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Article

Negotiating the "Maze": SEN and the Transition From Lower Secondary Education in Austria

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Abstract
Austrian students with special educational needs (SEN) face many obstacles in the transition from lower to upper secondary education. Using administrative data from national statistics, we analyse the trajectories of these students focusing on two questions: First, what is the impact of the former setting on further pathways for students from special schools compared with mainstream schooling? Second, can low-threshold training or apprenticeship projects (the "transition system") compensate for educational disadvantages in former school careers and serve as a "second chance" or do they reinforce exclusionary practices by perpetuating "special tracks"? Regarding the first question, our research findings confirm those from several studies conducted in other German-speaking countries that show advantages for graduates from mainstream education compared to those from special schools, as they face a lower risk of institutional exclusion. In respect of the second question, at first glance, our findings differ from prior research results. Participating in the transition system is associated with a slight increase in participation in upper secondary education, some increase in employment, and an important reduction concerning inactivity. As revealed by a regression analysis controlling for socio-demographic characteristics, participation in this system has a distinct integrative influence. We conclude by hypothesising that this is due to the structure of the Austrian transition system offering pathways back to mainstream educational systems and formally recognised educational qualifications.

Keywords
Austria; educational trajectories; inclusion; mainstream education; special educational needs; special needs education; transition system

Issue
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1. Introduction

The transition from lower to upper secondary education presents Austrian students with special educational needs (SEN) with severe obstacles. From an inclusive perspective, the Austrian education system resembles a complex "maze" with a high level of segregation between educational tracks and groups of students, and with legal restrictions for graduates from special needs education (SNE). In addition, the differences at the regional and socio-demographic levels create unequal opportunities for navigating this maze. The share of students with SEN in Austria totalled 3.9% in 2016–2017 and varied from 3.1% in Styria and Tyrol to 5.7% in Vorarlberg, from 4.4% for German-speaking students in grade 8 (aged 14) to 8.4% for their non-German speaking peers. Mainstream schooling instead of enrolment in special schools or classes among these students was 55% in urban areas but 73% in rural areas of Austria (Oberwimmer et al., 2019, pp. 162–164). In Germany,

compared to children from privileged families, children from socio-economically disadvantaged families are more likely to attend special schools rather than mainstream education (Kocaj et al., 2014; Schmidt, 2017).

Inclusion, understood as enabling joint education and learning processes in the context of diversity (Köpfer et al., 2021) and different needs, among them SEN, is at first glance predominantly implemented in Austria. Enrolment in mainstream education is the most common track for students with SEN (61% in 2016–2017) and has intensified over the last decade. However, inclusive education cannot be reduced to the joint enrolment of students with and without SEN but must ensure that optimal participation is available for each student and discrimination avoided by any means (Feyerer, 2019, p. 66). The practice of joint enrolment of students is, in addition, limited to certain types of schools and levels, as will be shown in the next section, and therefore far from being a core element of the overall education system. Generally speaking, the multi-tracked Austrian system embodies a segregative orientation, featuring numerous special schools besides mainstream schooling (Feyerer, 2019). Bearing this in mind we use the terms "mainstream education" or "mainstream schooling" instead of "inclusive education" in our article when referring to the practice of students with and without SEN being enrolled together.

Students with SEN encounter particular obstacles during their transition period. This is evidenced in an average of 85% of graduates from SNE becoming early school leavers (Steiner et al., 2016, p. 191). Early school leaving means that at most they have a lower secondary school qualification and are not enrolled in any subsequent education or training. From the standpoint of the capability approach, early school leaving is linked to a loss in "effective opportunities to functionings that are necessary to participate in society" (Broderick, 2018, p. 31). Equality of access to all levels of education is a key element of the UN Convention of the Rights of People with Disabilities (UNCRPD) yet is not sufficiently provided for. However, our argument starts a step before the discussion relating to equal learning environments and equality of outcomes because it is already at the entry point to upper secondary education and the transition from school to work that students with SEN are particularly affected by exclusion.

