

# Causes and consequences of educational inequalities

What can policymakers learn from Dynamics of Inequality Across the Life-course (DIAL) research?

## Key Findings

- The more selective an education system is, and the earlier the age at which selection takes place, the more likely it is to perpetuate social inequalities. To create more equitable systems of education, policymakers should concentrate on reducing educational selection.
- Young people streamed into academic routes are more likely to work in professional or managerial roles than those who leave school early or are placed on vocational paths.
- Family background is strongly linked to attainment in education. Genetic inheritance plays a key role – in interaction with the environment – to influence educational attainment, but aspirations and hard work can make a difference.
- Children whose parents are graduates are more likely to go to prestigious universities than those of similar ability with non-graduate parents.
- Young people from lower socioeconomic backgrounds are likely to have been disproportionately affected by school closures during Covid-19.

### Contributing Projects

GEIGHEI  
HU CIAW  
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LIFETRACK  
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### Editors

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### About DIAL

*Dynamics of Inequality Across the Life-course (DIAL) is a multi-disciplinary research programme consisting of thirteen European projects. The projects examine the sources, structures and consequences of inequalities in contemporary societies. The programme is funded by NORFACE for the period 2017–2021.*

## Policy context

Educational inequalities are a key challenge to education systems across Europe and are linked to disadvantage, low participation rates in early childhood education, low parental educational level and lack of family support.

European policy<sup>1</sup> says education should enable all citizens to succeed and develop their potential according to their needs and irrespective of their backgrounds. Policy guidance suggests:

- School autonomy facilitates flexibility and autonomy
- Monitoring systems can track disadvantage and inform responses
- Early warning systems can detect children's problems and potential drop-outs
- A relatively high proportion of GDP should be allocated to education and training, targeting disadvantaged schools and individuals
- There should be equitable access to education and training
- Sensitive admissions policies can reduce school segregation
- Postponing the age of selection and increasing opportunities to change tracks can help.

## Selection

DIAL research on selectivity and inequality in education addressed some key questions:

- Is social background linked to the outcomes of selection in upper secondary education?
- Does the educational track on which we are placed in upper secondary education predict later success in education and work, potentially mitigating the effects of social origins?

One DIAL project<sup>2</sup> analysed associations between origin, education and destinations in Denmark, England, Finland, France, Germany, Israel, and Italy. It found clear links between selection and educational inequalities, but concluded simple distinctions between comprehensive and selective systems could mask specific country effects. Even in countries with comprehensive education systems, mechanisms existed which could perpetuate links between social origins and destinations. The strength of the association between selectivity and social background varied

between countries, but the role of selection was remarkably similar in all.

Related research<sup>3</sup> used cross-nationally comparative data from 32 countries to assess links between parental education and success in selective schooling systems. When the age of first selection was controlled for, it found educational attainment to be more strongly linked with parental education in highly ability-selective systems. So as a schooling system became more academically selective, it would also become more socially selective. As the age of first selection increased, the link between social background and educational attainment decreased.

## The effects of academic and vocational tracking

A special issue of the journal *Longitudinal and Life Course Studies*,<sup>4</sup> featuring DIAL research, focused on links between secondary school tracking and labour market outcomes. The editorial concluded academic tracks were connected to more favourable labour-market outcomes than vocational ones.

More specific results included:

- Results from Denmark, England, France and Italy which showed young people streamed into academic routes were considerably more likely to work in professional or managerial roles than those who left school or were placed on vocational paths.
- German results which found no evidence individuals from privileged backgrounds were less affected by being placed on lower tracks.
- Italian results which found no difference in employability between those on vocational and academic tracks, though those on the academic track gained advantages even if they did not go on to take a degree.
- Results from Israel which found secondary school selection affected both later education attainment and earnings. Students on the higher tracks were also more likely to go to degree level study and earn more at age 34.
- Finnish results which found pupils who chose advanced maths within general upper secondary achieved a higher socio-economic status than those who did not.

Bringing the results together, the research<sup>5</sup> found Germany, where selection took place early, had the most pronounced association between origins

and destinations, while Nordic countries which favoured inclusivity had the weakest.

