are unaffected by the proportion of immigrant school peers, but the share of immigrants has a negative effect on the attainment of high school eligibility among weaker students.

This study will add to the present knowledge, by providing evidence from a recent example of large-scale refugee migration, which created significant quasi-experimental variation in exposure to newly arrived students with similar refugee experience. Of particular added value is that many receiving communities were situated outside the metropolitan areas. Our ability to study refugee students and incumbent students of native and migrant background is an additional strength.

We further address how teachers, principals, parents and school markets react to immigrant inflows by explicitly studying effects on segregation and school markets. The 2015 refugee crisis is of particular interest, since the increase in refugee exposure was particularly important in rural areas where school markets are less developed.

An important value of the project is to address the effectiveness of school improvement programs based on professional development and coaching of teachers. The meta-analysis by Kraft et al (2018) points to the potential of teacher coaching programs, but also shows that their effectiveness in improving the achievement of refugee and migrant students is largely unexplored. Hall et al. (2020) show positive effects of teacher coaching programs in a small sample of disadvantaged urban schools in Sweden. The proposed project will add knowledge about the effect of these types of programs relating to refugees and also in a context of non-metropolitan areas. Again, the knowledge pertaining to rural areas is scarce.

Although the project period only allows us to analyze effects of the pandemic on school results for a limited follow up period, an early assessment of how the pandemic has affected school results in areas with large migrant exposure, and schools participating in targeted support programs, is of high research and policy interest.

In view of a recent policy proposal to lower the mandatory school starting age in Sweden (SOU 2020:67), the value of a study of the potential consequences of this, with a focus on migrant children is of significant policy value. The proposed study is also an important addition to the literature on school starting age, which has previously not focused on migrant children.

Previous and preliminary results

In Holmlund et al. (2019), Holmlund and Sjögren (together with B. Öckert) study school achievement by immigration status and the role of immigration for the development of school segregation and equity. We show that age at immigration is a strong predictor of immigrant children's school achievement. While the overall performance differences across schools as well as across families are shown to have increased over time, much of this development is related to increases in the fraction of migrant students and to a changing composition of migrant students: An increasing share of immigrant students arrive at an advanced age, and from more dispersed educational backgrounds. The large influx of migrants, culminating during the 2015 refugee crisis, is in fact shown to be associated with a trend towards *less* school segregation in terms of migrant background. Receiving schools on average had a more disadvantaged incumbent student population and were often situated in rural areas, and a larger fraction of schools has some share of migrant children after the crisis, compared to before when many schools did not have any migrant children at all. It is of high relevance to further study in detail how segregation processes were affected.

Holmlund et al. (2019) also show that school resources were adversely affected and that teacher-student ratios were initially depressed by the refugee crisis. Interestingly, ratios were very rapidly restored to pre-crisis levels in affected schools, see Figure 1.

A preliminary analysis suggests that effects on incumbent students' achievement were limited. A more careful analysis, as proposed, accounting for possible non-random placement of migrants in schools and possibly selective school mobility on the part of incumbent students is necessary for conclusions to be drawn.

In the second sub-project we propose to evaluate the targeted support to municipalities receiving large refugee inflows in their schools. Preliminary analysis of the randomized roll-out reassuringly shows that protocols were followed and that there is balance in terms observable characteristics of treated and control municipalities.

In 2018, members of our team conducted (Holmlund and Sjögren) a municipal survey of local reception and integration practices in schools. A description of the survey data is presented in (Mörtlund, 2020). There was significant variation in practices across municipalities. This points to the possibility of identifying successful practices and providing input into future policy making.

Holmlund, Rainer and Reich (2021) find that cultural background impacts gender differences in student achievement among second generation immigrants in Sweden. This finding highlights the importance of understanding how family background and aspects of the home environment interact with school policies and motivates us to study whether gender differences in student achievement is influenced by migration.

Sjögren et al. (2021) (coauthored by Holmlund, Mühlrad and others) analyses possible consequences of the COVID-19 pandemic for the human capital development and educational outcomes of children and youth. The overall conclusion is that children from disadvantaged backgrounds are likely to be more severely affected. This is a motivation for analyzing the resilience of migrant and native students, and schools to the pandemic.

Diarienummer för eventuella tidigare Forte-projekt

Studiedesign, metoder för datainsamling och analys

Data sources

The proposed research uses quantitative methods and builds on rich administrative data provided by Statistics Sweden, available through the Institute for Evaluation of Labour Market and Education Policy (IFAU).

The data include Swedish administrative registers covering detailed demographic, socioeconomic and educational information for the universe of Swedish children and their families, including family links. Each Swedish resident receives a unique registration number at birth, or at residency, that allows for linking registers. Children are matched to school registers, which include information on the presence of asylum-seeking children, and contain individual information on enrolment in each school grade, national test results, subject grades as well as records of special and mother tongue education. This allows us to link children to schools, to measure student mobility and school segregation, and to study individual schooling outcomes. In addition, the teacher register includes information on teacher qualifications and allows us to construct measures of teacher and principal mobility, and measures of teaching resources at the school/cycle level. The administrative registers are part of IFAU's data resource (Skolans teknologi och resurser).

The administrative data will be merged with additional data that have been collected specifically for this project.

To study the targeted support program, we rely on NAE's documentation of its implementation, including bilateral agreements between NAE and school heads specifying the components of local interventions. On our team's initiative, the NAE has also saved records obtained from the Swedish Migration Agency on the exact number of asylum seekers present in each municipality at a given point in time, including information on country of origin, age and sex. This information was collected regularly during the rollout of the targeted support program. This allows us to assess the mobility of asylum-seeking families and children across municipalities and compute measures of local presence of refugee children.

Finally, we plan to use a municipality survey conducted by the IFAU team in 2018, containing detailed information on municipal practices in relation to the reception and accommodation of newly arrived children in schools. This information will be crucial for the interpretation of results and analysis of underlying mechanisms.

Study design and analysis

The project will use empirical methods that aim to study causal effects. In Sweden, the initial placement of asylum seekers is within centers established by the Swedish Migration Agency, or through asylum seekers' own arrangements (typically with family or friends, the so-called EBO legislation). Inflows of refugees thus correlate with social and demographic characteristics of a municipality or a residential neighborhood, which complicates causal interpretations of correlations between migration patterns and e.g. student outcomes at the local level. Furthermore, targeted support to schools is needs-based, which makes it difficult to evaluate its impact since such schools typically exhibit low performance also when receiving support. Our methodological approaches will address these empirical challenges. Below, we outline the methodological details in each of the three sub-projects and discuss how results should be interpreted.