This article is divided into eight sections. In Section 2, complexity, segregation, and formal restrictions are described as elements of the Austrian (special) education system. In Section 3, we present former research findings on the transition from lower to upper secondary education for students with SEN. In doing so, we refer to research from Austria, Germany, and Switzerland, as the setup of SNE is similar in those countries. We then outline the aim of our research, our research questions and the methodical design in Sections 4 and 5 before presenting the findings of our research in Sections 6 and 7, referring to particular questions and data in each section. Finally, we draw conclusions and discuss the limitations of our study as well as the potential for further research (Section 8).

2. The Austrian Context of Special Needs Education

The reference group in our article are students with SEN who, in many cases, but not necessarily, overlap with students with disabilities. On the one hand, the Austrian approach to SNE is narrow compared to more universal approaches that perceive disability as potentially affecting every human being or that entitle students to receive supporting measures without diagnosis as a precondition, like in Finland (Björk-Åman et al., 2021). In Austria, students are attributed SEN via an official notification, namely in the case that special educational provisions to facilitate their education are indispensable due to a permanent mental or physical disability (Republic of Austria, 2022, article 8). Such provision can involve tailored teaching materials or additional teaching staff. Hence, pupils with disabilities who are not ascribed any need of extra pedagogical support measures are not entitled to special education. On the other hand, the processes involved in attributing SEN are handled quite excessively when it comes to certain groups of students. While lacking German proficiency or learning difficulties must not justify SEN, an above-average proportion of migrants are attributed SEN status, and the same is true for boys (Bruneforth & Lassnigg, 2012, p. 88) as it is for students from disadvantaged social strata in other European countries (Dyson & Squires, 2016). The label SEN, aimed at providing more resources to facilitate their learning, bears the risk of becoming a stigma for the students concerned (Tschanz & Powell, 2020, p. 157). From the point of view of theories of social reproduction, one can argue that ascribing special needs in this context negatively sanctions a socially non-privileged habitus, among other social practices (Bourdieu & Passeron, 1973).

In 2018, roughly half of the students attributed SEN (3.9% of all students) were taught according to a SEN curriculum (1.8%), which in Austria is called "special school curriculum," although it is not restricted to students in special schools. The other half followed the mainstream curriculum. There are different "special school curricula" according to particular disabilities. In 2016–2017, 52% of the students were schooled according to a "general special school curriculum" aimed at students with "learning disabilities," 29% according to a curriculum for students with "extraordinary needs for support" due to complex or multiple disabilities, while curricula for different other disabilities account for only small numbers of children each year (Steiner et al., 2019, p. 233). A SEN curriculum can comprise all or only a part of the usual school subjects. The fact that it has been applied to a student is noted in the school leaving certificate (Republic of Austria, 2022, article 8). We will refer to this group as "students with a SEN curriculum" and put them at the centre of our analyses. This is firstly due to restrictions concerning the analysis of the educational trajectories

of pupils with SEN. The characteristic "special needs" is deleted in administrative longitudinal data sets for data protection reasons. Secondly, a school leaving certificate that points to "a special curriculum" can, and in fact does, lead to even higher barriers in the further course of education. It is therefore especially worthy of detailed investigation.

Starting from entry into primary education, students with SEN (and accordingly those with a SEN curriculum) can be enrolled either in special schools (segregated) or in any other school—primary schools and both the academic and general track in lower secondary education and prevocational schools (in mainstream education). The overall share of learners in mainstream education has risen slightly from 55% in 2006–2007 to 61% in 2016–2017. Yet differences between the lower secondary tracks are clear. Although the educational act refers to the "social integration" of children with disabilities in all lower secondary schools, mainstream schooling for students with SEN is limited to general secondary and prevocational schools and extremely rare in academic secondary schools.

