

3 Pre-employment interventions

This chapter provides an overview of pre-employment policies and interventions targeted at adolescent students. It discusses the potential impact of mid-teens participating in pre-employment interventions (like career education, career counselling and guidance, and employer engagement activities) on the likelihood that they will later experience periods of being not in employment, education or training (NEET). For each of the pre-employment policy areas, the chapter briefly outlines the availability of interventions in Australia, the existing empirical evidence on the link to NEET status, and illustrative examples from OECD countries.

Adolescents aged 12 to 16 are still in school and hopefully will remain there for a few additional years. Nevertheless, getting them to think about their career interests can be potentially beneficial for a number of reasons. First, once they reach upper secondary school, they have the opportunity to specialise, meaning that it would be desirable if students had a general idea of the career paths that might interest them. Second, even when comparing students that have similar school or standardised test performance results in their mid-teens, students who have more ambitious career aspirations are more likely to fulfil these later in life (OECD, 2018^[1]; Schoon, 2001^[2]; Sikora and Saha, 2011^[3]). Being able to name a job expected at age 30 and having those plans align with their educational plans are likewise associated with positive later employment outcomes (Covacevich et al., 2021^[4]; Thomson and Hillmann, 2019^[5]). Helping students set realistic yet ambitious goals can therefore have real-life impacts, in particular for disadvantaged students whose goals are often not as ambitious as their academic potential (as measured through standardised tests) suggest they could be. Given that the range of possible occupations is expanding while the occupations teenagers state they are interested in are narrowing in some OECD countries (Mann et al., 2020^[6]), and that around a quarter of students both in Australia and across the OECD are expected to work in occupations projected to decline (OECD, 2021^[7]), pre-employment interventions that make students more familiar with different jobs and that can allow them to connect how they perform at school to later education and job opportunities appear warranted. Third, students with a more clearly defined idea about their later goals may be more engaged at school than others (Chung et al., 2022^[8]), positively affecting their school performance and reducing the risk of dropout.

This chapter provides an overview of policies concerning three types of pre-employment interventions: career education, career counselling and guidance, and employer engagement. Moreover, it discusses how pre-employment interventions can be embedded in the wider community and strengthen social inclusion along with improving education- and work-related outcomes. Paid employment, in the form of part-time or summer work, can be another way for young people to gain first experiences with the world of work. Since finding a part-time job is a personal or family decision rather than driven by any official policy other than relevant child labour protection laws and tax rules, the evidence on the link between paid employment while being a young student and the likelihood of being not in employment, education or training (NEET) later on is discussed in Box 3.1.

Box 3.1. The link between paid employment in younger teens and later NEET outcomes

In Australia, about half of 15-year-old students work outside of school hours to earn money. This is considerably higher than the average across OECD countries, where about four in ten 15-year-olds work outside of school hours to earn money.

The impact of a part-time job during the school year or working during the summer vacation on the probability of becoming NEET could arguably be positive or negative, but empirical evidence suggests that work experience lowers the NEET risk. On the one hand, if paid work distracts students from their schoolwork, they may do worse at school and in the worst case do not complete their upper secondary and therefore be more likely to not continue post-secondary education. On the other hand, part-time jobs may allow students to learn more about the world of work and, most importantly, about what type of work they enjoy, or, equally importantly, do not enjoy. This experience could ease students' entry into the full-time labour market and increase their motivation to seek out appropriate educational options. An added confounding difficulty in evaluating the impact of paid employment is that students who work part-time or over the summer may have different characteristics than those who do not. In many countries, students from more disadvantaged educational backgrounds are more likely to work part-time, but in other countries such as Scotland, this is not true. In the Scottish case, there was also no difference in terms of the academic performance of working and non-working students.

Turning to the empirical evidence, Mann, Denis and Percy (2020^[9]) find a largely positive association between having paid employment while at school and later-in-life employment outcomes in 14 out of the 17 studies with available data. Four studies on Australia from the late 1990s to the early 2010s found a positive association between working while at school and employment in the late teens to early twenties. Similarly, two studies on the United Kingdom found an association between teenage employment and lower later NEET rates; with up a halving of the NEET rate among 16-18 year-olds who worked prior to age 16 compared to those who did not.

Note: The evidence presented in this box is based on the Mann, Denis and Percy working paper.

Source: Mann, Denis and Percy (2020^[9]), "Career Ready? How Schools can better prepare young people for working life in the era of COVID-19", <https://doi.org/10.1787/e1503534-en>.

3.1. Career education

For the purposes of this report, career education is defined to encompass classroom activities or programmes adopted by schools or teachers that are intended to prepare students for their entry into the labour market. For younger students in particular, it may simply involve teachers talking about the real-world application of certain parts of a lesson. They can also take the form of career-planning courses for students, the development of practical job-seeking skills, specific in-class activities such as career simulations or field trips to workplaces, or internships. Career education can occur in stand-alone courses or be integrated into other subjects. Career education and career counselling, which is discussed in the following section 3.2, are intimately linked. While career education allows students to discover different career options and explore their interests, career counselling through group or one-on-one sessions offers more individualised advice and guidance. School-based career counsellors can provide both general career education as well as career guidance. Career education often leverages contacts with employers and people in work, as discussed in section 3.3.

3.1.1. Career education in Australia and across the OECD

The current national career education strategy in Australia, Future Ready, was developed in 2019 and builds upon the 2013 National Career Development Strategy. It is aimed at building student's career orientation skills through a variety of measures. These include providing training to teachers and school leadership on career education; providing input to parents on how they can shape conversations about career options with their children; and strengthening school-employer interactions. The strategy sets very broad objectives for state governments, schools and employers to support high quality career education for school students, but schools decide on their own strategies (DESE, 2019^[10]). The strategy is intended to complement the Australian curriculum. On the website of the Australian Curriculum, Assessment and Reporting Authority (Australian Curriculum, n.d.^[11]), schools can access illustrations of good practices on career education. The National Career Institute's Blueprint for Career Development moreover provides a framework for developing and implementation career development activities for people of all ages, starting with young children (National Careers Institute, n.d.^[12]).

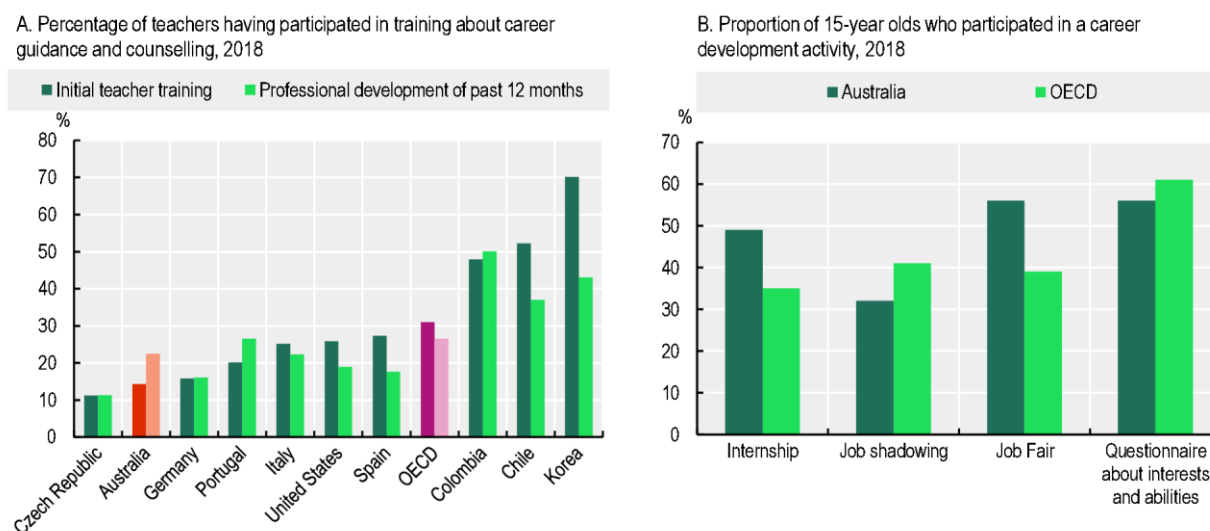
The national strategy is complemented by strategies and interventions at the state and local level. As explained in more detail in Chapter 2, States and Territories are responsible for providing schooling, and accordingly also for their curriculum (in line with national curriculum standards). A recent article by Groves et al. (2021^[13]) notes that the framework for career education in Australia is "fragmented and ineffectual". Moreover, even within the same state, there can be wide variations in the time devoted to career education. For example, an analysis of career education in Victoria found that the range of hours of career education per student and year ranged from less than one to 12 hours, with the median at two hours. Moreover, the

evaluation found that more than 80% of career education hours are directed at students in year 10 and up, leaving less than 20% for the younger age group (dandolopartners, 2017_[14]). Overall, access to career information can vary by the socio-economic composition of the student body and the background of individual students in Australia (Groves et al., 2021_[13]; NCSEHE, n.d._[15]).

Little is known about how frequently teachers integrate career education organically into regular lessons rather than into lessons exclusively devoted to career education. The Programme for International Student Assessment (PISA) survey does not directly question participating students or teachers about this, but it does ask teachers whether their initial or continuous teacher training covered career guidance and counselling as a topic. In 2018, around one in seven teachers in Australia had received any training in student career guidance during their initial teacher training, the second lowest share among the ten countries with available data (Figure 3.1, Panel A). A higher proportion of teachers had received training on the topic in the course of the prior 12 months' professional development activities, but the share remains below the OECD average and well below the share in Chile, Colombia and Korea (see also Musset and Mytna Kurekova (2018_[16]) on similar results for 2015).

Students, on the other hand, participate more frequently in several career development activities in Australia than on average in the 18 OECD countries that participated in the 2018 PISA survey. In particular, a higher share of students in Australia than the OECD average had completed an internship or attended a job fair. However, slightly fewer Australian students than overall OECD students had had the opportunity to shadow someone on their job/visit a workplace, or to fill out a questionnaire about their interests and abilities (Figure 3.1, Panel B). A few national data sources, some of which are now quite outdated, contained questions about whether students had talked to teachers about their career plans or future. In Australia, 59% said yes ("about their career plans"), compared to 36% in Canada ("to get information about work they may be interested in") and 64% in the United Kingdom ("an individual conversation regarding their future") (Covacevich et al., 2021_[17]).

Figure 3.1. Despite relatively few teachers in Australia having received training in career guidance, an above-average share of Australian students have participated in career development activities



Note: Panel A: The OECD average refers to the ten OECD countries in which the questions on teacher training on career guidance and counselling were administered. Panel B: The OECD average refers to the 18 OECD countries that participated in the 2018 PISA survey.
 Source: Mann, Denis and Percy (2020_[9]), "Career ready? How schools can better prepare young people for working life in the era of COVID-19", <https://doi.org/10.1787/e1503534-en>, and the OECD PISA 2018 Database, <https://www.oecd.org/pisa/data/2018database/>.