1. Causal effects of exposure to refugees in school.

With the high numbers of asylum seekers during the migration crisis in 2015, some municipalities and specific schools that previously had accommodated very few asylum-seeking students were faced with rapidly increasing numbers, as refugee centers opened in temporary facilities (SOU 2017:12). Refugees constituted more than 20 percent of pupils in some municipalities, but only 1-2 percent in others (see Figure 2). The overall growth in the share of asylum-seeking students therefore varied greatly across schools, both across and within municipalities. Within schools, the age profile of incoming refugee students also generated plausibly random variation across cohorts, where some cohorts were more affected than others. We exploit this variation in migration inflows by studying changes over time (i.e. over cohorts) at the school level, comparing schools that exhibited large changes in the share of asylum-seekers, to the similar schools that faced no or small inflows of asylum-seeking students. This method thus addresses possible endogeneities in refugee placement across schools, by using school-level variation across birth cohorts in exposure to refugee children. Even though refugee placement is correlated with a broad range of demographic characteristics of a school, we circumvent the endogenous placement by identifying the effect through a comparison of differentially affected cohorts within schools, which implies that we hold constant all observed and unobserved school-specific characteristics that are constant over time. Under the assumption that schools that received large and small inflows of refugees would have developed in the same way (i.e. followed parallel trends) in the absence of the migration crisis, we will be able to estimate a causal parameter. This method was first developed by Hoxby (2000) and has been used in Brandén et al. (2018) and Figlio and Ozek (2019) as well as many other studies that estimate effects of schools' student composition on student outcomes.^[1] In comparison to Brandén et al. (2018), we will rely on variation generated from an unexpected shock, which presumably gave rise to much larger differences in refugee exposure across cohorts within the same schools.

To the extent that there are spillover effects across cohorts within schools, for instance as a result of reallocation of resources across cohorts within schools, this approach might underestimate effects of refugee exposure on student outcomes. We will address this concern by introducing separate regressors for exposure at the school level and exposure at the school-cohort level, where the former captures school-level peer effects and school resource effects, and the latter the additional effect of peer interactions in the classroom. We only observe teacher resources at the school level, which moreover implies that in analyses of effects on e.g. student-teacher ratios and teacher turnover, we will exploit variation in refugee inflows over calendar time at the school, rather than cohort-specific exposure due to the age profiles of refugee children.

Despite the fact that the migration crisis was unexpected and that refugees were distributed across different kinds of municipalities across the country, it is possible that the placement of refugee children across cohorts within a school is related to some underlying trends at the school level. If, for example, a municipality decides to place refugees in schools that are less popular and therefore have declining student numbers, our estimates may be biased. We can partly address this question empirically by investigating whether the socio-economic background of incumbent students is the same across different cohorts within schools. In addition, we will use shift-share techniques, which means that we will use predicted changes in refugee exposure for identification, where the prediction is based on the school's pre-crisis share of the municipality's refugee students (Bartik 1991). Formally, we predict the school's refugee inflow by multiplying the school's pre-crisis share of the municipality's refugees with the overall change in number of refugee students at the municipality level. Using this strategy we will take into account endogenous placement during the migration crisis, since we only exploit variation based on historical patterns of assigning refugees to schools. However, this estimation strategy is only viable in municipalities with more than one school.

Using this method, we analyze the effects of exposure to refugee inflows on i) school resources, i.e. teacher qualifications, teacher and principal turnover, access to special education, and home language teaching; ii) incumbent Swedish and foreign background students' school results, mobility to other schools, and further educational choices; and iii) effects on school segregation in the local school market and the establishment and closure of independent and public schools. We examine effects by gender and family background, including migration background of incumbent students, in order to address potential heterogeneity in the response to migrant inflows.

The research on the effects of migrant inflows to schools will be informative of the overall effect of the migration crisis and exposure to asylum-seekers at the school. Effects on incumbent students' scholastic achievement could for example constitute the combined effect of exposure to newly arrived low-achieving peers *and* lower resources if schools are unable to hire qualified teachers in response to larger student numbers. Although we will not be able to pin down the exact mechanisms behind the effects on student outcomes, we will be able to paint a broad picture of the overall effects of the refugee crisis on Swedish schools. Since we will explicitly address the effects on school resources, teacher and principal turnover, and special and mother tongue education, we will nevertheless partly address the potential mechanisms through which school results may be affected.

2. Evaluation of the targeted NAE support program

The NAE support program targeted municipalities that received large numbers of refugee children, and which had limited previous experience from accommodating refugees in schools. Because of the intense nature of the intervention, the NAE did not have capacity to support all municipalities at the same time and had to restrict the roll-out of the program to at most 20 municipalities per semester. To select municipalities for the program, the NAE collaborated with the IFAU to develop a selection rule that included priority for municipalities in high need of support, in combination with a random assignment into intervention and comparison groups. The NAE constructed a needs-index based on the size of the refugee inflow and previous experience with refugee children. To guarantee that municipalities in most need were offered the intervention, each term the five municipalities that scored highest on the needs index were selected into the program. The remaining 15 municipalities were selected through a pairwise randomization among the 30 consecutive municipalities ranking highest need. As such, each term, the design generated 15 treated and 15 control municipalities. Importantly, the control municipalities had to wait one year before they could be needs-listed and potentially offered the support program. This was to ensure that the control group did not get access to support shortly after the treated municipalities, which would have invalidated an evaluation.

The randomized roll-out of the NAE support program is unique in Sweden, that is, it is one of very few government education initiatives that have been rolled-out with a randomized design in order to allow for evaluation. The selection mechanism shows that it is possible to combine a needs-based approach (guarantee for those in most need) with a selection that allows for evaluation.

The rule for selection into treated and control municipalities suggests that they should be comparable. Table 1 confirms that this is the case: the selection index is balanced across treated and control municipalities. Our evaluation will exploit the randomized roll out of the program 2016–2019. We will estimate the effects of the program by comparing means and distributions of teacher, student, and school level outcomes between 50 treated municipalities and 50 control municipalities; more specifically we will estimate the average treatment effect (ATE). This project will focus not only on the incumbent students, but when possible also on outcomes of children who arrived during the migration crisis.

The project will generate valuable knowledge about to what extent and how targeted support to municipalities trickles down to individual outcomes, both among students, teachers, and school management. The focus on school management (e.g. head teacher recruitment and turnover) is particularly interesting in this setting, since the school heads (i.e. municipalities) work closely with school management. By combining the effect study with data from our municipality survey and the NAE agreements which contain detailed information on the exact nature of the intervention in each municipality, we aim to learn more about which municipal practices that generate positive outcomes.

Table 1

Wave	Guarantee group	Treated	Control
1	8.18	3.88	3.91
2	2.69	1.8	1.82
3	4.09	2.75	2.79
4	1.78	1.13	1.13
5	1.71	1	1.01
6	0.77	0.46	0.45
Average	3.64	1.92	1.93

3. The effects of early school start on migrant children

Several previous studies have studied the effects of early school start by exploiting institutional cut-offs that stipulate when children should start school. In Sweden, children start school (first grade) the year they turn seven which means that children born in January are almost a year older than children born in December the same year, at the time they start school. This feature can be exploited in a so called fuzzy regression discontinuity design, that is, by comparing children born in December in a given year (who are a year younger at school start) with children born in January the following year (see e.g. Fredriksson and Öckert, 2014). Children born in December and January are almost the same age, and can be assumed to be very similar in other respects, which means that a comparison of children born on either side of the annual threshold can be informative of the effects of school starting age.