Unlike in Nordic countries or in Germany where special needs support is explicitly provided in all upper secondary tracks, in Austria no reference is made to students with SEN in the respective regulations. A school leaving certificate of lower secondary education indicating a special school curriculum does not entitle graduates to access upper secondary schools. Graduates can be accepted based on a decision by the schools in question and their "goodwill" (Gitschthaler et al., 2021, p. 72). The situation is different for dual apprenticeship training, which is very popular in Austria. First, there are no legal requirements relating to entry to this track, although formal qualifications from lower secondary education are an important prerequisite. Second, there is a vocational education track targeted at students with special needs: An apprenticeship training scheme with an option to either extend the training period to acquire the full content of the professional profile (extendable apprenticeship), or to acquire a reduced professional profile (partial qualification). Apprentices in the expandable training scheme can achieve a regular upper secondary qualification, while partial qualification is not recognised at this level. For both schemes, personal assistance is offered throughout the training period, helping the apprentices to cope with learning or other difficulties, and training companies receive financial incentives. This scheme is not restricted to persons with previously recognised SEN. It also addresses young people who did not complete lower secondary education or who failed their final exams, young people with an officially recognised disability, and finally young people with personal difficulties that hamper them in attending regular apprenticeship training, although an official diagnosis must be provided. This track has increased in popularity since its introduction in 2004, accounting for 7.6% of all apprentices in 2019 (Dornmayr & Nowak, 2020, p. 81).

3. Earlier Research on the Transition From Lower Secondary Education

As shown in earlier research, students who graduate from SNE meet distinctive obstacles in their transition to upper secondary education. First, they meet formal barriers since a certificate indicating a special school curriculum does not formally entitle participation in upper secondary school education. In Germany, only a small share of students in special schools receive a formally recognised qualification (Blanck, 2020; Pfahl & Powell, 2010). Among graduates from special schools focused on "learning difficulties," integration into further vocational education or training differs remarkably according to whether they have gained a fully recognised qualification at the lower secondary education level. Graduates holding a school leaving certificate from a general secondary school (*Hauptschule*) participate in the VET system more often compared to their peers who left school without such a certificate, and they show a NEET status (i.e., are not in education, employment, transitions system, or registered unemployment) to a less extent (Menze et al., 2021). Second, at the institutional level, graduates are confronted with contradictory norms and have to cope with them: The stigmatising label "special educational needs" guided their former routes throughout education on the one hand. On the other hand, they have to prove themselves ready for competition and achievement to succeed during further education or in the transition from school to work (Blanck, 2020; Schmidt, 2017; Tschanz & Powell, 2020). Third, they are confronted with a bundle of typically low expectations regarding their ability to continue education. Low expectations prevail among actors in school and guidance services as well as among parents (Fasching, 2013). Students in special schools are more likely to be recommended sheltered workshops and less likely to be recommended work placements by career guidance staff (Fasching, 2017; Ginnold, 2009). What is more, students develop deficit-oriented self-conceptions as an outcome of the biographical experience of incorporating (learning) disabilities (Pfahl, 2011). Fourth, researchers show less progress in learning in special schools compared to students integrated into mainstream education, with the majority of studies confirming this result (e.g., Kocaj et al., 2014). Fifth, the role of structures aimed at supporting the transition of disadvantaged school graduates into formal education or employment is strongly challenged by research. Here again, if participation in respective low-threshold projects (e.g., vocational preparation schemes) is associated with stigmatising labels without the chance of gaining a formally recognised qualification, it constitutes further reinforcement of exclusion rather than supporting the transition (Pfahl & Powell, 2010; Schmidt, 2017). Continuing segregation once more leads to the same obstacles being encountered during the next transition. However, the outcomes depend on the setup of the projects in question. Training on the job

that enables the acquisition of skills and knowledge in a meaningful context, like company-based training, has proved to foster routes into further education (Ginnold, 2009; Podlesch, 2009).

Transition points within educational systems have long been identified in sociological research as paramount drivers of inequalities between students (e.g., Blossfeld et al., 2019). Hence, students with SEN can be perceived as a point case in this discourse, both in terms of quantity and qualitative aspects. Still, when it comes to transitions, inequality, and SEN in Austria, research remains scarce. It is this gap we aim to fill to a certain degree.