3.1.2. Existing evidence on the impact of career education on NEET outcomes

Historically, the evidence on the impact of career education on later NEET outcomes has been scarce. Reviewing international literature, (Hughes et al., 2016^[18]; Mann, Denis and Percy, 2020^[9]) highlighted the lack of experimental and quasi-experimental data in the field. In the context of the OECD Career Readiness project, which seeks to provide evidence-based advice to governments, schools and other stakeholders on how to prepare young people for the transition to the labour market, OECD education specialists carried out a review on the impact of career education and guidance activities on education and employment outcomes. In particular, they reviewed longitudinal datasets in ten countries, including Australia. Such datasets typically ask students around age 15 to confirm whether they had participated in a range of different career development activities. Commonly, ten years later, the studies return to the same young people and collect data about their economic status, earnings (if in work) and levels of job satisfaction. Table 3.1 provides an overview of the evidence of the impact of career education activities on NEET status during the later teenage or mid-twenties years. Some found that participation in these activities was associated with lower NEET prevalence, while others found no statistically significant impacts. In most cases, the reductions in the likelihood were relatively modest. The identified studies did not disaggregate the impacts for different groups of students, and thus do not provide evidence on how the policies affect young people at higher risk of marginalisation more particularly.

Table 3.1. Selected studies on the association of career education and later NEET outcomes

| Intervention and country | Study | Evaluation methodology | Evaluation outcomes |
|---|---|--|---|
| Teachers talking to students about future studies <i>United Kingdom</i> | Mann, Kashfepakdel and Rehill (2017 ^[19]), <i>Indicators of successful transition: Teenage attitudes and experiences related to the world of work</i> | Quantitative longitudinal: Logistic regression of NEET status at age 19-20 on interactions with teachers and control variables including socio-economic background, academic ability, learning environment and demographic characteristics; based on the Longitudinal Study of young People in England for the 1989-90 cohort (13-14 in 2004; 19-20 in 2009) | Teenagers who had talked to a teacher about their future studies at least once inside/outside of lessons were 24% and 13% less likely, respectively, to be NEET at age 19-20 than comparable peers. |
| Talking to a teacher about their future/work they might be interested in <i>Canada, the United Kingdom</i> | Covacevich et al. (2021 ^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries" | Quantitative longitudinal: Logistic regression of NEET status at age 25/26 on indicator of whether student had talked to a teacher by age 15 and control variables including gender, socio-economic status and academic performance. | Teenagers who had talked to a teacher about work they might be interested in were 3 percentage points less likely to be NEET at age 25-26 than comparable young people in Canada. In the United Kingdom no statistically significant association was found. |
| Students participating in career education class <i>Canada, Germany, the United Kingdom, Uruguay</i> | Covacevich et al. (2021 ^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries" | Quantitative longitudinal: Logistic regression of NEET status at age 25/26 on indicator of whether student had participated in a career education class by age 15 and control variables including gender, socio-economic status and academic performance. | In Canada, students who participated in a career education class were 3 percentage points less likely to be NEET a decade later. In Germany, the United Kingdom and Uruguay, no statistically significant association was found. |

| Intervention and country | Study | Evaluation methodology | Evaluation outcomes |
|--|--|------------------------|--|
| Filling out a skills and interest questionnaire Canada, Germany | Covacevich et al. (2021 ^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries" | See above | Teenagers who filled out a questionnaire by age 15 were 4 percentage points less likely to be NEET at age 25 in Canada. No significant association in Germany. |

Source: Based on Covacevich et al. (2021^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries", <https://doi.org/10.1787/cec854f8-en>.

3.1.3. Data and methodological difficulties contribute to a paucity of empirical evidence on the impacts of career education.

First, there are relatively few data sources that contain information about whether an individual had benefitted from career education during their early teenage years and about their educational enrolment and employment status at a later point in time. This means that the impact of career education policies on NEET outcomes can only be studied for a few countries and periods. Even in situations where longitudinal data are available, the NEET status itself may not always be confirmed, leading to difficulties in estimating a causal impact. For example, a recent study of the impact of English schools fulfilling the Gatsby Benchmarks of good career guidance (which include activities such as providing access to information, employer engagement and personal career counselling) on outcomes after leaving year 11 found a positive impact on students leaving into a sustained destination in employment, education or training. However, the contrary – that fulfilment of the benchmarks was associated with reduced NEET rates – could not be proven, possibly because some students' destinations could not be traced (Percy and Tanner, 2021^[20]).

Second, even for countries in which such data sources are available, they suffer from a number of inherent shortcomings. In particular, the data sources – which often rely on the PISA study for the initial measurement of career education activities – do little to measure quality and intensity of these activities. Career education activities that are integrated into regular classes are unlikely to be captured by any of the available variables. Career development programmes delivered by schools assume a cumulative benefit for students. Data analysis has to date only been able to focus on statistical relationships between participation in individual career development activities or attitudes as recorded by participants and later employment outcomes. The data are also inevitably old, meaning that evidence on any new career education activities is not available. Finally, it is also rarely known whether a student was required to undertake the career education activity, volunteered to participate or was selected to participate, meaning that here can be a selection bias: more motivated students may be more likely to participate in a voluntary activity, leading to an over-estimation of the association between participation in career education and reductions in the likelihood of becoming NEET. In contrast, if students were selected into the activity for example because of poor grades, the association between participation and later NEET status could be under-estimated. The studies mentioned in Table 3.1 aimed to account for factors which might distort findings by controlling statistically for characteristics which are most confidently associated with post-secondary employment and education outcomes, notably academic achievement, gender and social background. Nevertheless, these adjustments cannot overcome all of the inherent weaknesses. Given these difficulties, the lack of clear empirical proof that career education is beneficial to later NEET outcomes does not negate its potential usefulness. In particular, certain studies provide indirect evidence that suggest mechanisms through which career education may affect future employment and education outcomes:

- *Prevent students from eliminating pathways prematurely:* Early career education can ensure that young students do not eliminate certain options prematurely, for example because they believe the occupation to "belong" to the other gender (Hughes et al., 2016^[18]; Kashefpakdel, Rehill and Hughes, 2018^[21]). In an evaluation of the Career-Related Learning Pathfinder pilot programme that sought to strengthen career education in selected English primary schools in deprived areas,

students, and particularly boys, saw stronger reductions in stereotypical thinking about suitable careers for men and women than students in comparison schools (Wade et al., 2010^[22]). This could theoretically lead to a better fit between the educational choices of young people and their interests and skills.

- *Improve educational outcomes:* In the context of a randomised controlled trial of a career education-oriented teacher training programme in North Carolina, teachers started providing more career-relevant materials to their students, which boosted student scores in mathematics, though not in reading (Rose et al., 2012^[23]; Woolley et al., 2013^[24]). An early meta-analysis also found positive impacts of career education on student results in reading and mathematics, and particularly so for primary school students, but largely from programmes that devoted significantly more time to career education (Evans and Burck, 1992^[25]). Students with better test scores and grades may be less likely to leave education early and to enter the NEET status. For example, a Norwegian study found that the grade point average in lower secondary school was more predictive of NEET status two years after taking the test of the Programme for the International Assessment of Adult Competencies (PIAAC) while the young people were in the 16-24 age group than the PIAAC score itself. The researchers found that increasing the grade point average by one standard deviation reduced the likelihood of being NEET by 7 percentage points (Barth et al., 2021^[26]).
- *Increase career certainty and alignment:* School-based career education can positively influence career certainty and career alignment with their occupational ambitions (see in particular Table 6.2 in Covacevich et al. (2021^[4])), which in turn have been found to be associated with positive outcomes later in life. Based on survey responses from 706 secondary students in New South Wales, students who had not participated in career education activities, such as talking to counsellors or participating in career education classes, were more likely not to know what they wanted to do when they finished with school (Galliot and Graham, 2015^[27]). Students in their mid-teens who could formulate some expectation about their occupation as an adult were 6 percentage points less likely to be NEET in their mid-twenties in Canada; while there was no significant association in the People’s Republic of China (hereafter “China”), Korea, the United Kingdom and the United States (Covacevich et al., 2021^[17]). Having education and occupational goals that were aligned was associated with a 1.27 times lower NEET rate in Korea, while there was no significant association in Canada, China and Germany. Based on data from the British Cohort Study, boys with misaligned or uncertain career aspirations at age 16 were particularly more likely to be NEET during the following two years if they came from less advantaged socio-economic backgrounds. For girls, this heightened impact for those from less advantaged backgrounds did not occur (Yates et al., 2011^[28]). The negative association persists over time, with young people with misaligned or uncertain career ambitions experiencing more months of unemployment between ages 16 to 34 and lower wages at age 34. However, women who overestimated educational requirements for their career aspiration did not experience lower wages once their educational attainment was controlled for (Sabates, Harris and Staff, 2011^[29]).

3.1.4. Policies and interventions to strengthen career education across the OECD

Across the OECD, approaches to career education vary from creating dedicated career education classes to integrating career education into other subjects, and from delivering the education through specialised internal staff, in particular guidance counsellors, external partners such as dedicated public employment service employees, or through “regular” subject teachers. School staff may also involve parents and employers into their career education activities. While this section will focus on the role of teachers, the following section on career guidance and employer engagement will provide inputs on the role of internal and external guidance counsellors and of employers, respectively. Table 3.2 provides selected examples of career education interventions across Australia and other OECD countries. Programmes that were

implemented at only one school or that are commercial offers are not presented. The OECD's *Career Readiness* project website also provides many of these examples.

Career education should be adapted to the needs of different age groups and ideally progress over time in a coherent manner. For example, some primary and secondary schools on New Zealand's North Island have adopted the "WE3 Continuum and Activities" framework. During the exposure phase targeted at ages 10 to 14, teachers present concepts about the world of work to students. During the exploratory phase, from ages 13 to 16, students hear from people about their careers or can explore basic tasks of a particular trade they are interested in. From age 16 onwards, students can start with work experience activities. Online career education and planning platforms, such as the myBlueprint component of the Future Ready Learning K-12 programme, can complement classroom instruction through allowing students to explore career and education options that they are personally most interested in an age-appropriate way. Online platforms can also complement the information that teachers and career guidance counsellor offer to students with particular needs, such as on which workplace accommodations disabled individuals can count on.

Many countries include career education as a part of the curriculum, but the degree to which this results in mandatory classwork components, or even separate career education classes, varies. France, through its *Parcours Avenir*, takes an approach similar to Australia in that its curriculum mandates that schools help students explore the world of work, but leaves schools a wide latitude in how they want to achieve this. The focus of Korea's Free Learning Semester and the optional Irish transition year can vary from school to school and student to student but will in many cases include some type of work experience. On the other end of the spectrum, Norway's Educational Choice Subject mandates 110 hours of career education, leaving schools the choice of how to distribute these hours across the three years of lower secondary education. While leaving schools the option to shape career education can make activities more pertinent to the local context, it can also lead to unequal access in career education opportunities. In the case of the voluntary Irish transition year, for example, which has been found to be associated with better academic outcomes, the share of participating schools and students varied according to the socio-economic composition of the student body, and thereby potentially compounded existing disadvantages (Clerkin, 2013^[30]).