However, the interpretation of this result is complicated by the fact that scholastic achievement can also be affected by relative age in the classroom and by the age at which student achievement is assessed, which also differ by month of birth. As such, it is difficult to independently attribute differences between December and January-born children to school-starting age.

In this project we ask whether the effect of early school start differs between natives and immigrant children. We hypothesize that early school start might be relatively more beneficial for migrant children, who i) have lower attendance at pre-school and ii) have less exposure to the Swedish language. If early exposure to the school system and to the Swedish language has positive effects for this group, we expect the advantage of January-born relative to December-born children to be smaller among immigrant children compared to natives. In this study it is important to consider that in some migrant groups birth dates are poorly documented, and migrants are often registered as January-born once given residency in Sweden. We will handle this by limiting our analysis to birth countries that do not exhibit an over-representation of children born in January, or alternatively, by comparing December-born to February-born children.

Formally, we will estimate school-starting age effects using detailed data on month of birth and schooling outcomes, using a fuzzy regression continuity design (see Lee and Lemieux 2010 for a methodological summary). We will estimate effects for native and immigrant children separately, and test whether they are significantly different. Under the assumption that effects of relative age in the class, and assessment age effects, are the same for immigrants and natives, we will learn whether early school start is relatively more beneficial (i.e. less harmful) for immigrant children.

The study will focus on national test results in grade 3, 6 and 9, in Swedish and mathematics, as well as overall GPA at compulsory school graduation. It will also be possible to address potential effects on future educational choices. We will examine differential effects by gender and parental education, and address whether potential effects differ by earlier exposure to formal childcare. Although we cannot observe childcare attendance in our data, we can use indicators such as maternal employment and maternity leave for younger siblings as indicators for how much time children spend in home care vs. formal childcare. It will also be important to understand to what extent effects of early school start depend on the school's student composition.

[1] See e.g. Lavy and Schlosser (2011); Lavy, Silva, and Weinhardt (2012); Carrell, Hoekstra, and Kuka (2018); and Cools, Fernández, and Patacchini (2019).

Arbetsplan

Research group

Anna Sjögren is a very experienced project manager and Co-heads the Education research program at Institute for Evaluation of Labour Market and Education Policy (IFAU). She has significant knowledge of the Swedish school system and has been involved in advising the National Agency for Education in designing the roll-out of the targeted support program to be studied. She has expertise in program evaluation and quasi-experimental research designs and has published several papers on various aspects of human capital development. She also has a history working on issues relating to integration. Sjögren has published many articles concerning education, inequality, gender and family economics in highly ranked journals including Journal of Human Resources and Journal of Labor Economics as well as authored multiple government official investigations (SOU) covering topics such as inequality in child health and equity in education. Sjögren is the project leader and will coordinate the project. She will allocate 40% of her time to this project during the 3 years, 5-10% is project management 30-35% is research time on projects 1 and 2.

Helena Holmlund is a very experienced and well-published education and segregation researcher. She has also worked on issues relating to peer-effects and migrants in schools. She has a solid background in evaluation and empirical methods working with administrative data sources. Holmlund has published a large number of articles regarding intergenerational mobility, school segregation, human capital formation and crime in highly ranked journals including Economic Journal and Journal of Human Resources. Helena will allocate 40% of her time to the project. She will be fully responsible for project 3 and she will participate in the other projects.

Hanna Mühlrad is a researcher at the IFAU and affiliated with the Department of Clinical Sciences at Danderyd Hospital, Obstetrics and Gynecology, Karolinska Institutet. Her research has so far focused mainly on women's and children's health and wellbeing. She is currently also working on projects relating to human capital development, gender and labor market outcomes. Mühlrad has expertise in the fields of health, family and labor economics and has extensive knowledge of policy evaluation, study design and working with Swedish administrative data. She has published in both economic and medical outlets such as Journal of Health Economics, Obstetrics and Gynaecology and Journal of Women's Health. She will allocate 20 percent of her time to the project and be involved in project 2.

One or more doctoral students will be recruited to be part of the project.

Time plan and execution

The project is divided into sub-projects in which the participating researchers are involved in different constellations. The project will recruit a PhD student to be involved in the project.

The project contains three separate studies:

- *The causal effects of receiving large numbers of refugee students - Anna Sjögren, Helena Holmlund, and a PhD student*
- *The effects of the targeted support program to municipalities - Anna Sjögren, Helena Holmlund, Hanna Mühlrad and a PhD student*
- *The effects of early school start on language skills and school performance of immigrant children - Helena Holmlund and a PhD Student*

Schedule and milestones

The first two years of the project, the time will be allocated to organizing the data necessary for the project. A data scientist at IFAU will be assisting us in this work, working 10% of full time. More specifically, data processing encompasses merging and cleaning of annual Swedish administrative data covering detailed demographic, socioeconomic and educational information for the universe of Swedish children and their families. The administrative registers are part of IFAU's data resource. The three studies will be based on this data material. Because national testing has not taken place in 2020 and 2021, it is essential to update the data to include also test scores and grades for 2022.

A timetable for each project is outlined here below:

Study 1: The causal effects of receiving large numbers of refugee students

Year 1-2: Clean and commence analyzing administrative data (described above). Construct measures of school/cohort level refugee exposure bases on 1) school registers and 2) snapshots of refugee presence collected by NAE from the Swedish Migration Agency. Update research data and analyze to include schooling outcomes for 2022.

Further search for related literature. Participate and present preliminary results at workshops organized eg by UCLS and research networks

Year 2: Start write-up of working paper and Swedish non-technical report.

Year 3: Submit to conferences and workshops and update drafts. Disseminate findings to stakeholders. Submit research papers to academic journals. Write popular pieces.

Study 2: The effects of the targeted support program to municipalities

Year 1-2: Clean and commence analyzing administrative data (described above) as well National Agency for Education's (NAE) documentation of the implementation of the targeted support program, including bilateral agreements between NAE and school heads specifying the components of local interventions. Construct measures of school/cohort level refugee exposure based on 1) school registers and 2) snapshots of refugee presence collected by NAE from the Swedish Migration Agency. Update research data and analysis to include schooling outcomes for 2022. Further search for related literature. Participate and present preliminary results at workshops organized e.g. by UCLS and research networks. Hold regular meetings with NAE.

Year 2: Start write-up of working paper and Swedish non-technical report.

Year 3: Submit to conferences and workshops and update drafts. Disseminate findings to stakeholders. Submit research papers to academic journals. Write popular pieces.

Study 3: The effects of early school start on language skills and school performance of immigrant children

Year 1-2: Clean and commence analyzing administrative data (described above). Participate and present preliminary results at workshops organized e.g. by UCLS and research networks. Hold regular meetings with NAE.

Year 2: Start write-up of working paper and Swedish non-technical report.

Year 3: Submit to conferences and workshops and update drafts. Disseminate findings to stakeholders. Submit research papers to academic journals. Write popular pieces.