4. The Aim of Our Research and Questions

We aim to explore in detail the transition from lower to upper secondary education of students with a SEN curriculum. Using administrative data from official statistics, we can provide insights into the transition of the whole cohort. Our contribution seeks to add to national research on graduates with special needs based on surveys (Fasching, 2013). One advantage of using administrative data is the avoidance of selection bias that can affect surveys. Another goal is to gain insights into the situation in Austria as comprehensive studies on the educational trajectories of students with SEN are currently lacking. Thereby we focus on two questions:

1. What is the impact of the former setting for graduates from special schools as opposed to those who were integrated into mainstream schooling on their risk of being excluded from further education, employment, and support structures?
2. Can low-threshold projects in preparation for entry to further education or employment compensate for educational disadvantages in former school careers and serve as a "second chance" or, on the contrary, do they reinforce exclusionary practices?

5. Data and Methods

Our analyses build on administrative data from school, employment and other statistics provided by Statistik Austria. For our first research question, we used the monitoring of education-related employment behaviour ("BibEr") which links data on school careers and transition into employment for the whole cohort of graduates since 2008 (Statistik Austria, n.d.). For the second research question, we use a register-dataset which combines (among others) educational and employment data as well as data from the public employment service (AMS) and the social ministry service (SMS). Both datasets shed light on the question of whether students during their transition from lower to upper secondary education are enrolled in further education, if they participate in support structures, or are employed or unemployed at certain reference dates. Despite the advantages of using highly reliable administrative data, there are also limitations. No information on the socio-economic status of students is collected in these statistics and therefore analysis of social inequality is possible only in terms of gender and migration background. Furthermore, limitations arise due to data protection reasons. The question concerning the impact of the former setting—mainstream education vs. special school enrolment—will thus be answered descriptively because only aggregated rather than individual data is available. As the dataset for analysing the impact of low-threshold projects provides individual information, it enabled the performance of regression analyses. Since students from SNE are likely to graduate from lower secondary education when older than their peers without SEN (Fasching, 2013), and we preferably want to explore the trajectories of the whole cohort, both analyses refer to students aged 13 and above. In the first case, all students aged 13 to 18 years who either graduated or dropped out of education at the end of lower secondary education are included to maximise the number of cases (n = 18,065). In the second case, we refer to graduates and dropouts from SNE aged 14–23 years (n = 34,258). Therefore, the time elapsed since termination of lower secondary education varies to some extent, which is a limitation of this source.

6. Impact of the Former Setting

To answer the first question, we build on data on students for whom a SEN curriculum (named "special school curriculum" in Austria) was drawn up at the end of compulsory education and who graduated or dropped out between 2008–2009 and 2016–2017. As seen in Table 1, after 24 months, almost all have left lower secondary education. With shares of around 3% in upper secondary schools, this track is extremely rare, whereas a higher share of 20% continue their career via dual apprenticeship training. Participation in the transition system (13%) means being enrolled in training courses organised by employment agencies, courses within adult education, or low-threshold projects offered, for example, by factory schools. Employment and registered unemployment are not very common options for these young people with shares of 7% in both cases.

All in all, what is evident is that a major proportion of students from SNE, that is 47%, neither participates in any form of education or training or employment nor uses support structures provided by employment agencies, etc. We use the term NEETs to capture this group, knowing that it differs from the official definition that does not include registered unemployed persons. In doing so we refer to a group that is excluded from most of the available institutions for young people in transition, meaning they are subject to a certain level of social exclusion. As prior research shows, it can be confirmed using empirical evidence for the whole cohort

Table 1. Transition routes of students with a SEN curriculum 24 months after graduation or dropping out.

	Absolute numbers	Relative numbers
Formal and non-formal education	7,051	39.0%
lower secondary education	*494*	*2.7%*
upper secondary schools	*586*	*3.2%*
apprenticeship training	*3,656*	*20.2%*
transition system	*2,315*	*12.8%*
Employment	1,257	7.0%
Unemployment	1,307	7.2%
NEET status	8,450	46.8%
Total	18,065	100.0%

Source: Statistik Austria (2021, 13–18 years old).

that exclusion in the transition from compulsory school upwards is massive for students from SNE.