Whole-of-school or even whole-of-community approaches to career education that combine the capabilities of counsellors, teachers, external partners, employers and parents are likely to be the most successful. In order to work well, however, teachers need the necessary skills to integrate references to the world of work within their regular lesson plans, and parents may need guidance on how to best talk to their children about their future.

One pathway to strengthen career education is to integrate it into the initial and continuing education curriculum for teachers. As previously mentioned, relatively few Australian teachers have received training in career education. Evidence suggests that the career education components within teacher training can be relatively short and nonetheless have an impact, suggesting that continuous training options can be an important ingredient to improve career education. For example, a five-module training for Turkish middle school teachers, who generally do not receive any training in career education during their initial studies, was able to raise the participants' perceived self-efficacy in providing career education, but did not impact their communication skills (Karacan Ozdemir et al., 2022^[31]). In the previously mentioned North Carolinian randomised controlled trial of a career education-oriented teacher training programme, lower secondary teachers attended a half-day group training class and received sample lesson plans. This resulted not only in teachers presenting more career-related material, but improved students' grades (Rose et al., 2012^[23]; Woolley et al., 2013^[24]).

It may be possible to provide at least some of the continuous training for teachers in a digital format. This can be particularly attractive in a country with large remote rural populations. Programmes such as Future Ready Learning K-12 programme in New Brunswick, Canada are experimenting with providing the teacher

training through online modules but have not been evaluated yet. To be effective, digital offers for teachers should follow principles that are also good features of in-person learning. Yet they also need to take into account the digital skills of teachers and reflect the potential advantages of online offers, such as increased customisation. For example, the Gender4STEM programme's e-learning platform provides teachers with a self-assessment tool and teaching materials to increase girls' interest in Science, Technology, Engineering and Mathematics (STEM) subjects (Gender4STEM, 2018^[32]). Digital tools may thus allow teachers to simultaneously identify and address any knowledge gaps and help them in providing better guidance for specific populations such as girls, students with disabilities and Indigenous students. Combining online and offline learning may be particularly beneficial (Mineea-Pic, 2020^[33]).

Providing teachers with appropriate materials on career education is another way to improve the quality of career education interventions. For example, teachers involved in teaching mandatory career education in Norway noted that they lacked appropriate teaching material and struggled with differentiating the career education according to the needs of students (Lødding and Holen, 2012^[34]) cited in (Roise, 2020^[35]). However, to be effective, the materials on career education need to be easy to access and integrate into lessons, and teachers need to be convinced of the importance of career education to devote time to it (Mahat et al., 2022^[36]).

Creating a network between different stakeholders involved in career education, including parents, can be helpful. In Australia, the Belconnen Schools Network is a collaboration between public schools and colleges, community agencies, employers, further education providers, parents and staff from the Education Support Office, with the goal of improving career education for students. Services include supporting school students with leadership and guidance for career practitioners and careers administrative staff in schools. The Network also aims at increasing school students' knowledge about employment and careers through talks by professionally qualified career practitioners, educators from universities and employers from local businesses (Department of Education, Skills and Employment, n.d.^[37]). In a number of interventions, schools provide information about career education to parents or involve them in career education activities. The empirical evidence about the effectiveness of these types of interventions, if it exists at all, is mixed, ranging from negligible to positive (Oomen, 2016^[38]).

Well-developed career education can mitigate some of the disadvantages that certain groups may face in their career development capabilities. In general, students from socio-economically advantaged households are more likely to be able to rely on their parents' knowledge in considering different educational pathways; and can moreover benefit from their parents' social network to access information and potentially internship opportunities (OECD, 2021^[7]). Well-implemented career education can compensate for some of the disadvantages this can entail for students from households with less educational and cultural capital. Research from Korea, for example, shows that students whose parents had higher educational levels had higher career development skills, as measured by such items as whether they knew how to explore different job options and how to prepare for job requirements, while parental income levels had no influence. Participating in a career education class reduced the association between parental education and career development skills; suggesting that career education can help students whose parents have lower educational attainment increase their career development skills (Lee et al., 2021^[39]). Gibbons et al. (2019^[40]) also suggest that career education programmes should adjust to a cultural group's unique strengths and values. For example, in the case of Rural Appalachia in the United States, they noted the need to incorporate considerations of the strong values of community connection and responsibility to family into how career educators communicated about possible pathways.

Table 3.2. Selected career education interventions

| Intervention | Description | Objectives | Evaluation | Evaluation outcomes |
|---|---|---|---|---|
| Australia | | | | |
| BECOME career education. 10+ year-olds. 2017- (OECD, 2021 ^[41]) | The programme consists of teacher-led classroom activities and a student app (that allows students to engage with and “collect” occupations) and a teacher app (that shows teachers what students are interested in) | Deepen students’ understanding of themselves and the world of work | Case study on an individual school using pre- and post-programme surveys (Pennie and Bright, 2021 ^[42]) | Half of the surveyed students changed their future career plans. The evaluators conclude that this demonstrates that the programme leads students to think about the implications of their career choice and whether it is a fit for their personality in a deeper way. The programme also appeared to increase the range of occupations students were interested in. |
| Other countries | | | | |
| Explore Your Horizons. Manitoba and New Brunswick, Canada. 16-18 year-olds. 2003- | Voluntary after-school workshops on exploring different post-secondary paths (e.g. VET, university) [Combined with an enrollment incentive in New Brunswick] | Reduce barriers to attending postsecondary education that underrepresented students face, including a lack of information | Quantitative analysis of the intent-to-treat effect based on administrative data including tax records | The workshops increased post-secondary enrollment in New Brunswick, but not in Manitoba, nor did it increase university completion in either province. Similarly, young people who were offered participation in the workshop had a higher income at age 23-24, while in Manitoba, there was no impact. |
| Future Ready Learning K-12 programme. New Brunswick, Canada. 4-18 year-olds. 2019- (OECD, 2021 ^[43]) | Online modules for educators on instructional strategies for career education, including a course to increase teachers’ abilities in working with migrants and non-native English speakers. Online career planning tool (myBlueprint) for students aged 9 to 17 including labour market information and information about preparing job applications. The platform also offers custom guides for vulnerable groups, such as students with disabilities, newcomers, Indigenous students and LGBTI+ students (The Learning Partnership, 2020 ^[44]). Personal development and career planning course in grade 9 or 10. | Equipping all school staff with the skills to help students think about careers; offering everyone including students from marginalised backgrounds the same access to career thinking. | None | N.A. |
| Parcours Avenir (Path for the future). France. 11-18 year-olds. 2015- | The French curriculum requires schools to help students explore the world of work in a whole-of-school approach, but they have latitude about how to accomplish this. Activities can include short internships, employer presentations and enterprise competitions (Ministère de l’Education Nationale de la Jeunesse et des | Provide students a sense of ownership over their educational and career pathways | None | N.A. |

| Intervention | Description | Objectives | Evaluation | Evaluation outcomes |
|---|---|--|--|--|
| | Sports, 2015 ⁽⁴⁵⁾ . In science classes in one school, students were for example provided with a list of occupations related to the water industry, after which they pick the job that interests them the most and are invited to reflect on which skills were necessary for the job (OECD, n.d. ⁽⁴⁶⁾). | | | |
| Free Learning Semester. Korea. 12-14 year-olds. 2016- (2013 pilot) | A semester with reduced curriculum load (21 versus 33 hours) and no standardised tests during which students can spend 12 hours on activities such as community engagement, sports or arts programmes or internships (ICCDPP, 2017 ⁽⁴⁷⁾). The Ministry of Education assisted schools in creating community ties by arranging partnerships for example with the Forest Service and the SME Business Administration. Organisations can become Educational Partners for Career Exploration to offer learning opportunities during the free semester. | Help students explore their capabilities and interests (OECD, 2021 ⁽⁴⁸⁾) | Various studies on for example the impact on the use of tutoring and on the interaction with the regular semesters | No studies could be identified in English-language sources that investigated the impact of the FLS on student education or employment outcomes |
| Transition year. Ireland. 15-year-olds. 1994- (First selected implementation 1997-) | The optional transition year focuses on non-academic subjects, sports, volunteering and work experience. | | Qualitative studies on the level of satisfaction of students and teachers with the programme and non-causal quantitative studies on the educational attainment of students who participated (see (Clerkin, 2012 ⁽⁴⁹⁾) for an overview) | Participating students tend to perform better in their final upper secondary exams. However, the studies do not account for the fact that the students who participate in the programme are not necessarily comparable to those who do not. In the early 2010s, there was a gap in the share of participating schools and students with a higher or lower level of educational advantage (at the school and individual level) (Clerkin, 2013 ⁽³⁰⁾) Moreover, everything else being equal, participating students are a year older than non-participating students by the time they take their leaving certificate exams. |
| Educational choice subject. Norway. 13-15 year-olds. 2008 | 110 hours of career education that can be distributed across three years of lower secondary school according to the school's preferences (Roise, 2020 ⁽³⁵⁾). | The subject's goal is to contribute to students gaining competence in making career choices based on their wishes and the job's demands. | Qualitative analysis (interviews with students, teachers and school leaders) | Teachers struggled with a lack of appropriate teaching material and with differentiating the career education according to the needs of students (Lødding and Holen, 2012 ⁽³⁴⁾), cited in (Roise, 2020 ⁽³⁵⁾) |

Source: Own compilation of selected studies

3.2. Career counselling and guidance

Career counselling and guidance ideally allows students to identify career pathways that match their skills and interests, as well as opportunities for work and learning, through one-on-one or group counselling sessions. While career education may be delivered by non-specialised teachers as well as guidance counsellors, and involve the support of parents, employers and the community at large, dedicated experts have a primary role in providing career counselling. The counselling may be delivered at school, in dedicated youth employment centres or in public employment service offices.

3.2.1. Career counselling and guidance in Australia

In Australia, the resources for career guidance for younger students and their parents appear somewhat limited. The report of the review of senior secondary pathways into work, further education and training noted that even for senior secondary students, high-quality career advice in schools appeared to be the exception rather than the rule, though precise data on this topic is lacking (Education Council, 2020^[50]). For younger students, such advice is likely to be even less common. The National Careers Institute, part of the Department of Employment and Workplace Relations, is a resource for careers information and support for people living in Australia. Among their priorities are the provision of tailored career support for school leavers and young people aged between 15 to 24. They also administer the Partnerships Grants programme to encourage businesses, industry, schools and community organisations to collaborate to improve career outcomes (Department of Education, Skills and Employment, 2022^[51]). However, this once again leaves out younger students.

The requirements for guidance counsellors can vary by states and school type. In a literature review on career development learning, Austin et al. (2020^[52]) note that for example New South Wales does not have a clear job description for career advisors; and that counsellors may not have the necessary skills. The problem may be more acute in remote and isolated schools that often suffer from high staff turnover. The Maximising Engagement, Attainment and Successful Transitions (MEAST) programme provided states and territories with funding for specific initiatives supporting multiple learning pathways, career development and mentoring. Frequently, this funding went to study grants for career education qualifications. Funding was also used to lead professional learning workshops for teachers and youth workers on how to use pathways planning as part of the Career and Transition Framework (Dandolopartners, 2014^[53]).