International and national collaboration

Sjögren, Holmlund and Mühlrad are all affiliated with the multi-disciplinary research center Uppsala Center for Labor Studies (UCLS) which focuses on the resilience of the labor market in times of globalization, immigration and technical change. UCLS offers frequent opportunities to present and discuss ongoing research with scholars within economics, political science, and law.

The researchers in the project are all employed by IFAU, which has close relations and collaborations with Uppsala Immigration Lab (UIL). This collaboration caters for at jointly productive and vibrant research environment with cutting edge Migration research, bringing together researchers from the fields of Economics, Political Science, Social and Economic Geography as well as scholars of Housing and Urban Research.

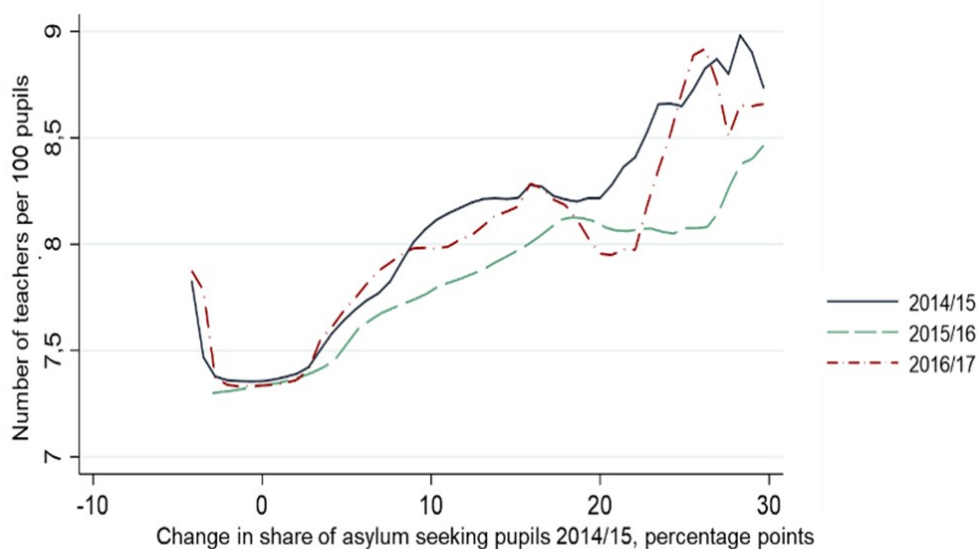
Furthermore, Anna Sjögren is a member of the Family and Education Workshop group consisting of e.g., Sandy Black, Columbia University, , Susan Dynarski, University of Michigan (Harvard from the fall 2021), David Figlio, Northwestern University, Mikael Lindahl, Gothenburg University, and Helena Skyt-Nielsen, Aarhus University . This group meets regularly, and in particular David Figlio, will serve as adviser to the project. Anna Sjögren also has an ongoing collaboration with Patricia Cortes, Boston University and Jessica Pan, University of Singapore.

Helena Holmlund is a CESifo Research Network Fellow and affiliated with the Economics of Education Network at CESifo in Munich, directed by Professor Eric Hanushek, Stanford University. Helena regularly collaborates with co-authors at the ifo Institute in Munich and will present the work at conferences organized by the network.

Hanna Mühlrad will be a visiting researcher at the Department of Economics, Stanford University, starting spring term 2022. Hanna is also a research associate at The ESRC Research Centre on Micro-Social Change (MiSoC). MiSoC is a multidisciplinary centre, promoting collaboration between economists, sociologists and other social scientists. MiSoC is based at the Institute for Social and Economic Research at the University of Essex.

Bilduppladdare

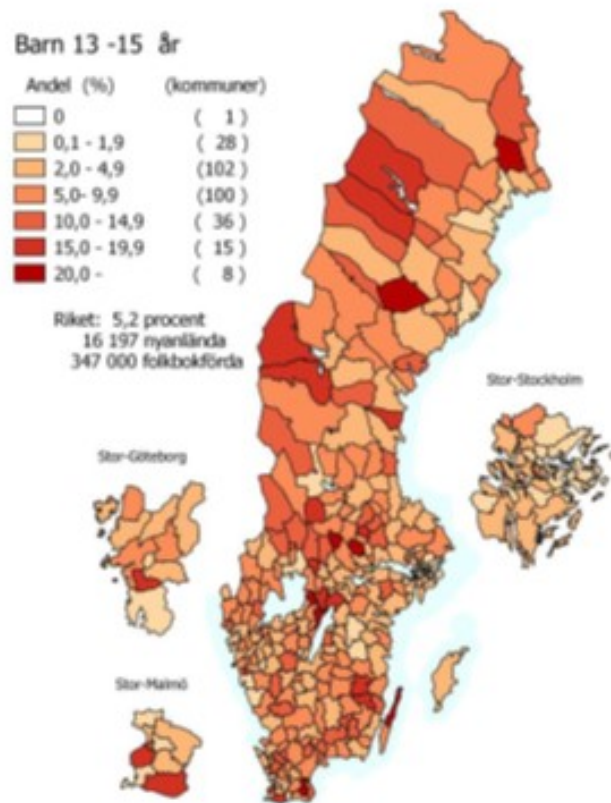
Figure 1: Teacher/student ratio in schools by change in the share of asylum-seeking pupils due to the 2015 refugee crisis.



Source: Holmlund et al 2019.

Figure 2 Recently accepted immigrants and asylum seekers as share of age group 13-15 in November 2015.

Source: National agency for education



Relevans i relation till samhällets behov och Fortes ansvarsområden

This project addresses the consequences of the 2015 refugee crisis, one of the great challenges in recent decades. The unprecedented inflow of migrants is still a cause of debate in Sweden, and in societies that were similarly affected. Of particular concern is that the challenges of refugee integration are carried disproportionately by schools and communities, and often by schools and communities which are already at a disadvantage. The present covid-19 crisis further stresses the need to address issues of inequity and segregation in schools. Understanding the integration of refugee children in school is key to improving long-run integration. Our focus on the life-chances of incumbent and refugee children, and schools is relevant for the welfare and future labour market success of children, for relations between migrants and natives, and for developing school and integration policies. This project will generate policy relevant and scholarly knowledge about these issues more generally, as well as contributing to the evidence base available to Swedish policymakers specifically.

Our project is of significant relevance to Forte's central fields of research *the working life and welfare*, relating closely to two of Forte's areas of coordination *the welfare of children and youth* and *international migration and ethnic relations*. In particular, this project focuses on children and adolescent's upbringing and living conditions by studying school environment and resources. In line with Forte's areas of coordination, this project focuses on a particularly vulnerable group consisting of both foreign-born students and refugee children. This is important because there are large gaps in socioeconomic outcomes between migrant and non-migrant individuals. Access to high-quality education may reduce the inequalities between these groups. In the light of this, our project will address important questions regarding the role of education in promoting integration by generating policy relevant knowledge.

The research questions addressed in this project are further brought to the fore by the current pandemic. The teacher and pupil absenteeism together with distance learning are likely exacerbating educational inequalities. Our project will further our understanding of educational inventions that may close these gaps. This project further relates to the Agenda 2030 goals concerning *quality of education, reduced inequalities, and peaceful and inclusive societies*.