A closer look at the differences in the share of NEETs (see Table 2) indicates that it is higher for graduates (49%) than for dropouts (44%). A school leaving certificate that indicates a special needs curriculum may thus act as a negative sign when it comes to the further school career, more than the fact of having dropped out. Boys, who are assigned SEN much more often than girls, are however better off when it comes to transition: The risk of exclusion amounts to 44% among male students and 51% among female students. The same is true regarding migration background: Students who speak German as a first language have a higher share of NEET (49%) than students speaking another language (42%), the latter being enrolled in SNE above average.

As evident from Table 2, the former setting plays a crucial role: Those who were enrolled in mainstream education at the end of compulsory education have a much lower risk of exclusion (28%) when compared to former students from special schools (51%). Noteworthy, enrolment in a special school predominates at this transition point with 14,440 students, whereas only 3,625 are integrated in mainstream education. The total differences between students from special schools and those in mainstream schooling are the most pronounced. However, this finding deserves some caution as the chance of enrolling in either setting differs between socio-demographic groups. As seen in Table 3, mainstream schooling has been more prevalent for dropouts than for graduates and the share is also elevated for female students with a migration background.

Accordingly, in a final step, odds-ratios are calculated for each of the groups illustrating the relative risk of students from mainstream education compared to their peers from special schools of becoming NEET (see Figure 1).

Figure 1 shows the relative risk for a NEET status among learners from mainstream schooling compared to those from special schools. Hence, lower rates indicate a comparatively lower risk of becoming NEET. Overall, if learners have been integrated into mainstream schooling before graduation or drop out, their risk is reduced to 55%. The ratios are alike for every one of the groups, although levels vary. The most pronounced odds-ratios can be found in favour of dropouts, irrespective of gender and language. Patterns for students with German as a first language and non-German speaking students are

Table 2. Transition routes into NEET status according to different characteristics.

	n	NEET status
Graduates	10,108	49.2%
Dropouts	7,957	43.7%
Male	11,426	44.1%
Female	6,639	51.3%
German language	13,107	48.8%
Other language	4,958	41.5%
Former setting: mainstream education	3,625	28.3%
Former setting: special school	14,440	51.4%
Total	18,065	46.8%

Source: Statistik Austria (2021, 13–18 years old).

Table 3. Share of students enrolled in a special school vs. mainstream education.

	n	special school	mainstream education
Graduates			
Male German lang.	*4,632*	*86.1%*	*13.9%*
Male other lang.	*1,639*	*87.0%*	*13.0%*
Female German lang.	*2,871*	*85.2%*	*14.8%*
Female other lang.	*966*	*82.9%*	*17.1%*
Dropouts			
Male German lang.	*3,668*	*74.2%*	*25.8%*
Male other lang.	*1,487*	*74.0%*	*26.0%*
Female German lang.	*1,936*	*70.7%*	*29.3%*
Female other lang.	*866*	*67.9%*	*32.1%*
Total	18,065	79.9%	20.1%

Source: Statistik Austria (2021, 13–18 years old).

quite similar with slightly more pronounced odds-ratios among male students speaking a first language other than German. For females, the differences in exclusion for graduates according to the former setting are smaller compared to their male peers. Thus, even if the analyses of the transition are related to highly differentiated groups, former mainstream schooling decreases the risk of exclusion.