Despite the relatively negative judgement on the availability of career guidance from Australian sources, the actual availability compared to other OECD countries is in fact not that low. According to PISA 2018 student responses, 64% and 23% of Australian students had spoken to a career advisor at or outside their school by the age of 15-16, with two-thirds having spoken to an advisor either within and/or outside their school. This compares favourably to the OECD (18-country) average of 50% and 24%, respectively. The share of students who have spoken to an in-school advisor is only larger in Denmark (84%), Iceland (72%) and the United Kingdom (66%) (Mann, Denis and Percy, 2020^[9]). However, the less positive judgement could reflect that support is perceived as insufficient. As in other countries, there are also differences in the availability of career counselling by students' socio-economic background, with the availability ranging from 63% for those from the quartile with the least advantaged and 72% for the most advantaged socio-economic quartile. In part, this is driven by variation of in-school provision.

3.2.2. The association between career guidance in secondary school and later NEET outcomes

As is the case with the evidence on the link between career education and later NEET outcomes, the direct evidence on the impact of career guidance is limited, but indirect evidence suggests that career guidance may lower the chance of a young person becoming NEET.

Table 3.3 summarises results from existing selected longitudinal studies of the association between career guidance activities and NEET status in the late teenage years or mid-twenties. The first study focuses on the association between NEET status by age 25 and participation in career guidance at age 15 (talking to a career counsellor according to responses to the PISA student survey). In Canada, having participated in these activities was associated with a three percentage point lower probability of being NEET in the mid-twenties, while there was no statistically significant relationship in Germany and in the United Kingdom. However, it needs to be noted that these studies do not prove that participating in career guidance causes the NEET probability to drop, as the same constraints mentioned in the career education evidence section apply. A second study that sought to establish a causal link between talking to a career counsellor and not being unemployed during the first five years after completing school is based on the differential roll-out of job information centres around Germany. The study found that students at all schools or at lower and intermediate level schools (whose terminal degree does not lead to an upper secondary degree) were eight and ten percentage points less likely, respectively, to experience unemployment during the first five years since graduating from school if they had lived in a district where a job information centre opened. However, these effects appeared to be larger for earlier cohorts before the widespread availability of the Internet, suggesting that they would now be smaller. Moreover, the results are only statistically significant at the 10% but not the standard 5% significance level.

Table 3.3. Selected studies on the impact of career guidance on NEET outcomes

| Intervention and country | Study | Evaluation methodology | Evaluation outcomes |
|--|---|--|---|
| Talking to a career counsellor about their future/work they might be interested in <i>Canada, Germany, the United Kingdom</i> | Covacevich et al. (2021 ^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries" | Quantitative longitudinal: Logistic regression of NEET status at age 25/26 on indicator of whether student had talked to a teacher by age 15 and control variables including gender, socio-economic status and academic performance. | Teenagers who had talked to a career counsellor about work they might be interested in were 3 percentage points less likely to be NEET at age 25-26 than comparable young people in Canada. In Germany and the United Kingdom no statistically significant association was found. |
| Opening job information centres in the district <i>Germany</i> | Saniter (2014 ^[54]), "The Effects of Occupational Knowledge: Job Information Centers, Educational Choices, and Labor Market Outcomes" | Quantitative longitudinal: Difference-in-difference estimation based on the availability of job information centres (JIC) in the district at the time of school attendance | Students who went to low- or intermediate-track school when a JIC was available in their district were more likely to graduate with a degree necessary to study at university; to not be unemployed and to not involuntarily lose their job during their first five years on the labour market. |

Source: Based on Covacevich et al. (2021^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries", <https://doi.org/10.1787/cec854f8-en>.

The evidence from these few direct studies is bolstered by other studies that show a positive association between career guidance and education outcomes on the one hand and career guidance and career aspirations or career readiness on the other hand:

- **Education outcomes:** The previously mentioned study by Saniter (2014^[54]) on the impact of Job Information Centres concluded that for students who attended a lower- or intermediate-level school, being exposed to a centre boosted their probability of attaining the highest-level school leaving certificate (*Abitur*) and a university degree by seven and five percentage points,

respectively. Tomaszewski, Perales and Ning (2016^[55]) concluded that in Australia, listening to a talk by a career guidance professional (but, interestingly, not talking to a guidance counsellor) was associated with an increased likelihood of enrolling in university. This increase was even larger for young people from a low socio-economic background but smaller for those who came from a non-English speaking background. Mann et al. (Mann et al., 2020^[6]) also cite several US studies that found a positive relationship between the ratio of career counsellors to students and the likelihood of students enrolling at university. Higher educational attainment can lower the likelihood of being NEET both directly and indirectly. First, during any time that a young person continues to be enrolled in formal education, they are by definition not NEET. Second, in many countries, higher-educated young people are less likely to be NEET; and even in those countries where the relationship is inverted and highly educated young people at a higher risk of being NEET, their risk of remaining NEET over the long term is usually low.

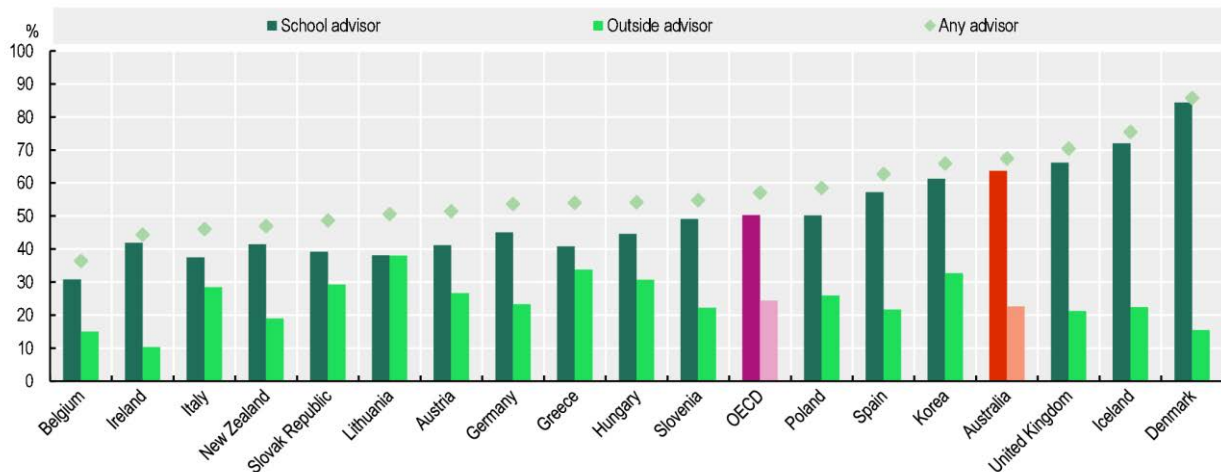
- *Career aspirations and readiness:* Having access to career guidance appears to reduce the share of young people who are uncertain about their career aspirations. For example, among students who performed relatively poorly in the PISA 2018, 28% who did and 33% who did not have access to career guidance at school were uncertain about their career aspirations; and this access also appears to slightly reduce career misalignment (i.e. having too low or high educational aspirations for the career that one aspires to) (see also Table 6.2 in Covacevich et al. (2021^[4])). However, PISA data provide no insight into the intensity and duration of participation in career development activities or on whether participation was compulsory (Mann, Denis and Percy, 2020^[9]). As discussed under the career education section, having clear career aspirations, even if these continue to evolve in different directions over time, can be associated with a reduced likelihood of becoming NEET.

3.2.3. Career counselling and guidance policies and interventions

Career guidance can be provided by counsellors working both within and outside of schools, with different countries choosing a different balance. Figure 3.2 shows the balance of working with school-based and outside advisors in selected OECD countries that participated in the 2018 PISA survey. In general, countries that rely more on an outside rather than school-based advisor appear to have a lower coverage of career guidance. However, it is certainly also true that it would be possible to design a career guidance system using outside advisors that reaches high coverage. Moreover, if outside advisors visit schools for one-on-one or group guidance sessions, students may perceive them to be school rather than outside advisors. Switching from one mode of delivery to another can be an issue: in the United Kingdom, the responsibility for career guidance for young people used to lie with local entities, and often provided through dedicated career services. In other cases, the external career services were included in the Connexions Centres, whose mission was predominately dedicated to assisting at-risk young people and which were not always as well equipped to provide career guidance (Watts, 2008^[56]). In 2010, the responsibility was switched to schools, which appeared to lead to a reduction in guidance for many students (Moote and Archer, 2017^[57]). Table 3.4 provides an overview of selected career guidance interventions.

Figure 3.2. The share of young Australians who have met with a career advisor is relatively high

15-year-olds who have seen a career advisor, 2018



Note: The OECD averages are equal to the unweighted average of the listed countries. Countries are sorted in ascending order of the percentage of students who met with any advisor.

Source: (OECD, 2021^[58]), *Investing in Youth: Slovenia*, <https://doi.org/10.1787/c3df2833-en>, based on OECD PISA 2018, <http://www.oecd.org/pisa/data/2018database/>.

Some countries favour within-school career guidance. Hiring specific staff for guidance and counselling can increase the quality of the service provided to students. In-school counsellors may be particularly effective at providing guidance for younger adolescents and those most at risk of dropout. In order to prevent career guidance to be “swallowed” by other guidance functions (such as for students’ personal, mental or behavioural problems), several countries such as Poland and Norway have separate career and other guidance counsellors (Watts and Sultana, 2004^[59]). Special Education Needs Co-ordinators (SENCOs) may co-operate with career counsellors in providing targeted career and education guidance to students with special education needs (Brussino, 2020^[60]).

In-school career guidance requires adequate resources (European Training Foundation, 2020^[61]). In Korea, the Ministry of Education recruited a sufficient number of career counsellors to cover more than 95% of schools by 2014. These career guidance teachers are required to have a full teaching degree as well as an additional 570 hours of training in guidance; and post-graduate degrees in career counselling for primary and secondary school counsellors exist (OECD, 2019^[62]). In Finland, school guidance counsellors are obliged to check up on students at the conclusion of lower secondary education at age 16 and make sure that they enrol in either upper secondary education or vocational education. In Tasmania, year 10 students similarly now need a transition statement, but this is not related to a mandatory check-in with a guidance counsellor (Tasmanian Government Department for Education, n.d.^[63]). Following parliamentary recommendations, the ratio of students to guidance counsellors in the country is around 250 to 1. These counsellors are full-time salaried members of the school staff who provide individual career guidance to students, oversee the mandatory career education compulsory hours, and liaise with employers (Toni and Vuorinen, 2020^[64]). The latter has been found to be instrumental in providing effective guidance to students (CEDEFOP et al., 2021^[65]), as will be discussed more in the following section.

Other countries also provide career guidance at school, but through outside experts rather than in-school guidance counsellors. For example, in Scotland, schools can ask staff from Skills Development Scotland to deliver career services at school, including one-on-one and group activities, and to link up with employers for outreach activities. Similarly, Northern Irish schools have partnerships with the careers’ service (Holt-White, Montacute and Tibbs, 2022^[66]). Through the activities of the National Career Institute,

Australia is likewise following a model that complements in-school career guidance resources with external ones.