But when country-specific factors were taken into account the role of selection in reproducing social inequalities remained remarkably similar across all countries. A separate piece of DIAL research from Germany<sup>6</sup> showed pupils on the upper track made more progress in reading and maths; an effect driven by average performance in the class and by social composition, but not by teaching quality or ethnic mix.

DIAL research<sup>7</sup> also looked at whether the educational track on which young people were placed as teenagers affected the development of personality traits. It found levels of conscientiousness grew among those who were placed in vocational education, especially if they were taking on an apprenticeship and learning a skilled trade.

A further study<sup>8</sup> looked at the long-term benefits and disadvantages of choosing a vocational rather than an academic track in upper secondary education and found the vocational option did not lead to lower earnings or income for students whose decisions were on the margin. For those who might otherwise leave school early, it offered protection from unskilled work and unemployment. The research concluded that for these students, choosing a vocational track had strong benefits and few drawbacks.

### Tracking, enjoyment and performance

Research in the UK<sup>9</sup> looked at how pupils' enjoyment of the subjects they studied was affected by the ability groups in which they were placed, and found those in a low ability group were less likely to enjoy Maths between the ages of 7 and 11.

In Italy,<sup>10</sup> researchers examined whether Italian students' choice of educational track had a causal effect on performance in general skills such as reading and mathematics, and found those on the academic route made better progress than those with similar early attainment on other routes.

### Inequalities in higher education enrolment

DIAL research from Finland<sup>11</sup> focused on how parental education affected children's chances of going to university in interaction with prior school

performance. It found students with good school grades were more likely to go to university if their parents had done so too. But students with similar grades whose parents had lower levels of education were more likely to go to more vocationally-oriented higher education institutions (polytechnics).

### Genetics and educational inequalities

DIAL research has also focused on the interplay between genetics, educational attainment and inequalities.

One study<sup>12</sup> analysed data from the US on 'polygenic scores,' which aggregate information on genetic variants strongly associated with educational achievement. The study found that genetics played an increasingly important role in educational attainment for more recent cohorts.

A second study<sup>13</sup> looked at how nature and nurture interacted in influencing individuals' academic attainment, and found support for the theory that early parental inputs were particularly effective for children with genetic advantages.

### Education and effort

Two pieces of DIAL research have addressed the extent to which learners' effort or aspiration affect outcomes and influence levels of educational inequality.

A study of secondary schools in rural Bangladesh<sup>14</sup> looked at the role of student effort in educational achievement and as a factor in overcoming disadvantage and inequality. Social determinism in education could be mitigated by individual effort, it found.

Research from Denmark<sup>15</sup> found young people from ethnic minority backgrounds tended to have high levels of aspiration and to be more likely to make ambitious academic choices.

But drop-out rates were also high among ethnic minority children who chose a vocational route, so there were no simple solutions. With support such as mentoring they could advance the cause of integration for future generations.

And a study in the Netherlands<sup>16</sup> found aggressive behaviour and emotional problems in early childhood were linked to academic attainment at the end of primary school. It found those children did less well, but the links all but disappeared

when the child's comorbid attention problems were taken into account.

## Covid-19 and education

Two studies looked at how the pandemic affected educational inequalities. The first, from the UK,<sup>17</sup> found better-off families were able to provide more of the resources children needed to develop and learn during lockdowns. As families assumed greater responsibility for educating their children, existing inequalities in home circumstances were likely to be exacerbated. Moreover, the equalising influence of schools could have been jeopardised by their closure and by lack of direction in virtual resources and support for parents and children.

However a study from Denmark<sup>18</sup> found in some respects students' wellbeing improved during the Spring 2020 lockdown – and the effect was strongest among those of lower socioeconomic status.

The results showed students were more likely during lockdown to report liking school; and school closures had no effect on reported levels of loneliness. The 2020 Spring lockdown seemed to have a more positive impact among students of lower educated mothers. However, the researchers concluded factors potentially leading to an increase in students' wellbeing – such as having more free time – could also lead to learning losses, which tended to be concentrated among students of lower socioeconomic status.

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