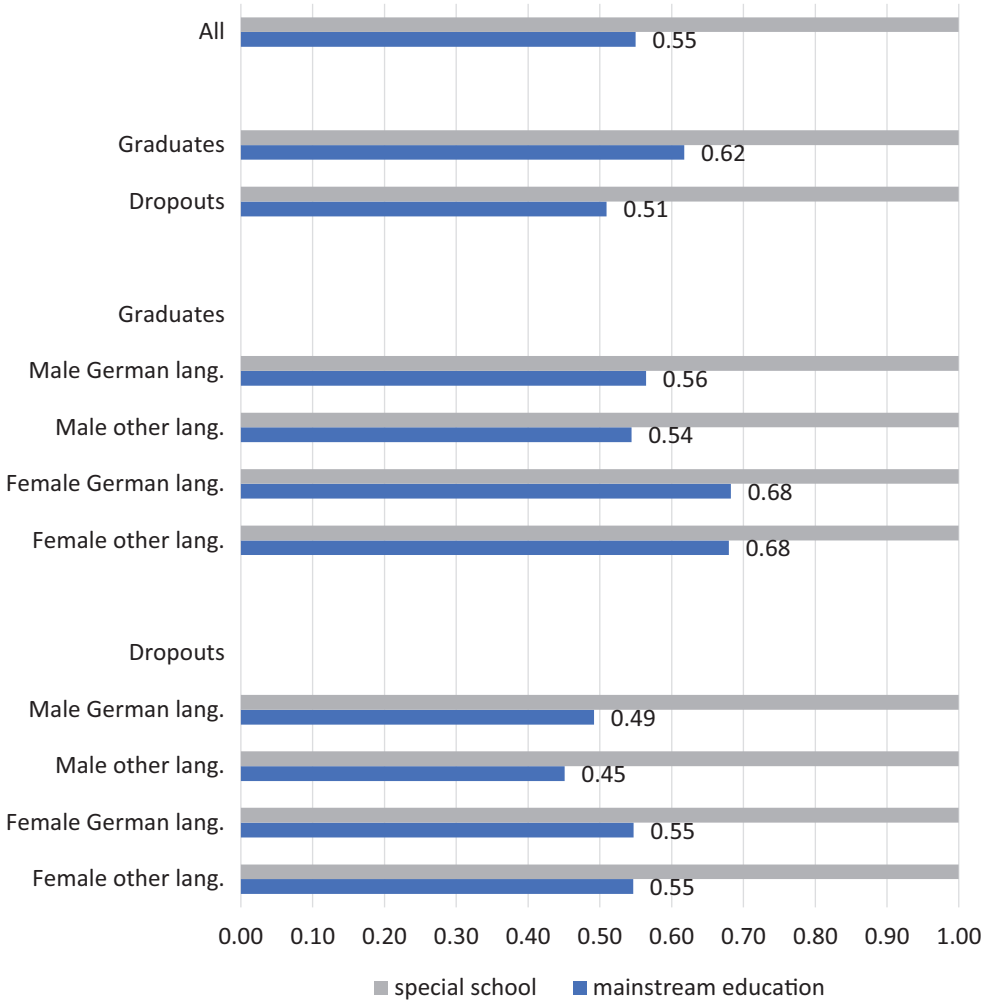

Figure 1. Odds-ratios for becoming NEET according to the former setting (n = 18,065). Source: Statistik Austria (2021, 13–18 years olds).

7. Impact of Transition Support Structures

After graduation from compulsory education with a SEN curriculum, trajectories diversify. Some students will move on and participate in low-threshold projects preparing them for further education or employment. We investigate if these projects compensate for educational disadvantages in former school careers or, on the contrary, if they reinforce exclusionary practices as they perpetuate "special tracks" that are not recognised in the formal system.

To do so we used a register-based dataset as previously described and included 34,258 people aged 14 to 23 years whose last educational achievement had been graduation or dropping out from education with a SEN curriculum during the period 2014–2018. The cohort here is older than the one discussed above. 3,287 of them attended low-threshold projects in the first half of our two-year observation period and 30,971 did not. We compare the development of the trajectories of both groups. The results differ from those reported in Table 1 due to a different age cohort (14–23 vs. 13–18 years in Table 1) and to a different definition of sub-groups (here we provide figures for participants in the transition system and non-participants whereas we focused on the group as a whole in Table 1).

As can be seen in Table 4, 24 months after the reference date (1st of July) the proportion of persons still in the transition system among participants declined to 22.5%. Hence, people are not "stuck" in the transition system. Nearly 32% of them moved on to a status of complete (labour market) inactivity since they only appear on the Austrian mandatory residence register, which means they do not show any other status or involvement in (supportive) structures. Another 10% can be referred to as out-of-labour-force (OLF) since they are retired, on maternity leave, etc. Both groups together can be referred to as NEETs. Roughly 14% were employed two years after the reference date, which is similar to the percentage reported as unemployed; 7.8% were completing an apprenticeship, thus in combination with those in formal school education and in the transition system, 31% were involved in formal or non-formal education or training.