In other countries, career counselling in school is complemented by out-of-school guidance centres. These can be focused solely on career guidance, as is the case with the Youth Career Centres in Slovenia or the Croatian Employment Service's CISOC centres. The CISOC centres are administered by the Croatian Employment Service and address school children, university students and individuals who are NEET. For secondary students, activities include workshops where students fill out interactive questionnaires and participate in exercises and discussions with the aim of improving their awareness of personal strengths and weaknesses, interests and objectives (OECD, n.d.^[67]). In other cases, outside services combine career guidance with other services, such as in Finland's "one-stop guidance centres". In 2019, such guidance centres were operating in over 100 municipalities in Finland (Kettunen and Felt, 2020^[68]). Digital tools can also be helpful, especially so for young people living in remote rural areas. The OECD will launch an Observatory on the use of digital technologies in career guidance of youth in spring 2023 that will collect good practice examples.

Table 3.4. Selected career guidance interventions

| Intervention | Description | Objectives | Evaluation |
|---|---|---|-------------|
| National Careers Institute. Australia. 2019- | Offering individualised career guidance sessions for 15-24 year-olds as well as workshops at schools that discuss the available services but also job search strategies, career exploration, key resources. Currently running a pilot programme for schools that lack a career integration professional. | | In progress |
| Recruitment of school-based career counsellors. Korea | The Ministry of Education recruited more than 5 000 career counsellors. These career guidance teachers are required to have a full teaching degree and an additional 570 hours of training. Post-graduate degrees in career counselling for primary and secondary school counsellors exist at ten graduate schools. | Ensure that all lower and upper secondary schools are covered by a career counsellor. | N.A. |
| Compulsory career counselling. Finland. Age 16. 2021- | Since 2021, school guidance counsellors are obliged to check up on students at the conclusion of lower secondary education at age 16. The ratio of students to the full-time in-school guidance counsellors is around 250 to 1. Counsellors provide individual career guidance, oversee the mandatory career education, and liaise with employers (Toni and Vuorinen, 2020 ^[64]). | Ensure that students enroll in upper secondary or vocational education. | N.A. |
| KomposyT Information System. Slovak Republic. 2015- | An online advisory tool (https://www.komposyt.sk/) for career counsellors, parents and students, including 34 diagnostic tools available to counsellors. There are multiple guides targeted towards students with different special educational needs. | Ensure that students with SEN and their parents have access to tailored information. | N.A. |

Source: Own compilation of selected studies.

3.3. Work-based learning and employer engagement

Contacts with employers and work-based learning can allow young people to get a taste for what being in a workplace feels like, explore whether they might be interested in a particular occupation and rule options in and out, increase their confidence, start to build their professional network and potentially even strengthen their soft skills (Jones, Mann and Morris, 2016^[69]). Integrating contacts with employers but also with workers into career education can make the lessons "come alive" and thereby increase students' interest in thinking about their future occupation. In general, work-based learning includes activities such as employer outreach, job shadowing, service learning, internships and school-based apprenticeships (see Chapter 4) (Kis, 2016^[70]). For the younger age group that this report focuses on, the most common forms of employer engagement and work-based learning include career days at school with employer

presentations and workplace visits and job shadowing; as well as short internships for those reaching the end of lower secondary education.

3.3.1. Employer engagement and work-based learning in Australia

Industry-school partnerships exist at all school levels, but activities appear stronger in upper secondary school. A 2010 report on school-business relations found that all surveyed secondary schools that co-operated with employers did so on transition and employability programmes, and almost all offered activities to enhance student engagement with industry, such as workplace visits, and supporting student aspirations, such as through leadership and skills development. The reported statistics did not distinguish between offers for lower and upper secondary students. Around 60% of primary schools also offered activities to enhance student engagement with industry and supporting student aspirations, respectively (PhilippKPA, 2010^[71]). In an overview of 14 case studies illustrating the guiding principles for school-business relationships developed following the recommendation of the 2012 Business-School Connections Roundtable, two case studies explicitly mentioned working with younger students. These include a solar car competition for year 8 and 9 students that involves company mentors; and a leadership programme for year 5 and 6 students that includes a visit to a management consulting company (Department of Education, 2012^[72]).

In the past, the Australian Government also supported connections between education and training providers, businesses, families and the wider community through the School, Business and Community Partnership Brokers programme. The programme's national network of brokers was meant to set up sustainable partnerships between the different parties to support young people's learning and development.

Despite these efforts, PISA 2018 results show that fewer Australian students than in the OECD on average have taken part in a workplace visit or work shadowing, while a higher share have completed an internship (Figure 3.1). The largest barriers to employer engagement are insufficient time or resources to host students (Knight and Mlotkowski, 2009^[73]). Work-based learning opportunities appear more plentiful for upper compared to lower secondary students. At the upper secondary stage, students can enter Australia's vocational education and training system, in which work-based learning is an integral part. This option is described in more detail in Chapter 4 on vocational education. Other upper secondary students can complete an internship that counts as an elective course (OECD, 2020^[74]). That said, lower secondary students may also complete internships.

3.3.2. The association between employer engagement and later NEET outcomes

There exist few empirical studies on the relationship between employer engagement and work-based learning (beside formal VET programmes) for younger students (see Table 3.5). Job shadowing appeared to be associated with a reduction in the incidence of being NEET for girls but not boys in the United States; and likewise with a modest reduction in Canada and a less modest one in Korea. For Germany, the United Kingdom and an alternative US study, there were no statistically significant relationships found. Internships were associated with a reduction in the NEET status of young men in the United Kingdom, and particularly those whose characteristics suggested they were less likely to attend university, while there was no such association found for young women. In the same study, mentoring was not associated with any impacts. A different study, also for the United Kingdom, found much more positive associations between employer engagement activities (employer career talks, enterprise competitions and work experiences) and reductions in the likelihood of being NEET at age 19 to 24. Another British study found that the perceived quality of the employer engagement activity – in this case, a career talk by an external speaker – can matter as well. While career talks attended at age 14-15 were associated with higher wages at age 26, the same was only true for 15-16 year-olds who rated the talk as helpful (Kashefpakdel and Percy, 2017^[75]).

A weakness of the literature on the impact of employer engagement activities on NEET outcomes is that few studies focus on the characteristics and quality of the work experience or provide evidence that distinguishes between the impacts of job shadowing and mentoring for lower and upper secondary students. More contacts with employers are however positively associated with increased earnings and reduced NEET risks (Percy and Mann, 2014^[76]; Mann and Percy, 2014^[77]).

Table 3.5. Selected studies on the association of employer engagement activities and later NEET outcomes

| Intervention and country | Study | Evaluation methodology | Evaluation outcomes |
|---|--|---|---|
| Job shadowing Mentoring Internship <i>United States</i> High-school students | Neumark and Rothstein (2005 ^[78]), "Do School-To-Work Programs Help the "Forgotten Half"?" | Quantitative longitudinal: Linear probability model of NEET status three to four years after high school on whether the individual participated in job shadowing, mentoring and internships/apprenticeships while in high school; based on the 1997 National Longitudinal Survey of Youth. Distinction between the impact on the half of students most and least likely to attend post-secondary education based on their observed characteristics. | Participating in job shadowing is associated with a lower probability of becoming NEET for girls less likely to attend post-secondary education, but not for boys. Doing an internship or apprenticeship lowered the risk of becoming NEET for boys in general, but most particularly for those less likely to attend post-secondary education; and had no observed association for girls. Participating in mentoring had no observed relationship with NEET outcomes for either girls or boys. |
| Workplace visits or job shadowing <i>Canada, Germany, Korea, the United Kingdom, the United States</i> | Covacevich et al. (2021 ^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries" | Quantitative longitudinal: Logistic regression of NEET status at age 25/26 on indicator of whether student had participated in a workplace visit by age 15 and control variables. | Students were 4 percentage points/1.23 times less likely to be NEET by their mid-twenties than those who did not do any workplace visits or job shadowing in Canada/Korea. No significant association in Germany, the United Kingdom and the United States. |
| Employer career talks Enterprise competitions Work experience <i>United Kingdom</i> | Mann et al. (2017 ^[79]), <i>Contemporary Transitions: Young Britons reflect on life after secondary school and college</i> | Quantitative using retrospective data: Regression analysis of NEET status at age 19-24 on recalled activities at ages 14-16 and 16-19 | Young people who participated in career talks/enterprise competitions/work experience at ages 14-16 were 81%/75%/45% less likely to be NEET than peers who did not. The more activities an individual recalled, the less likely were they to be NEET. |
| Career talks or job fairs <i>Canada</i> <i>Germany</i> <i>Korea</i> <i>United Kingdom</i> <i>Uruguay</i> | Covacevich et al. (2021 ^[17]), Indicators of teenage career readiness | Quantitative longitudinal: Logistic regression of NEET status at age 25/26 on indicator of whether student had attended a career talk or job fair by age 15 and control variables. | Young people who attended a talk were 3 percentage points less likely to be NEET in their mid-twenties in Canada and the United Kingdom. No significant association was found in other countries. |

Source: Based on information found in Covacevich et al. (2021^[17]), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries", <https://doi.org/10.1787/cec854f8-en>.

3.3.3. Policies and interventions to strengthen employer engagement and work-based learning

Employer involvement in career education can be organised by individual schools, as a region- or country-wide initiative, or by employers themselves. Several initiatives can have dual goals, such as raising the profile of the employer within their community as well as breaking down occupational gender stereotypes (Table 3.6).

In Austria, the French Community of Belgium, Germany, the Netherlands and Switzerland, the Girls' day (and more recently Boys' day) takes place once a year and is organised on a country-wide basis, with individual schools deciding whether they will offer their students from fifth grade onwards the opportunity to participate. During this day, companies carry out information events on industries and occupations that fall outside the "traditional" image of a woman's or man's career choice, such as engineering for girls and nursing for boys. Evaluations of the long-term impact of participation in a girls' or boys' day on educational and occupational choices, and let alone on later NEET outcomes, do not appear to exist. Instead, existing reports simply concluded that a good share of participants stated that the day introduced them to interesting occupations that they might consider for themselves (see for example (Wentzel and Funk, 2014_[80])).