Samverkan med användare av forskningen

This project aims at promoting integration in the Swedish school system. The research group has initiated collaboration with the NAE with respect to a governmental mandate on "strengthening the quality of education for newly arrived students and for students with a mother tongue other than Swedish" (Dnr U2017/00300/S). The NAE program to strengthen the quality of education for refugee children contains both general efforts, including competence building and providing more resources (materials and information), as well as targeted efforts to schools with limited prior experience of integrating refugee children.

Through this project, we support the NAE by conducting an external and independent evaluation of both general and targeted initiatives focusing on assessing the impacts of these targeted initiatives on the students' long-term goal fulfilment. We will maintain relations and continue our collaboration with the NAE.

To facilitate a rigorous evaluation of these efforts, the research group has proposed to the NAE that the roll out of this program should, among the schools with the greatest need of the program, be randomized. This procedure ensures the presence of a control group such that schooling outcomes across treated and non-treated units can be compared and analyzed.

This project will generate policy relevant knowledge for Schools, Local Authorities and Regions, NAE, Ministry of Education and Research and the Swedish Association of Local Authorities and Regions. The results may affect the design and intensity of NAE's program of strengthening the quality of education for refugee children.

Furthermore, it is of interest for the design of future education interventions to evaluate this first attempt at a randomized implementation of targeted support. The project's results are also of interest to the greater research community and to other countries and communities with a large influx of refugee children.

Researchers at IFAU have a continuous policy dialogues with other government school agencies. The results of this project will be an important input into these discussions.

Nyttiggörande och kommunikation av forskningsresultat

The project will produce at least three scholarly papers aimed for publication in international journals and three non-technical reports in Swedish. Further scholarly impact will be achieved through presentation of our work at national and international conferences and workshops. The ultimate beneficiaries of our work are schools and students. This project has a clear policy perspective and we expect to influence the progress towards evidence-based practice in the Swedish educational system as well as expanding our general knowledge of integrating a large influx of refugee children to a modern-day educational system. We do this by 1) evaluating a targeted support program to municipalities launched by the National Agency for Education (NAE) in 2016, and 2) by examining effects of early school start on language skills and school performance of immigrant children.

Beyond providing evidence on the effectiveness of the targeted NAE-support program, the proposed project generates valuable knowledge about school improvement programs which are based on collaborative dialogues between schools and implementing agents and more specifically on the effectiveness of coaching and professional development programs in improving outcomes for refugee and multilingual students. Moreover, the proposed evaluation is the first to exploit a sequential randomized roll out, which is unique in a Swedish context since national education programs are rarely implemented in a randomized fashion.

Results will be disseminated through social media e.g., blogs, media, twitter, podcasts as well as scholarly venues, working papers, and seminars at policy-making institutions. The research team has extensive experience in publishing in high-ranking scholarly journals including Journal of Human resources, Economic Journal, Demography, Journal of Labor Economics, Journal of Health Economics as well as participated in outlets including Le Monde diplomatique, Ekonomisk Debatt, Sveriges Television, Sveriges Radio, EBA Development Dissertation Brief-Series, the Swedish Ministry of Foreign Affairs (Utrikesdepartementet), VOXDev, SNS (Studieförbundet Näringsliv och Samhälle).

We plan to organize a workshop at IFAU in the final year of the project, inviting academics, potential beneficiaries and relevant institutions including the Ministry of Education and Research, the National Agency for Education and the Swedish Association of Local Authorities and Regions.

Köns- och genusperspektiv i forskningens innehåll

Är ett köns- eller genusperspektiv tillämpligt för ditt projekt?

Ja

Motivera ditt svar

As outlined in the project description, there are multiple important gender aspects of studying the impacts of the 2015 refugee crisis on schools and students. First, in view of substantial differences in schooling outcomes of boys and girls, and the fact that immigrant girls often outperform native boys in Swedish schools, it is of great relevance for the project to analyse effects separately for boys and girls. Compared to girls from disadvantage families, boys from similar background tend to have more disciplinary problems and lower rates of high school graduation (Figlio et al. 2019). Moreover, the gender-gap in school performance appears to be similar among immigrant pupils as among pupils with a non-immigrant background (Holmlund et. al. 2021).

Second, the 2015 refugee crisis involved large numbers of refugee children, mostly boys, arriving by themselves. This is of course another important aspect, since it implies that not only did the fraction of recent immigrants increase, the fraction of boys increased in many classrooms as well. For example, Hoxby (2000) shows that this has implications for the learning environment and for the peer effects in the classroom. Hoxby (2000) finds that higher rate of girls in the classroom appears to increase performance for both males and females, despite that female and male performance on average is about the same.

Third, evaluation of interventions in schools and programs to enhance human capital accumulation often show differential impacts by gender. Although far from fully understood, some of these gendered effects may be related to expectations and gender norms. There is some evidence supporting that cultural norms may influence gender gaps in school performance. Ericsson (2021) shows that gender gap in math among siblings is higher among students whose family originates from cultures characterized by traditional gender norms. Of particular interest in our context, is that these norms are not necessarily shared by native and immigrant students.

Tvär- och flervetenskap

Tvär- och/eller flervetenskaplig ansats

The economic integration of immigrants has both intrinsic and instrumental value to society. On the first point, economic integration tends to raise the living standards of immigrants both within and across generations and promotes equality of opportunity. On the second, such integration tends to improve social cohesion and economic performance more broadly. The topics of integration and education are central themes across several disciplines including political sciences, law, social and cultural geography, sociology, pedagogy, social medicine, and economics. This is partly reflected in the literature review in the project description.

While the research group consists of economists, the research group will maintain and develop collaboration and exchange with research communities across multiple disciplines. Through affiliation and collaboration with the Uppsala Center for Labor Studies and Uppsala Immigration Lab the project gains access to seminars and workshops gathering scholars of economics, political science, law, urban studies, and social and cultural geography. The project will also benefit from the research environment at the interdisciplinary institute MiSoC based at the Institute for Social and Economic Research at the University of Essex and from perspectives of scholars of social medicine present at the Department of Clinical Sciences at Karolinska Institutet, to which Hanna Mühlrad is affiliated. These contacts will enrich the project with perspectives from multiple disciplines and ensure that relevant perspectives and research literatures are not overseen.

Etik

Etiska överväganden

The project analyses micro level administrative data covering natural persons and legal entities (e.g. schools and employers), from IFAU's project database "Skolans teknologi och resurser". An approved ethics application (2014-12-10, dnr 2014/465) covers the project. Municipal level data on local refugee student reception practices was collected by IFAU with the approval of the Swedish Association of Local Authorities and Regions.

In protection of the integrity and anonymity of the individuals and legal entities, data are pseudomized. The exception are schools, whose names and addresses are known as this is necessary to identify participation in interventions. The use of this information is specifically covered in the Ethics approval (dnr 2014/465).