Comparison to a reference group enables better interpretation of these results. Graduates and dropouts with a SEN curriculum who have not participated in the transition system in the first half of our two-year observation period served as the reference group to those attending the transition system. Among non-participants, a majority (54.4%) only appear on the Austrian mandatory residence register and, additionally, nearly 14% can be referred to as out of labour force. As shown in Table 4 compared to the reference group, students who participated in the transition system showed more integrative trajectories.

Among the participants, the share of those appearing only in the mandatory residence register after 24 months declines by 22.8% points. As a first result, we interpret that participating in the transition system seems to have an enormous activating effect. This result is supported by a decrease of 4.3% points in OLF status. Involvement in the transition system rises by nearly 15% points, apprenticeships by 5% points, which means that integration in education or training is 20% points up for those who have participated in the transition system compared to those who have not. Employment rises only marginally, unemployment by 7.2% points. This last result also indicates a form of integration since registered unemployment signals readiness to enter the labour market and is linked to tailored support. Overall, our descriptive results suggest that attending low-threshold projects in the transition system has a positive influence on further career paths of students with SEN.

In a second step, we now try to prove these descriptive results by conducting regression analyses using the same dataset as before but focusing only on data from 2018. We aim to explain integration in education or employment 24 months after the reference date. The status "education" combines participation in formal school education, apprenticeship or the transition system. Variables used to explain this integration include socioeconomic ones and personal characteristics (gender, age, migrant background, living in a big city) on

Table 4. Trajectories of students who participated in the transition system compared to non-participants, 24 months after the reference date (n = 34,258).

	Trajectories of participants	Trajectories of non-participants
Only mandatory residence register	31.6%	54.4%
Formal school education	0.8%	0.8%
Apprenticeship	7.8%	2.9%
Transition system	22.5%	7.9%
Employed	13.5%	13.1%
Unemployed	14.1%	6.9%
Other/OLF	9.6%	13.9%
n	3,287	30,971

Source: Statistik Austria (2020, 14–23 years old).

the one hand as well as intervening variables (participation in transition system and/or youth coaching) on the other. Youth coaching is a supportive measure aimed at impeding early school leaving or reintegrating early school leavers in education and training via tailored guidance and case management.

In model 1 we focus on personal/socio-economic variables to explain integration in education or employment. By doing so, they all show a significant impact, as seen in Table 5.

Young graduates/dropouts with a SEN curriculum who do not live in a bigger city (more than 50,000 inhabitants) but in a more rural area have greater chances of integration (odds-ratio 1.247) 24 months after the reference date. The same is true for young males whose chance of integration is 30.2% higher than that of young females. We also find increasing difficulties for integration with growing age (15.8% decreasing chance for integration per year of age, odds-ratio 0.842). We noted what is at first glance a rather surprising result concerning migration background (meaning both parents were born abroad). Young people without a migration background face higher obstacles for integration (odds-ratio 0.783) than those with. Their chance of integration is 27.7% higher than that of young people without a migration background. This, in part, is due to a higher level of integration into the labour market. Our hypothesis for this surprising result is based on discriminating recruiting practices relating to education with a SEN curriculum for pupils with a migration background. The result of this practice might be, for example, that pupils with a migration background are entitled to SEN and educated according to SEN curricula only due to lacking German-language proficiency and without any disability. Therefore, we suggest that among migrant students with the respective curriculum, there may in fact be a considerable share of pupils without a genuine indication for SEN. Since, compared to their colleagues without migration background, many of them do not suffer from disabilities, this increases their chance of integration.

The variance explained in model 1 (Nagelkerke R^2 = 0.062) rises considerably in model 2 (Nagelkerke R^2 = 0.102) when we introduce another variable to explain integration in our logistic regression. The new variable is participation in the transition system. Whereas all the other variables discussed largely remain the same in explaining power and direction of influence, participation in the transition system shows a major impact on the chance of integration. If young people with a SEN curriculum background do not participate in the transition system within the observation period, their chance of integration is only 39% of that for students who did participate. Vice versa: participating in the transition system increases the chance of integration by 256.4% (1/0.390).