Table 3.6. Selected employer engagement and work-based learning interventions

| Intervention | Description | Objectives | Evaluation | Evaluation outcomes |
|--|--|---|---|--|
| Australia | | | | |
| Workplace engagement pilots. <i>New South Wales.</i> 15-18 year-olds | Eleven schools developed projects to workplace engagement activities for year 9 and 10 students that included workplace visits and learning. | Find an alternative model to internships at the end of year 10 that worked better for students and employers. | Student surveys to find out which workplace experiences seventh graders and pilot participants wanted; but no evaluation of longer term outcomes. | Students perceived their participation in the pilots positively and stated that they had changed their resumes and were more focused on their studies. |
| Other OECD countries | | | | |
| Girls'/Boys' Day. <i>Various countries including Belgium, Germany, the Netherlands and Switzerland.</i> 11+ year-olds. 2001- | Introduce occupations to girls/boys in which women/men are under-represented and which are perceived as traditionally male/female. During the day, employers and universities open their doors and provide presentations and workplace visits. | Enlarge the range of occupations that girls/boys consider going into. | No specific evaluations beyond participant and employer satisfaction surveys. | |
| DigiGiriz. <i>Various countries including Costa Rica, the United States.</i> 11-17 year-olds | An initiative organised by Microsoft Education. During the one-day DigiGiriz Day and the multi-day High Tech Camp, girls can create games or apps, talk to employees and see technology demonstrations. | Engage girls in technology career training. | No evaluation has been identified. | |
| Introduction-to-working life periods (TET). <i>Finland.</i> 13-16 year-olds | A week in 8th and 9th grade during which students explore workplace skills in the real world. Guidance counsellors, students and parents can use the online tool TET-tori to find a placement. | Increase labour market awareness among students. | Mayer et al. (2022 _[81]), <i>Työelämään tutustumisjaksojen toteutus, yhdenvertaisuus, tasa-arvo ja saavutettavuus perusopetuksen aikana</i> [Implementation of introduction periods to working life – Equality, equity and accessibility during basic education]: The evaluation used quantitative and qualitative methods but analysed access and experience during the programme rather than its longer-term impacts. | The access to and experience with TET can vary strongly by student and family background as well as school resources. |

Source: Own compilation of selected studies.

Local governmental organisations and partnership brokers can also play a role in strengthening employer engagement in schools. Aside from the previously mentioned School, Business and Community Partnership Brokers programme, another example is the English Local Enterprise Partnerships. The programme brings together local authorities and businesses. They may include representatives from local educational institutions on their board and have served as a vector to involve employers in schools' career education in a targeted way.

Employers can also run their own engagement programmes. Among one of these programmes that targets both younger and older teens is Microsoft's DigiGirlz programme that offers both one-day workplace visits as well as multi-day workshops.

Several countries mandate that lower secondary students participate in job shadowing or short internships (Brussino and McBrien, 2022^[82]). For example, within the context of the mandatory *Educational Choice* subject in Norway aimed at eight to tenth graders, students typically complete a one-week internship, along with "trying out" different courses in upper secondary schools. Similarly, Finnish students complete one-week Introduction-to-working life periods, usually in both eight and ninth grade, that are supposed to give a first taste of the world of work but also be linked to the learning in academic subjects at school. A recent evaluation (Mayer et al., 2022^[81]) concluded that access conditions were not equal and recommended the establishment of a national monitoring system and of programme co-ordinators at the national and local level. An ongoing project is moreover developing guidelines and training materials for companies and young people so that they can make the most of the experience (Alma Media, 2022^[83]).

3.4. Social inclusion and community interventions

The usage of the concept of social exclusion to describe risk factors and consequences of becoming or being NEET is relatively new. Therefore, it is uncommon to find social integration as an aim of interventions to address NEET rates. This "blind spot" is an occasional criticism of both the NEET concept as such, and of interventions whose operational goal is to reduce the NEET rate (Hargie, O'Donnell and McMullan, 2010^[84]; Phillips, 2010^[85]). Moreover, when used, it is mostly applied to older youth, and may be seen more as an outcome of the state of being NEET rather than as a contributing factor. Despite this absence of specific research (and therefore of evidence on the impact of social inclusion related interventions on NEET rates), it stands to reason that social connectedness can have positive effects on an individual's well-being, and thereby indirectly on their chances of completing school and having the necessary endurance to overcome obstacles during their school-to-work transition. One area where the relationship between social ties and a NEET-related outcome has been studied is with regards to school completion. Adverse social experiences at school, such as bullying and rejection by other students is a risk factor for dropout, while having "school-oriented" friendships and support from other students are a protective factor (Johansson, 2019^[86]).

Community and social inclusion related interventions can be hypothesised to support NEET prevention in a number of ways.

An example of an innovative community programme is the Harlem Children's Zone, a non-profit organisation in Harlem, New York City. The project combines community programmes with charter schools, publicly funded schools run by private organisations. The schools are intended to offer students and their families a wide range of services, including benefits assistance, and other social services. A 2010 study found that while the Children's Zone's middle schools managed to close the racial attainment gap in selected test scores, the offered community programmes had no further impact on academic achievement (Dobbie and Fryer, 2010^[87]). However, the paper did not investigate whether the further community services may have other positive impacts aside from academic results, and therefore does not demonstrate that further community services have no use.

As discussed in the career education section, involving the broader community of parents and employers in career education can make career opportunities come more alive for students, and thereby raise their interest. Programmes to raise community involvement in career education are likely to be substantially cheaper than larger, more ambitious programmes such as the Harlem Children's Zone. Inspiring the Future programme, run by the British Education and Employers charity, connects secondary schools to volunteers willing to share stories about their career experiences. On the programme's website, volunteers can list their sector and occupation, and teachers can identify volunteers that would fit best with their career education objective and invite them to talk to students about their work, including through speed networking events (Education and Employers, 2022^[88]). A similar programme under the same name now exists in New Zealand and parts of Australia. The Route to VET programme of the Danish Vocational and Technical School Students Union likewise connects volunteers with schools. In this case, the volunteers are current VET students and recent graduates. An evaluation estimates that out of each 100 students visited, an additional six people would consider a vocational education pathway (Rambøll, 2021^[89]).

Offering young people more options on how to pass their free time in enjoyable and productive ways can strengthen friendships and lower the risk of substance abuse, which in turn might increase educational attainment and thereby lower NEET risks. The Icelandic prevention model brings together researchers, schools, parents, sports clubs and youth workers to strengthen the prevention of substance abuse in teenagers. In the context of the model, more activities were proposed to parents, to strengthen their social connections and make it more likely that potentially harmful teenage activities, such as staying out too late, were reduced. Teenagers increased their participation in organised activities, such as sports, spent more time with their parents, and reduced their use of drugs and alcohol (Sigfusdottir et al., 2008^[90]). While it was not possible to identify a study that investigated the impact of the Icelandic model on the likelihood of becoming NEET, it is likely that such a positive relationship indeed exists given the reduction in risky behaviours that can contribute to worse educational outcomes.

Early interventions that prevent mental health issues from worsening can likewise reduce the risk that a young person will become NEET, given the strong link between mental health problems and inactivity. Australia has made mental health a central component of its 2021 Youth Policy. Headspace, the National Youth Mental Health Foundation, provides integrated services to 12-25 year-olds to address their mental health, alcohol and drug and work concerns (Department of Education, Skills and Employment, 2021^[91]). An evaluation of the programme concluded almost half of Headspace's clients experienced a decrease in mental distress, which was clinically significant for 13.3% of service recipients. For this group of young people who showed significant reductions in mental distress, the number of days per month that they were unable to study or worked dropped from an average of 7.6 to 3.1 days. While the evaluation did not follow prior participants longitudinally, it can be hypothesised that if the benefits on young people's mental health persists, this might also be associated with a decrease in the likelihood of remaining in or entering the NEET status.

Key policy lessons on pre-employment interventions

Pre-employment interventions can help lower the chances that young people enter the NEET status by familiarising students with the world of work and the relevance of their education; helping them make informed choices about upper and post-secondary educational pathways; let them develop social connections of value and guiding them to develop realistic yet ambitious career aspirations that are ideally oriented towards in-demand occupations with development potential.

Pre-employment interventions can take the form of career education, career counselling and guidance, and employer engagement. While career education in stand-alone classes or integrated into regular subject lessons allows students to discover different career options and explore their interests, career

guidance and counselling complements career education with more individualised advice and guidance about educational and occupational options. Ideally, pre-employment interventions involve parents, employers (employer engagement) and the broader community.

Direct empirical evidence on the impact of different types of pre-employment interventions in the mid-teens on the likelihood of an individual being NEET in their late teens or mid-twenties is relatively limited. However, indirect evidence that shows positive associations between such interventions and the channels through which they could impact education and employment outcomes does make a case for the potential preventative role they could play.

Integrate career education in the initial teacher training. Career education can help students figure out how their interests and abilities fit with potential career pathways, and potentially even boost their performance in academic subjects. The integration of career education into classwork appears a potential boon. But teachers cannot be expected to accomplish this integration successfully, let alone to tailor career education to students with different needs, if they themselves have not been equipped with the necessary knowledge and skills necessary. Offering more courses on career education within the undergraduate or graduate teacher education would not only allow future teachers to gain these necessary skills and knowledge base, including on career development theory, but also stress the importance of this transversal topic within an already heavily solicited school curriculum. Given the high degree of independence of Australian universities to set their own curriculum, federal and state education departments may have to attempt to persuade university education departments of the importance of this integration, for example through engaging in dialogues or hosting relevant conferences and workshops.

Offer continuous training and teaching material to teachers. Strengthening the availability and quality of career development and guidance related training in the professional development offers available to teachers can increase the availability of career education to students more quickly than integrating it into initial teacher training alone. Teachers should have access to diverse continuous training options that address topics such the integration of career education into regular classes, subject-relevant labour market developments and tailoring career education to students with special educational needs or from marginalised backgrounds. In addition, teachers should be able to access model lesson plans with teaching materials for different grade levels that can show different subject teachers how they could integrate career education into their regular classes.

Ensure that access to career education is equitable. In Australia as well as in other countries, teenagers attending schools in a socio-economically more advantaged area on average have access to more career education activities and resources. Monitoring this access and, if necessary, adjusting local offers are an important component to ensuring equity in access. Combining mandatory minimum career education components, as defined in the curriculum, with additional voluntary options, such as the Explore your Horizons workshops in the Canadian provinces of Manitoba and New Brunswick, could be one avenue to ensure that all students obtain the most important pieces of information while giving those who would like to go further the option to do so.

Strengthen in-school career guidance and complement with outside expertise. One-stop-shop centres with integrated career and other guidance services might be especially beneficial to vulnerable students who may be more likely to need multiple services, both while they are still at school but also once they leave them. While the positive effects may be more concentrated among older young people, integrating the service of career counselling within schools might prove more effective for younger teenagers. Such one-stop-shop career guidance centres can ease the challenge of fragmented services and eliminate the duplication of services.

Make education and career guidance mandatory at key transition points. Australian students already benefit from a comparatively high access to in-school and outside career counsellors. By

mandating that all students and, at the younger ages also their parents, speak to guidance counsellors at a sufficient time prior to key transition points (such as the entry into upper secondary education), it can be ensured that no student fails to benefit from this availability.

Connect with employers to offer more workplace visits for younger teens and integrate internships into the curriculum for older students. A lower share of young Australians than the OECD average have participated in workplace visits or work shadowing, while a higher share have completed an internship and participated in a job fair. Making workplace visits and job shadowing more prevalent for younger students would be helpful for their career exploration development process. To do this, primary and lower secondary schools likely have to strengthen their links with employers. For students who are approaching the end of their lower secondary schooling, internships could be helpful. Making these a mandatory part of the curriculum could lessen access gaps to these internships across different student groups. However, it's important that internship opportunities are at inclusive, safe and culturally appropriate workplaces for students to thrive. School involvement in the internship search process is key to ensure that the quality of the internship a student has access to does not depend on his or her parents' professional and personal contacts.

