Inclusion of people with disabilities into society and the labor market

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Introduction

Inclusion of people with disabilities has many different aspects. Two that I focus on in my research are inclusive education and inclusion on the labor market.

Inclusive education

Peer effects of students with special needs

Following the UN Convention on the Rights of the Child in 1989 and the UNESCO Salamanca Statement in 1994, countries worldwide have adopted more inclusive education practices for students with special needs. Special needs (SN) refer to the requirement of assistance for medical, mental, or psychological disabilities. In the United States, the Individuals with Disabilities Education Act (IDEA) mandates that students with special educational needs have the legal right to be educated in the least restrictive environment. The practice of mainstreaming, i.e., schooling SN students in regular classrooms among students without SN, is also pervasive in Europe, where the enrollment rate in mainstream education is approximately 97% (European Agency for Special Needs and Inclusive Education, 2018; European Commission, 2017).

Despite the policy trend towards inclusive education, little is known about how inclusion affects the achievement of students and their long-run outcomes (Lindsay, 2007). While advocates of inclusion claim that all students have the right to be educated in regular schools, opponents argue that inclusive education may adversely affect students without special needs.

In my research together with Simone Balestra and Helge Liebert (Balestra, Eugster, and Liebert, 2020a), we investigate how exposure to special needs students affects achievement, subsequent educational choices, and labor market outcomes. To answer this research question we compile a novel data set containing administrative health records, student test scores, and educational transitions as well as labor market outcomes. These data allow us document the direct, delayed, and long run externalities generated by the inclusion of special needs students. The results show that having higher proportions of SN students in a class creates negative achievement externalities at the end of compulsory schooling. One additional SN student in a class of 20 reduces test scores by 2.5% of a standard deviation. There is substantial effect heterogeneity. The negative externalities are driven primarily by students with severe special needs, and the largest negative externalities are found among students at the lower end of the achievement distribution and special needs students themselves. Threshold effects are also relevant, because we find that negative spillovers occur only after SN students exceed 15-20% of students in a classroom. Exposure to SN peers has lasting effects. Lower
educational achievement perpetuates as a reduced propensity to pursue post-compulsory education and, ultimately, lower income upon labor market entry.

Given these empirical results, we analyze the implications of reallocation policies and consider the scope for government intervention to potentially reduce negative spillovers. Using the technique of Graham (2011) to analyze optimal classroom assignment, we find that despite its negative spillovers, mainstreaming clearly dominates an alternative education policy of segregation. This result is driven by the fact that under segregation, negative externalities for special needs students are not compensated by the gains from reallocation for students without special needs. The optimal assignment rule implies that special needs students should be allocated evenly across classes.

**School starting age and the emergence of special needs**

Virtually all education systems have a single cutoff date that determines when children become eligible for compulsory schooling. This cutoff rule creates a continuum of ages at school entry (SSA), whereby the oldest child is up to one year older than his or her youngest classmates.

Based on the same data as in the study described above, Simone Balestra, Helge Liebert, and I study the causal effect of SSA on a child’s probability of developing special educational needs in early grades (Balestra, Eugster, and Liebert, 2020b). We then assess the persistence of SSA effects in terms of scholastic achievement at the end of compulsory schooling and on labor market entry. We are able to credibly identify the effects of SSA through a “regression discontinuity design” based on the exact day of birth. In Switzerland, children enter compulsory education in the fall if they have reached age four before August 1 of the same year. This institutional rule allows us to compare children born around the school starting cutoff, children who are observationally similar but enter school at different ages.

The results indicate that children entering school at a younger age have a higher risk of developing special needs than children starting school one year later. Being born shortly before August 1 increases the probability of developing special needs by five percentage points or about 14%. By distinguishing by type of special needs, we find that entering school at a younger age mostly increases behavioral problems and speech impediments. The incidence of learning disabilities, dyslexia/dyscalculia, and ADHD are unaffected by SSA.
At the end of compulsory education, differences in SSA still affect students’ school outcomes. We find that younger students perform worse on standardized tests. While no effects are found for grade repetition during primary and secondary school, we find that younger students are more likely to be allocated to a bridge year between kindergarten and primary school. These results suggest that many children starting school at a younger age will eventually prolong their compulsory education by one year. The differences at the end of compulsory schooling disappear in the long run, when adolescents choose their post-compulsory education track.