The project does not analyse sensitive personal information, *känsliga personuppgifter*, such as health status, ethnicity, sexual orientation, or penal convictions (Article 9 (1) of the Data Protection Regulation 2016/679 (GDPR)). It does, however, use information on special educational support (special needs education), mother tongue instructions and detailed socio-economic family characteristics and region of origin of migrant children and parents. The IFAU database, identifies larger birth regions instead of specific birth countries as a measure to avoid identification of specific migrant groups.

Processing of data at IFAU is regulated in the Act on the Processing of Personal Data at the Institute for Evaluation of Labour Market and Education Policy, SFS 2012: 741, and in ordinance with the processing of personal data at the Institute for Evaluation of Labour Market and Education Policy, SFS 2012: 742. The project is also subject to IFAU's internal research policy with rigorous processes when accessing, processing and storing data. Data are stored and accessed by the researchers only through password protected servers while the project is active.

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Kostnadslag och totalt sökt belopp

Aktivitetsgrad i projektet

Roll i projektet	Namn	Procent av heltid
1 Projektledare	Anna Sjögren	40%
2 Medverkande forskare	Helena Holmlund	40%
3 Medverkande forskare	Hanna Mühlrad	20%
4 Doktorand	to be recruited	100%
5 Övrig ej disputerad personal	data scientist	10%

Löner inklusive sociala avgifter

Roll i projektet	Namn	Procent av lönen		
1 Projektledare	Anna Sjögren	15%		
2 Medverkande forskare	Helena Holmlund	15%		
3 Medverkande forskare	Hanna Mühlrad	15%		
4 Doktorand	to be recruited	100%		
5 Övrig ej disputerad personal	data scientist	10%		
Totalt				
	2022	2023	2024	Totalt
1	188 500	192 300	196 200	577 000
2	166 100	169 400	172 800	508 300
3	119 500	121 800	124 300	365 600
4	532 800	543 400	554 300	1 630 500
5	79 600	81 200	0	160 800
Totalt	1 086 500	1 108 100	1 047 600	3 242 200

Driftskostnader

Driftskostnader	Beskrivning	2022	2023	2024	Totalt
1 konferensdeltagande	0	10 000	30 000	30 000	70 000
Totalt		10 000	30 000	30 000	70 000

Totalt sökt belopp

Specificerade kostnader	2022	2023	2024	Totalt, sökt	Total kostnad
1 Löner inkl. sociala avgifter	1 086 500	1 108 100	1 047 600	3 242 200	3 242 200
2 Driftskostnader	10 000	30 000	30 000	70 000	70 000
3 Delsumma	1 096 500	1 138 100	1 077 600	3 312 200	3 312 200
4 Indirekta kostnader	565 000	576 300	544 700	1 686 000	1 686 000
5 Total projektkostnad	1 661 500	1 714 400	1 622 300	4 998 200	4 998 200

Annan finansiering

Annan finansiering för detta projekt

Finansiär	Sökande/projektledare	Typ av bidrag	Status	Dnr eller motsv.
1 Vetenskapsrådet	Anna Sjögren	projekt	Sökt	2021-00951
Totalt				
	2022	2023	2024	Totalt
1	1 699 000	1 699 000	1 699 000	5 097 000
Totalt	1 699 000	1 699 000	1 699 000	5 097 000

CV

CV - Anna Sjögren

Projektledare: Anna Sjögren

Födelsedatum: 19660608

Kön: Kvinna

Land: Sverige

Dr-examen: 1998-12-11

Akademisk titel: Docent

Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)

Doktorsexamen

Examen	Organisation	Avhandlingens titel (originalspråk)	Handledare
50201. Nationalekonomi, 1998- 12-11	Handelshögskolan i Stockholm		Mårten Palme

Utbildning

Forskarutbildning

Examen	Organisation	Namn på handledare
Doktorsexamen, 50201. Nationalekonomi, 1998- 12-11	Handelshögskolan i Stockholm, Sverige	Mårten Palme

Utbildning på grund- och avancerad nivå

År	Examen
1991	50201. Nationalekonomi, Magisterexamen, Handelshögskolan i Stockholm, Sverige

Arbetsliv

Anställningar

Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare
juni 2008 - Nuvarande	Forskare	100	Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)
november 2010 - juni 2013	Forskare	100	Stockholms universitet
januari 2000 - maj 2008	Forskare	100	Institutet för näringslivsforskning (IFN)

Postdoktorvistelser		
Period	Organisation	Ämne
oktober 2000 - juni 2001	The University of Chicago, USA, Department of Economics	50201. Nationalekonomi

Uppehåll i forskningen	
Period	Beskrivning
2002-04-10 - 2003-01-10	Parental leave
1999-02-22 - 2000-01-15	Parental leave
1997-06-24 - 1998-06-30	Parental leave

Meriter och utmärkelser

Docentur		
År	Ämne	Organisation
2011	50201. Nationalekonomi	Stockholms universitet, Sverige

Handledda personer		
År	Handledda personer	Roll
2022	Doktorand, Lillit Ottosson	Bihandledare
2020	Doktorand, Dagmar Müller, Uppsala universitet, Sverige	Bihandledare

Bidrag erhållna i konkurrens				
Period	Finansiär	Projektledare	Din roll	Totalt belopp (kr)
2016 - 2020	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Anna Sjögren		4 500 000
2011 - 2013	Forte, Sverige - Annan forskningsfinansiär	Anna Sjögren	Projektledare	3 300 000
2011 - 2013	Forte, Sverige - Annan forskningsfinansiär	Anna Sjögren	Projektledare	3 300 000
2006 - 2008	RJ - Riksbankens Jubileumsfond, Sverige - Annan forskningsfinansiär	Anna Sjögren	Projektledare	2 710 000
2004 - 2006	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Anna Sjögren		1 700 000

CV - Helena Holmlund

Medverkande forskare: Helena Holmlund	Dr-examen: 2006-06-09
Födelsedatum: 19760702	Akademisk titel: Docent
Kön: Kvinna	Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)
Land: Sverige	

Utbildning

Forskarutbildning			
Examen	Organisation	Avhandlingens titel	Namn på handledare

Examen	Organisation	Avhandlingens titel	Namn på handledare
Doktorsexamen, 50201. Nationalekonomi, 2006-06-09	Stockholms universitet, Sverige, Nationalekonomiska institutionen	Education and the family: Essays in empirical labour economics	Anders Björklund

Arbetsliv

Anställningar			
Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare
augusti 2013 - Nuvarande	Forskare, Tillsvidareanställning	100	Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)
oktober 2009 - juli 2013	Postdoktor, Projektanställning	100	Stockholms universitet, Sverige, Institutet för social forskning

Postdoktorvistelser		
Period	Organisation	Ämne
september 2006 - september 2009	London School of Economics and Political Science, Storbritannien och Nordirland, Centre for Economic Performance	50201. Nationalekonomi

Forskarutbyten			
Period	Typ	Organisation	Ämne
augusti 2019 - maj 2020	Gästforskare	VATT Institute for Economic Research	50201. Nationalekonomi

Uppehåll i forskningen	
Period	Beskrivning
2011-04-01 - 2012-02-01	Föräldraledig
2008-11-01 - 2009-01-01	Föräldraledig