References

- Alma Media (2022), *More meaningful work experience period (TET) for young people*, [83]
<https://www.almamedia.fi/en/blog/2022/07/04/developing-the-work-experience-period-tet-for-young-people/> (accessed on 10 November 2022).
- Austin, K. et al. (2020), *Career development learning for students from low socioeconomic status (LSES) backgrounds*, University of Wollongong. [52]
- Australian Curriculum, A. (n.d.), *Illustrations of Practice: General capabilities and career education*, <https://www.australiancurriculum.edu.au/resources/general-capabilities-and-career-education/illustrations-of-practice/> (accessed on 10 October 2022). [11]
- Barth, E. et al. (2021), "NEET Status and Early Versus Later Skills Among Young Adults: Evidence From Linked Register-PIAAC Data", *Scandinavian Journal of Educational Research*, Vol. 65/1, pp. 140-152, <https://doi.org/10.1080/00313831.2019.1659403>. [26]
- Brussino, O. (2020), *Mapping policy approaches and practices for the inclusion of students with special education needs*, OECD Publishing, Paris. [60]
- Brussino, O. and J. McBrien (2022), "Gender stereotypes in education: Policies and practices to address gender stereotyping across OECD education systems", *OECD Education Working Papers*, No. 271, OECD Publishing, Paris, <https://doi.org/10.1787/a46ae056-en>. [82]
- CEDEFOP et al. (2021), *Investing in career guidance*, [65]
<https://www.cedefop.europa.eu/en/publications/2227> (accessed on 30 May 2022).
- Chung, G. et al. (2022), "Effects of Youth Educational Aspirations on Academic Outcomes and Racial Differences: A Propensity Score Matching Approach", *Journal of Child and Family Studies*, <https://doi.org/10.1007/s10826-022-02227-y>. [8]

- Clerkin, A. (2013), "Growth of the 'Transition Year' programme nationally and in schools serving disadvantaged students, 1992–2011", *Irish Educational Studies*, Vol. 32/2, pp. 197-215, <https://doi.org/10.1080/03323315.2013.770663>. [30]
- Clerkin, A. (2012), "Personal development in secondary education: The Irish Transition Year.", *Education Policy Analysis Archives*, Vol. 20/38. [49]
- Covacevich, C. et al. (2021), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries", *OECD Education Working Paper*, No. 257, OECD Publishing, Paris. [4]
- Covacevich, C. et al. (2021), "Indicators of teenage career readiness: An analysis of longitudinal data from eight countries", *OECD Education Working Papers*, No. 258, OECD Publishing, Paris, <https://doi.org/10.1787/cec854f8-en>. [17]
- Dandolopartners (2014), *Evaluation of the national partnerships on youth attainment and transitions: A report for the department of education*, <http://hdl.voced.edu.au/10707/312286>. [53]
- dandolopartners (2017), *Review of career education in Victorian government schools: Key Findings*, https://www.education.vic.gov.au/Documents/school/teachers/teachingresources/careers/Dandolo_Review_Key_Findings.pdf (accessed on 10 October 2022). [14]
- Department of Education, Skills and Employment (2022), *Australian Government*, <https://www.dese.gov.au/nci/national-careers-institute-and-its-work>. [51]
- Department of Education, Skills and Employment (2021), *Strategic Policy Committee: Effective Transitions*. [91]
- Department of Education, Skills and Employment (n.d.), *National Careers Institute*, <https://www.yourcareer.gov.au/get-career-resources/preparing-secondary-school-students-for-work/case-studies/belconnen-schools-network-partnering-to-deliver-career-services>. [37]
- Department of Education, S. (2012), *Partnerships for schools, businesses and communities - Guiding Principles Case Studies*. [72]
- DESE (2019), *Future Ready: A student focused National Career Education Strategy*, Department of Education, Skills and Employment, <https://www.dewr.gov.au/future-ready> (accessed on 10 October 2022). [10]
- Dobbie, W. and R. Fryer (2010), *Are High-Quality Schools Enough to Increase Achievement Among the Poor? Evidence from the Harlem Children's Zone*, https://scholar.harvard.edu/files/fryer/files/hcz_nov_2010.pdf (accessed on 23 March 2022). [87]
- Education and Employers (2022), *Inspiring the Future*, <https://www.inspiringthefuture.org/> (accessed on 30 May 2022). [88]
- Education Council (2020), *Looking to the future – Report of the review of senior secondary pathways into work, further education and training*, Department of Education, Skills and Employment. [50]
- European Training Foundation (2020), *International Trends and Innovation in Career Guidance*, https://www.etf.europa.eu/sites/default/files/2020-11/innovation_in_career_guidance_vol.2_0.pdf. [61]

- Evans, J. and H. Burck (1992), "The Effects of Career Education Interventions on Academic Achievement: A Meta-Analysis", *Journal of Counseling & Development*, Vol. 71/1, pp. 63-68, <https://doi.org/10.1002/j.1556-6676.1992.tb02173.x>. [25]
- Galliot, N. and L. Graham (2015), "School based experiences as contributors to career decision-making: findings from a cross-sectional survey of high-school students", *The Australian Educational Researcher*, Vol. 42/2, pp. 179-199, <https://doi.org/10.1007/s13384-015-0175-2>. [27]
- Gender4STEM (2018), *Gender4STEM*, <https://www.gender4stem-project.eu/> (accessed on 30 May 2022). [32]
- Gibbons, M. et al. (2019), "Building on Strengths While Addressing Barriers: Career Interventions in Rural Appalachian Communities", *Journal of Career Development*, Vol. 46/6, pp. 637-650, <https://doi.org/10.1177/0894845319827652>. [40]
- Groves, O. et al. (2021), "'One student might get one opportunity and then the next student won't get anything like that': Inequities in Australian career education and recommendations for a fairer future", *The Australian Educational Researcher*, <https://doi.org/10.1007/s13384-021-00468-2>. [13]
- Hargie, O., A. O'Donnell and C. McMullan (2010), "Constructions of Social Exclusion Among Young People From Interface Areas of Northern Ireland", <https://doi.org/10.1177/0044118X10366950>. [84]
- Holt-White, E., R. Montacute and L. Tibbs (2022), *Paving the way - Careers guidance in secondary school*, The Sutton Trust, London. [66]
- Hughes, D. et al. (2016), *Careers education: International literature review*, Warwick Institute for Employment Research, Warwick, https://warwick.ac.uk/fac/soc/ier/publications/2016/hughes_et_al_2016_eef_lit_review.pdf. [18]
- ICCDPP (2017), *About Career Education in Korea*, <http://iccdpp2017.org/is-2017-in-korea/about-career-education-in-korea/?ckattempt=1> (accessed on 18 May 2022). [47]
- Johansson, B. (2019), "Dropping out of school – a systematic and integrative research review on risk factors and interventions", *Working Papers and Reports Social work*, No. 16, Örebro University, Örebro. [86]
- Jones, S., A. Mann and K. Morris (2016), "The 'Employer Engagement Cycle' in Secondary Education: analysing the testimonies of young British adults", *Journal of Education and Work*, Vol. 29/7, pp. 834-856, <https://doi.org/10.1080/13639080.2015.1074665>. [69]
- Karacan Ozdemir, N. et al. (2022), "Fostering teachers' career education competencies: test of a training programme", *British Journal of Guidance & Counselling*, Vol. 50/3, pp. 462-473, <https://doi.org/10.1080/03069885.2022.2031883>. [31]
- Kashefpakdel, E. and C. Percy (2017), "Career education that works: an economic analysis using the British Cohort Study", *Journal of Education and Work*, Vol. 30/3, pp. 217-234, <https://doi.org/10.1080/13639080.2016.1177636>. [75]
- Kashefpakdel, E., J. Rehill and D. Hughes (2018), *What works? Career-related learning in primary schools*, The Careers & Enterprise Company, London, https://www.careersandenterprise.co.uk/sites/default/files/uploaded/1145_what_works_primary_v7_digital.pdf. [21]

- Kettunen, J. and T. Felt (2020), "One-Stop Guidance Service Centres in Finland", in *Career and Career Guidance in the Nordic Countries*, BRILL, https://doi.org/10.1163/9789004428096_020. [68]
- Kis, V. (2016), *Work-based Learning for Youth at Risk: Getting Employers on Board*, OECD. [70]
- Knight, B. and P. Mlotkowski (2009), *An overview of vocational education and training in Australia and its links to the labour market*, National Centre for Vocational Education Research, https://www.ncver.edu.au/_data/assets/file/0011/5033/op03950.pdf. [73]
- Lee, Y. et al. (2021), "Equity in Career Development of High School Students in South Korea: The Role of School Career Education", *Education Sciences*, Vol. 11/1, p. 20, <https://doi.org/10.3390/educsci11010020>. [39]
- Lødding, B. and S. Holen (2012), *Utdanningsvalg som fag og utfordring på ungdomstrinnet - Sluttrapport fra prosjektet Karriereveiledning i overgangen mellom ungdomsskole og videregående opplæring. Evaluering av Kunnskapsløftet*, Nordisk institutt for studier av innovasjon, forskning og utdanning. [34]
- Mahat, M. et al. (2022), "Co-designing a curriculum model for career education: perspectives from regional communities in Australia", *The Australian Educational Researcher*, <https://doi.org/10.1007/s13384-021-00505-0>. [36]
- Mann, A., V. Denis and C. Percy (2020), *Career ready? How schools can better prepare young people for working life in the era of COVID-19*, OECD Publishing, Paris, <https://doi.org/10.1787/e1503534-en>. [9]
- Mann, A. et al. (2020), *Dream jobs? Teenagers' career aspirations and the future of work*, OECD Publishing, Paris, <https://www.oecd.org/berlin/publikationen/Dream-Jobs.pdf>. [6]
- Mann, A., E. Kashefpakdel and J. Rehill (2017), *Indicators of successful transition: Teenage attitudes and experiences related to the world of work*, Education and Employers, London, <https://www.educationandemployers.org/wp-content/uploads/2017/10/CET-indicators-FINAL-04-10-17.pdf> (accessed on 30 March 2023). [19]
- Mann, A. et al. (2017), *Contemporary Transitions: Young Britons Reflect on Life After Secondary School and College*, Education and Employers, London, <https://www.educationandemployers.org/wp-content/uploads/2017/01/Contemporary-Transitions-30-01-2017.pdf> (accessed on 31 March 2023). [79]
- Mann, A. and C. Percy (2014), "Employer engagement in British secondary education: wage earning outcomes experienced by young adults", *Journal of Education and Work*, Vol. 27/5. [77]
- Mayer, M. et al. (2022), *Työelämään tutustumisjaksojen toteutus, yhdenvertaisuus, tasa-arvo ja saavutettavuus perusopetuksen aikana*, Prime Minister's Office, Helsinki, https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163982/VNTEAS_2022_33.pdf?sequence=1&isAllowed=y (accessed on 10 November 2022). [81]
- Minea-Pic, A. (2020), "Innovating teachers' professional learning through digital technologies", *OECD Education Working Papers*, No. 237, OECD Publishing, Paris, <https://doi.org/10.1787/3329fae9-en>. [33]
- Ministère de l'Éducation Nationale de la Jeunesse et des Sports (2015), *Le parcours Avenir*, <https://www.education.gouv.fr/le-parcours-avenir-7598> (accessed on 18 May 2022). [45]