In model 3 we introduce participating in youth coaching, which is, as mentioned above, a programme for early school leavers and pupils at risk of leaving school early, as an additional intervention variable. Participation in youth coaching also proves to be significant and highly influential although it does not show the same level of impact as participation in the transition system. For the young people who were not participating in youth coaching, their chance of integration is 72.4% compared to those who did participate. Variance explained improves slightly in model 3 (Nagelkerke R^2 = 0.105).

In summary, the regression analyses confirmed the descriptive results. Even when we control for age, gender, migration background and place of residence, we find participation in the transition system to have a strong positive and significant influence on integration in education or employment.

Table 5. Logistic regression models explaining integration in education or employment 24 months later (n = 7,340).

	Model 1			Model 2			Model 3		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Constant	2.277	0.218	9.744 ***	2.227	0.221	9.275 ***	2.350	0.24	10.490 ***
Living in bigger city: no	0.221	0.055	1.247 ***	0.271	0.056	1.311 ***	0.279	0.056	1.322 ***
Sex: male	0.264	0.055	1.302 ***	0.264	0.056	1.302 ***	0.265	0.056	1.303 ***
Age	−0.172	0.011	0.842 ***	−0.134	0.011	0.874 ***	−0.127	0.012	0.881 ***
Migrant background: no	−0.245	0.058	0.783 ***	−0.219	0.059	0.804 ***	−0.216	0.059	0.806 ***
Participation in transition system: no				−0.941	0.063	0.390 ***	−0.921	0.063	0.398 ***
Participation in youth coaching: no							−0.322	0.090	0.724 ***
Nagelkerke R^2	0.062			0.102			0.105		

Note: ***p < 0.001. Source: Statistik Austria (2020, 14–23 years old).

8. Conclusion, Discussion, and Future Research Potential

Coming back to our two research questions, first of all, our findings on the impact of the former setting on the further careers—enrolment in special schools vs. mainstream schooling—are in line with several studies conducted in Austria, Germany and Switzerland. In a nutshell, our results show that graduates who were previously integrated into mainstream education have an advantage: Their risk of exclusion from further education, training, employment, or support structures is reduced to 55% compared to graduates from special schools. Longitudinal research shows that this is also true after controlling for potentially relevant facts like gender, nationality, socio-economic background, performance at school or abilities (Haeberlin et al., 2011; Sahli Lozano, 2012). In our study, this finding shows up again when comparing students by gender and migration background.

Our second question addressed the impact of the transition system: Does it compensate for disadvantages or reinforce exclusion? At first glance, our findings contradict results from former studies (Pfahl & Powell, 2010; Schmidt, 2017). We found increased chances of integration in education or employment for young people participating in the transition system rather than an increased risk of exclusion. We hypothesise that this "contradictory" result is due to the structure of the transition system in Austria. It is not as strictly institutionalised as is the case, for example, in Germany where it forms a third column beneath the apprenticeship system and school education at the upper secondary level. This facilitates more flexibility, reduces stigmatisation, and lock-in effects. Besides, the subsidised cross-company apprenticeship training scheme plays a crucial role in the Austrian transition system. It aims to foster pathways into "regular" apprenticeship training or leads to a formally recognised qualification at the upper secondary level by itself. At this point, our results again align with other studies pointing to the beneficial effect of training on the job that enables the acquisition of skills and knowledge in a meaningful context for students' trajectories (Ginnold, 2009; Podlesch, 2009).

In addition to these contributions to the academic discourse, our research also has some limitations. First, despite its advantages, administrative data is restricted in terms of information on social background. Second, our analyses only captured a short period. We can neither draw conclusions about longer-term educational attainment nor about obstacles that may arise in a subsequent transition. Research that applies a more longitudinal perspective, based on both biographical research and quantitative research using register data covering whole careers, would allow such limitations to be overcome and would be necessary also given the scarce research on students with SEN in Austria. Overall, the share of NEETs among former students with a SEN curriculum is enormous. This indicates a worrying tendency towards exclusion at a very young age. Access for all, to all levels of education, as laid down in the UNCRPD, is currently far from being realised in Austria.

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Conflict of Interests

The authors declare no conflict of interest.

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