Meriter och utmärkelser

Docentur		
År	Ämne	Organisation
2013	502. Ekonomi och näringsliv	Stockholms universitet, Sverige, Nationalekonomiska institutionen

Bidrag erhållna i konkurrens				
Period	Finansiär	Projektledare	Din roll	Totalt belopp (kr)
2014 - 2017	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Helena Holmlund	Projektledare	4 060 000

Medverkande forskare: Hanna Mühlrad

Födelsedatum: 19870328

Kön: Kvinna

Land: Sverige

Dr-examen: 2018-01-25

Akademisk titel: Doktor

Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)

Utbildning

Forskarutbildning			
Examen	Organisation	Avhandlingens titel	Namn på handledare
Doktorsexamen, 50201. Nationalekonomi, 2018-01-25	Göteborgs universitet, Sverige, Nationalekonomi med statistik, inst för	Reproduktiv teknologi och sjukvård: Effekter på hälsa, fertilitet och arbetsmarknadsutfall	Randi Hjalmarsson
Licentiatexamen, 50201. Nationalekonomi, 2016-04-19	Göteborgs universitet, Sverige, Nationalekonomi med statistik, inst för	The impact of abortion legalization on fertility and maternal mortality: New evidence from Mexico	Andreea Mitrut

Utbildning på grund- och avancerad nivå

År **Examen**

2009 50201. Nationalekonomi, Kandidatexamen, Stockholms universitet, Sverige

Arbetsliv

Anställningar			
Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare
augusti 2020 - Nuvarande	Forskare, Tillsvidareanställning	100	Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)
februari 2019 - Nuvarande	Postdoktor, Tillsvidareanställning	100	Karolinska Institutet, Sverige, KI DS (Institutionen för kliniska vetenskaper, Danderyds sjukhus)
januari 2018 - september 2018	Projektledare/utredare, Vikariat	0	Socialstyrelsen, Sverige, Avdelningen för utvärdering, enheten för epidemiologi och metodstöd

Postdoktorvistelser

Period	Organisation	Ämne
februari 2019 - juli 2020	Karolinska Institutet, Sverige, KI DS (Institutionen för kliniska vetenskaper, Danderyds sjukhus)	30302. Folkhälsovetenskap, global hälsa, socialmedicin och epidemiologi
april 2018 - februari 2019	Lunds universitet, Sverige, Nationalekonomiska institutionen 263021	50201. Nationalekonomi

Forskarutbyten

Period	Typ	Organisation	Ämne
augusti 2014 - januari 2017	Gästdoktorand	Stockholms universitet, Sverige, Institutet för social forskning	50201. Nationalekonomi
januari 2014 - mars 2014	Gästdoktorand	University of Oxford, Storbritannien och Nordirland, Department of Economics	50201. Nationalekonomi

Meriter och utmärkelser

Handledda personer			
År	Handledda personer	Roll	Antal
	Student	Huvudhandledare	2
	Student	Huvudhandledare	10
2022	Doktorand, Jonas Lundqvist, Lunds universitet, Sverige, Nationalekonomiska institutionen 263021	Bihandledare	
2016	Student, Steve Berggreen-Clausen, Göteborgs universitet, Sverige, Nationalekonomi med statistik, inst för	Huvudhandledare	

Bidrag erhållna i konkurrens					
Period	Finansiär	Projektledare	Din roll	Delbelopp (kr)	Totalt belopp (kr)
2020 - 2022	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Hanna Mühlrad	Projektledare	0	3 150 000
2020 - 2022	Crafoordska stiftelsen, Sverige - Branschforskningsinstitut (forskningsinstitut som bygger upp, förädlar och förmedlar behovsmotiverad FoU inom en viss bransch)	Therese Nilsson	Medverkande	0	1 000 000
2019 - 2021	Försäkringskassan, Sverige - Övriga statliga myndigheter	Dr. Nina Bohm-Starke	Medverkande	0	2 500 000

Publikationer

Publikationer - Sjögren, Anna

Projektledare: Anna Sjögren	Dr-examen: 1998-12-11
Födelsedatum: 19660608	Akademisk titel: Docent
Kön: Kvinna	Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)
Land: Sverige	

Vetenskaplig publikation - fackgranskade

Originalartikel i vetenskaplig tidskrift

Titel: Consequences of parental job loss on the family environment and on human capital formation-Evidence from workplace closures

Författare: Eva Mörk, Anna Sjögren, Helena Svaleryd

Publiceringsdatum: 2020-12-01 **Volym:** 67 **Utfärdandenummer:** 2020

Namn på tidskrift: Labour Economics

Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: How long and how much? Learning About the Design of Wage Subsidies from Policy Changes and Discontinuities

Författare: Anna Sjögren, Johan Vikström

Publiceringsdatum: 2015-06-01 **Volym:** 34 **Utfärdandenummer:** 2015

Namn på tidskrift: Labour Economics

Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: Long-term intergenerational persistence of human capital: An empirical analysis of four generations

Författare: Mårten Palme, Mikael Lindahl, Sofia Sandgren Massih, Anna Sjögren

Publiceringsdatum: 2015-01-01 **Volym:** 50 **Utfärdandenummer:** 1

Namn på tidskrift: Journal of Human Resources

Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: A test of the Becker-Tomes model of human capital transmission using microdata on four generations

Författare: Mårten Palme, Sofia Massih Sandgren, Mikael Lindahl

Publiceringsdatum: 2014-04-30 **Volym:** 8 **Utfärdandenummer:** 1

Namn på tidskrift: Journal of Human Capital

Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: Parental Unemployment and Child Health

Författare: Eva Moerk, Anna Sjoegren, Helena Svaleryd

Publiceringsdatum: 2014 **Volym:** 60 **Utfärdandenummer:** 2

Namn på tidskrift: CESIFO ECONOMIC STUDIES

Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: Childcare costs and the demand for children-evidence from a nationwide reform

Författare: Eva Mörk, Anna Sjögren, Helena Svaleryd

Publiceringsdatum: 2013 **Volym:** 26 **Utfärdandenummer:** 1

Namn på tidskrift: Journal of Population Economics

Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Sammanfattning:

Exploiting the exogenous variation in user fees caused by a Swedish childcare reform, we are able to identify the causal effect of childcare costs on fertility in a context in which childcare enrollment is almost universal, user fees are low, and labor force participation of mothers is very high. Anticipation of a reduction in childcare costs increased the number of first and higher-order births, but only seemed to affect the timing of second births. For families with many children we also find a marginally significant negative income effect on fertility.