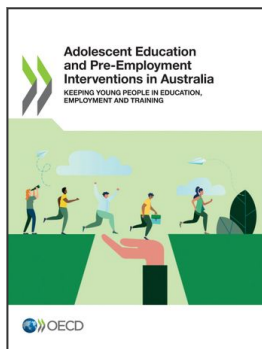
- Moote, J. and L. Archer (2017), "Failing to deliver? Exploring the current status of career education provision in England", *Research Papers in Education*, Vol. 33/2, pp. 187-215, <https://doi.org/10.1080/02671522.2016.1271005>. [57]
- Musset, P. and L. Mytna Kurekova (2018), "Working it out - Career Guidance and Employer Engagement", *OECD Education Working Papers*, No. 175, OECD Publishing, Paris, <https://doi.org/10.1787/51c9d18d-en>. [16]
- National Careers Institute (n.d.), *Australian Blueprint for Career Development*, <https://www.yourcareer.gov.au/resources/australian-blueprint-for-career-development> (accessed on 17 February 2023). [12]
- NCSEHE (n.d.), *News & Events Home/News & Events/News/2021 OECD Conference — NCSEHE presentations on careers information for disadvantaged backgrounds 2021 OECD Conference — NCSEHE presentations on careers information for disadvantaged backgrounds*, 2021 OECD Conference — NCSEHE presentations on careers information for disadvantaged backgrounds. [15]
- Neumark, D. and D. Rothstein (2005), *Do School-to-Work Programs Help the "Forgotten Half"?*, Institute for the Study of Labor, Bonn, <https://docs.iza.org/dp1740.pdf> (accessed on 31 March 2023). [78]
- OECD (2021), *Australia: BECOME career education programme*, <https://www.oecd.org/education/career-readiness/Example%20of%20Practice%20-%20Australia,%20BECOME.pdf> (accessed on 10 October 2022). [41]
- OECD (2021), *Canada: Future Ready Learning K-12*, OECD, Paris, <https://www.oecd.org/education/career-readiness/Example%20of%20Practice%20Future%20Ready%20Learning%20K12.pdf> (accessed on 10 October 2022). [43]
- OECD (2021), *Investing in Youth: Slovenia*, Investing in Youth, OECD Publishing, Paris, <https://doi.org/10.1787/c3df2833-en>. [58]
- OECD (2021), *Korea: The Free Learning Semester Programme*, OECD, Paris, <https://www.oecd.org/education/career-readiness/Example%20of%20Practice,%20Korea,%20Free%20Semester%20Programmepdf.pdf> (accessed on 19 October 2022). [48]
- OECD (2021), *OECD Skills Outlook 2021: Learning for Life*, OECD Publishing, Paris, <https://doi.org/10.1787/0ae365b4-en>. [7]
- OECD (2020), *Improving Work-Based Learning in Schools: Note on Australia*, OECD Publishing, Paris, https://www.oecd.org/skills/centre-for-skills/Improving_Work-based_Learning_In_Schools_Note_On_Australia.pdf (accessed on 3 24 2023). [74]
- OECD (2019), *Investing in Youth: Korea*, Investing in Youth, OECD Publishing, Paris, <https://doi.org/10.1787/4bf4a6d2-en>. [62]
- OECD (2018), *Equity in Education: Breaking Down Barriers to Social Mobility*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/9789264073234-en>. [1]

- OECD (n.d.), *Croatia: Public Employment Services & Job Search Preparation*, OECD, Paris, [67]
<https://www.oecd.org/education/career-readiness/examples-of-practice/collapsecontents/Example%20of%20Practice%20-%20Croatia,%20Public%20Employment%20Services.pdf> (accessed on 18 May 2022).
- OECD (n.d.), *France: jobs and careers in science class*, OECD, Paris, [46]
https://www.oecd.org/education/career-readiness/examples-of-practice/collapsecontents/France_jobs%20and%20careers%20in%20science%20class.pdf (accessed on 18 May 2022).
- Oomen, A. (2016), "Parental involvement in career education and guidance in secondary education", *Journal of the National Institute for Career Education and Counselling*, Vol. 37/1, pp. 39-46, <https://doi.org/10.20856/jnicec.3707>. [38]
- Pennie, L. and J. Bright (2021), *Arriving where we started and knowing for the first time: evaluating an inquiry-based approach to career exploration in 10-13 year olds*, https://www.youtube.com/watch?v=VBAdBOo80I&list=PLqjNc44fuj5YMnrIEV_1aHGBaUCC_Ejjkt (accessed on 20 February 2023). [42]
- Percy, C. and A. Mann (2014), "School-mediated employer engagement and labour market outcomes for young adults", in *Understanding Employer Engagement in Education*, Routledge. [76]
- Percy, C. and E. Tanner (2021), *The benefits of Gatsby Benchmark achievement for post-16 destinations*, The Careers & Enterprise Company, London. [20]
- PhilippsKPA (2010), *Unfolding opportunities: a baseline study of school-business relationships in Australia - Final Report*, <https://www.dese.gov.au/download/1370/partnerships-schools-businesses-and-communities-appendix-1-and-2-final-study-report/1400/document/pdf> (accessed on 27 June 2022). [71]
- Phillips, R. (2010), "Initiatives to support disadvantaged young people: enhancing social capital and acknowledging personal capital", *Journal of Youth Studies*, Vol. 13/4, pp. 489-504, <https://doi.org/10.1080/13676260903522494>. [85]
- Rambøll (2021), *Evaluation of "The Road to a Vocational Education"*, <https://eeo.dk/vejtil/evaluering-3/> (accessed on 22 March 2022). [89]
- Roise, P. (2020), "If Career Education Is the Solution, What Is the Implied Problem?", in *Career and Career Guidance in the Nordic Countries*, Brill, https://doi.org/10.1163/9789004428096_018. [35]
- Rose, A. et al. (2012), "Increasing Teacher Use of Career-Relevant Instruction: A Randomized Control Trial of CareerStart", *Educational Evaluation and Policy Analysis*, Vol. 34/3, pp. 295-312, <https://doi.org/10.3102/0162373711431733>. [23]
- Sabates, R., A. Harris and J. Staff (2011), "Ambition Gone Awry: The Long-Term Socioeconomic Consequences of Misaligned and Uncertain Ambitions in Adolescence", *Social Science Quarterly*, pp. n/a-n/a, <https://doi.org/10.1111/j.1540-6237.2011.00799.x>. [29]
- Saniter, N. (2014), "The Effects of Occupational Knowledge: Job Information Centers, Educational Choices, and Labor Market Outcomes", *IZA Discussion Paper*, No. 8100, IZA, Bonn. [54]

- Schoon, I. (2001), "Teenage job aspirations and career attainment in adulthood: A 17-year follow-up study of teenagers who aspired to become scientists, health professionals, or engineers", *International Journal of Behavioral Development*, Vol. 25/2, pp. 124-132, <https://doi.org/10.1080/01650250042000186>. [2]
- Sigfusdottir, I. et al. (2008), "Substance use prevention for adolescents: the Icelandic Model", *Health Promotion International*, Vol. 24/1, pp. 16-25, <https://doi.org/10.1093/heapro/dan038>. [90]
- Sikora, J. and L. Saha (2011), *Lost talent? The occupational ambitions and attainments of young Australians*, NCVER. [3]
- Tasmanian Government Department for Education, C. (n.d.), *Year 10 Transition Statement*, <https://www.decyp.tas.gov.au/parents-carers/parent-fact-sheets/year-10-transition-statements/> (accessed on 20 February 2023). [63]
- The Learning Partnership (2020), *Future Ready Learning in New Brunswick*, <https://www.thelearningpartnership.ca/about/news-updates/education-leadership-during-the-pandemic/future-ready-learning-in-new-brunswick> (accessed on 18 May 2022). [44]
- Thomson, S. and K. Hillmann (2019), *Against the odds - Influences on the post-school success of 'low performers'*, NCVER, Adelaide. [5]
- Tomaszewski, W., F. Perales and N. Xiang (2016), *Career Guidance, School Experiences and the University Participation of Young People from Equity Groups*, LifeCourseCentre, <https://cica.org.au/wp-content/uploads/2016-27-LCC-Working-Paper-Tomaszewski-et-al.2.pdf> (accessed on 28 October 2022). [55]
- Toni, A. and R. Vuorinen (2020), "Lifelong Guidance in Finland", in *Career and Career Guidance in the Nordic Countries*, BRILL, https://doi.org/10.1163/9789004428096_009. [64]
- Wade, P. et al. (2010), *Key Stage 2 career-related learning pathfinder evaluation*, Department of Education, London, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/182663/DFE-RR116.pdf (accessed on 4 October 2022). [22]
- Watts, A. (2008), "Partnership model for career education and guidance in schools and colleges: Rise, decline - and fall?", *Journal of the National Institute for Career Education and Counselling*, Vol. 20/1, pp. 4-8, <https://doi.org/10.20856/jnicec.2002>. [56]
- Watts, A. and R. Sultana (2004), "Career Guidance Policies in 37 Countries: Contrasts and Common Themes", *International Journal for Educational and Vocational Guidance*, <https://doi.org/10.1007/s10775-005-1025-y>. [59]
- Wentzel, W. and L. Funk (2014), "Der Einfluss weiblicher Betreuungspersonen am Girls' Day auf die Berufsorientierung der Teilnehmerinnen", in *Mädchen auf dem Weg ins Erwerbsleben: Wünsche, Werte, Berufsbilder*, Verlag Barbara Budrich, <http://www.jstor.org/stable/j.ctvbj7k08.7>. [80]
- Woolley, M. et al. (2013), "Advancing Academic Achievement Through Career Relevance in the Middle Grades - A Longitudinal Evaluation of CareerStart", *American Educational Research Journal*, Vol. 50/6, pp. 1309-1335, <https://doi.org/10.3102/0002831213488818>. [24]

Yates, S. et al. (2011), "Early Occupational Aspirations and Fractured Transitions: A Study of Entry into 'NEET' Status in the UK", *Journal of Social Policy*, Vol. 40/3, pp. 513-534, <https://doi.org/10.1017/S0047279410000656>.

[28]



From:

Adolescent Education and Pre-Employment Interventions in Australia

Keeping Young People in Education, Employment and Training

Access the complete publication at:

<https://doi.org/10.1787/7bf19171-en>

Please cite this chapter as:

OECD (2023), “Pre-employment interventions”, in *Adolescent Education and Pre-Employment Interventions in Australia: Keeping Young People in Education, Employment and Training*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/ca69525e-en>

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.