Simple measures may mitigate the vulnerability of relatively young children who are born just before the cutoff date. Institutional context matters, and it appears that flexibility of the school system is key. Postponing school entry by one year, or granting an extra year to bridge between kindergarten and primary school, avoids carrying early developmental delays over to compulsory schooling.

**Inclusion on the labor market**

The large number of people with disabilities, their low labor market attachment and their high dependency on social assistance create considerable costs to society (OECD, 2010). Many countries are thus forced to reform their disability insurance (DI) systems. One of the prime problems to be solved is the work disincentive effects of DI systems. Because DI beneficiaries fear losing a significant portion of their benefits if labor supply exceeds certain thresholds – so called “cash cliffs” – they do not increase employment above this level (substitution effect). Furthermore, DI benefits increase non-earned income, which reduces employment if people prefer leisure over labor (income effect). Although these two mechanisms are well understood in theory, identifying income and substitution effects empirically is challenging. Individual reactions to changes in the benefit schedule usually reflect both mechanisms jointly and are therefore not informative of either effect.
In my research together with Eva Deuchert, we present novel insights into the importance of the income and substitution effects by evaluating a reform of the Swiss DI system. The Swiss system insures partial disability, where beneficiaries can work and claim DI benefits simultaneously. The level of DI benefits is a step-wise function of disability degree, which is assessed by the DI and represents the presumed earnings loss due to the disability (in percent). In January 2004, Switzerland further graduated the DI benefit system and introduced a three-quarter DI benefit, in addition to the existing one-quarter DI benefit, one-half DI benefit, and full DI benefit. The reform led to a substantial loss in DI benefits for a subset of beneficiaries and imposed a new earnings threshold for the full benefit. The theoretical effects are conflicting. The income effect is likely to increase labor supply because the loss in DI benefits must be compensated by an increase in earnings. The substitution effect is likely to reduce incentives to work because a reduction in earnings signals an increase in disability degree and therefore can lead to a preservation of the full DI benefit.

We find that the reform has a modest average effect of 2.3 percentage points on employment and no effect on earnings. Decomposing the average effect, we show that the income effect increased employment by 9 to 20 percentage points and increased earnings by 136 to 3135 CHF, which is up to 50% of the mean pre-reform earnings. The share of individuals complying to the reform and thus experiencing a decline in DI benefits is, however, small (25%). The majority of individuals kept a full DI benefit, but there was only a small labor supply reaction to the reform of these DI beneficiaries. Individuals had thus other possibilities to signal a higher disability degree to keep a full DI benefit than reducing their earnings. This result suggests that caseworkers helped the affected individuals by lifting their disability degree over the threshold of 70% to ensure they were still eligible for a full DI benefit. We indeed find an immediate and persistent increase in the disability degree of approximately 3 percentage points, which is driven by individuals who had earnings below the new threshold already before the reform.

![Graphs](image.png)

**Note:** Time trends for individuals experiencing a benefit cut (solid) and individuals exempted from cut (dashed). Vertical lines represent the time of the reform (January 2004). Source: Eugster and Deuchert (2019)
The increase of the disability degree for a large share of the affected individuals was eased in the specific context of the reform by an automatic reevaluation of the disability degree, even though caseworkers were not advised to increase disability degrees (FSIO, 2003; Janett, Zogg, and Heinis, 2005). Linking the payout structure directly to disability induced income losses – together with the considerable leeway of caseworkers when assessing potential incomes with and without disability – is thus a concept that might lead to manipulation of the disability degree and undermine the desired incentive effects of a graduated pension scheme.

References