Titel: Peers and culture

Författare: Maria Saez-Marti, Anna Sjoegren

Publiceringsdatum: 2008 **Volym:** 110 **Utfärdandenummer:** 1

Namn på tidskrift: SCANDINAVIAN JOURNAL OF ECONOMICS

Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Bok

Titel: Jämlikhet i möjligheter och utfall i svensk skola: Bilaga till LU SOU2019:40

Författare: Helena Holmlund, Anna Sjögren, Björn Öckert

Publiceringsdatum: 2019-08-26

Förlag: Nordsteds juridik

Vetenskaplig publikation - fackgranskade: Bok

Titel: Decentralisering, skolval och fristående skolor: resultat och likvärdighet i svensk skola
Författare: Helena Holmlund, Josefin Hägglund, Erica Lindahl, Anna Sjögren, Ulrika Vikman, Björn Öckert
Publiceringsdatum: 2014-12-10 **Volym:** 2014 **Utfärdandenummer:** 25
Namn på tidskrift: IFAU Rapport
Förlag: IFAU
Vetenskaplig publikation - fackgranskade: Bok

Titel: Fritt inträde? Ungdomars och invandrades väg till det första arbetet
Författare: Olof Åslund, Robert Erikson, Oskar Nordström Skans, Anna Sjögren
Publiceringsdatum: 2006-11-23
Förlag: SNS Förlag
Vetenskaplig publikation - fackgranskade: Bok

Publikationer - Helena Holmlund

Medverkande forskare: Helena Holmlund	Dr-examen: 2006-06-09
Födelsedatum: 19760702	Akademisk titel: Docent
Kön: Kvinna	Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)
Land: Sverige	

Vetenskaplig publikation - fackgranskade

Originalartikel i vetenskaplig tidskrift

Titel: Parental Choice, Neighbourhood Segregation or Cream Skimming? An Analysis of School Segregation After a Generalized School Reform
Författare: Anders Böhlmark, Helena Holmlund, Mikael Lindahl
Publiceringsdatum: 2016-02-01 **Volym:** 29 **Utfärdandenummer:** 4
Namn på tidskrift: Journal of Population Economics
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: The Effect of Education on Criminal Convictions and Incarceration: Causal Evidence from Micro Data
Författare: Randi Hjalmarsson, Helena Holmlund, Matthew Lindquist
Publiceringsdatum: 2015-12-01 **Volym:** 125 **Utfärdandenummer:** 587
Namn på tidskrift: Economic Journal
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: Targeting Non-Cognitive Skills to Improve Cognitive Outcomes: Evidence from a Remedial Education Intervention
Författare: Helena Holmlund, Olmo Silva
Publiceringsdatum: 2014-12-01 **Volym:** 8 **Utfärdandenummer:** 2
Namn på tidskrift: Journal of Human Capital
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: The Causal Effect of Parents' Schooling on Children's Schooling: A Comparison of Estimation Methods
Författare: Helena Holmlund, Mikael Lindahl, Erik Plug
Publiceringsdatum: 2011-12-01 **Volym:** 49 **Utfärdandenummer:** 3
Namn på tidskrift: Journal of Economic Literature
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: Long-Term Consequences of Teenage Childbearing: An Examination of the Siblings Approach
Författare: Helena Holmlund
Publiceringsdatum: 2005-12-01 **Volym:** 40 **Utfärdandenummer:** 3
Namn på tidskrift: Journal of Human Resources
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Publikationer - Hanna Mühlrad

Medverkande forskare: Hanna Mühlrad
Födelsedatum: 19870328
Kön: Kvinna
Land: Sverige

Dr-examen: 2018-01-25
Akademisk titel: Doktor
Arbetsgivare: Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU)

Vetenskaplig publikation - fackgranskade

Originalartikel i vetenskaplig tidskrift

Titel: Early life health in women with provoked vestibulodynia and/or vaginismus
Författare: Hanna Mühlrad, Philip Haraldson, Nina Bohm-Starke, Bernard Harlow, Marie Anell-Olofsson
Publiceringsdatum: 2021-01-04
Namn på tidskrift: Journal of Women's Health
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: Abortion Laws and Women's Health
Författare: Hanna Mühlrad, Damian Clarke
Publiceringsdatum: 2020-12-13 **Utfärdandenummer:** 102413
Namn på tidskrift: Journal of Health Economics
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Titel: Botulinum Toxin A as a Treatment for Provoked Vestibulodynia: A Randomized Controlled Trial
Författare: Philip Haraldson, Nina Bohm-Starke, Ulrika Heddini, Kent Nilsson, Hanna Mühlrad
Publiceringsdatum: 2020-09-01 **Volym:** 136
Namn på tidskrift: Obstetrics & Gynecology
Vetenskaplig publikation - fackgranskade: Originalartikel i vetenskaplig tidskrift

Annan publikation inklusive populärvetenskaplig

Titel: The Impact of Reproductive and Birth Technologies on Health, Fertility and Labor Outcomes
Författare: Hanna Mühlrad
Publiceringsdatum: 2017-12-19
Förlag: University of Gothenburg, Department of Economics, doctoral thesis
Vetenskaplig publikation - fackgranskade: Annan publikation inklusive populärvetenskaplig
Sammanfattning:

Access to reproductive health including care during pregnancy and childbirth is paramount for mothers, children and families worldwide. Despite the rapid use of reproductive and birth technologies, multiple questions regarding the impact of this technological advancement still remain. This thesis addresses these issues by focusing on the causal and long-term effects including health indicators, fertility outcomes, female empowerment and labor market outcomes. In the first chapter, I study the causal impacts of planned Cesarean section for high risk births on health, future fertility and labor market responses. In the second chapter, we examine the passage of a reform to in-vitro fertilization (IVF) procedures, mandating single embryo transfer as default. In the last chapter, we study the effect from abortion legalization in Mexico City on fertility, contraceptive use and female empowerment.

Vetenskaplig publikation - inte fackgranskade

Annan publikation inklusive populärvetenskaplig

Titel: Kejsarsnitt vid högriskförlossningar – effekter på hälsa, fertilitet och arbetsmarknadsutfall
Författare: Hanna Mühlrad
Förlag: Nationalekonomiska Föreningen, Ekonomisk Debatt
Vetenskaplig publikation - inte fackgranskade: Annan publikation inklusive populärvetenskaplig

Registrera

Villkor

Registrera ansökan: Ansökan ska förutom av den sökande även signeras av behörig företrädare för medelsförvaltaren. Företrädaren är vanligtvis prefekten vid den institution där forskningen ska bedrivas, men ska i vissa fall utgöras av exempelvis rektor. Detta framgår i sådana fall av den aktuella utlysningstexten för bidraget.

Signeringen av *den sökande* innebär en bekräftelse av att:

- uppgifterna i ansökan är korrekt och följer Forskningsrådet för hälsa, arbetsliv och välfärds instruktioner
- bisysslor och kommersiella bindningar har redovisats för medelsförvaltaren och att det där inte framkommit något som strider mot god forskningssed
- nödvändiga tillstånd och godkännanden finns vid projektstart, exempelvis avseende etikprövning.

Signeringen av *medelsförvaltaren* innebär en bekräftelse av att:

- den beskrivna forskningen, anställningen och utrustningen kan beredas plats inom institutionen under den tid och i den omfattning som anges i ansökan
- institutionen godkänner kostnadsberäkningen i ansökan
- projektet bedrivs i enlighet med svensk lagstiftning.

Ovanstående punkter ska ha diskuterats mellan parterna innan företrädaren för medelsförvaltaren godkänner och signerar ansökan.