



Career Readiness in the Pandemic: insights from new international research for secondary schools

The OECD Career Readiness project makes use of quantitative evidence to investigate how teenage career-related activities and attitudes are associated with better adult employment outcomes. Review of multiple national longitudinal datasets confirms 11 indicators of better outcomes linked to the ways in which teenagers explore, experience and think about their potential futures in work while in secondary education. This Policy Brief summarises findings and draws out implications for secondary schools.

Young people have never left education more highly qualified or with greater ambition, and yet in many countries they have struggled to find suitable employment. To help students make best use of their academic achievements in the labour market, schools turn to career guidance. Staying in education longer than preceding generations, guidance is of growing importance because young people have more decisions to make about what and where they will study or train, but also how much they will apply themselves to their different studies. As students move through their long transitions from education into work, they are expected to make investments in their education and skills that will ultimately enable entry into desirable, sustained employment. Such decision-making is becoming more challenging because the jobs market itself is changing quickly. The COVID-19 pandemic has increased staying on in education and led to considerable turbulence, raising demand for employment in some areas and reducing it significantly in others. Such disturbance builds on strong change in both the character of work due to the digitalisation of work tasks and the character of post-secondary pathways into employment which in many countries have become more diverse, at times marketised, requiring considerable financial commitments from students.

Evidence from the OECD 2018 Programme for International Student Assessment (PISA) study that asks hundreds of thousands of students about their career plans finds that teenagers can commonly be characterised as possessing career ambitions that are frequently narrow, often confused and commonly shaped by social background (Mann et al., 2020^[1]).

In these circumstances, it is essential that young people have access to effective guidance, but international evidence has been limited on what works in guidance and raised concerns over low participation rates in commonplace guidance activities. This is a particular matter of concern because it is

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now well known that poor starts to working life can be expected to have long-term detrimental effects on the career prospects and psychological well-being of young people (Mann, Denis and Percy, 2020^[2]).

This Policy Brief sets out finding from an unprecedented review of national longitudinal datasets – the best evidence source currently available – to identify 11 teenage indicators, confirmed in three countries or more, of better employment outcomes. The new evidence prompts 14 questions of relevance to schools seeking to ensure their guidance provision is aligned with findings:

Fourteen questions for school leaders in light of confirmed indicators drawn from longitudinal analyses

1. Does your school help all students through secondary education to engage regularly with people in work through career fairs and especially career talks?
2. Does your school have a programme of workplace visits and/or job shadowing which enables all students to critically investigate workplaces for themselves?
3. Does your school teach students how to apply for a job, including interview practice?
4. Does your school help students to reflect on their existing and planned education and training choices in light of what they are learning about their career ambitions and the requirements of desired employment?
5. Does your school know if students are engaging in career conversations about their career plans?
6. Does your school have a policy to encourage and enable a culture of career conversations?
7. Does your school have confidence that all students will have first-hand experience of work before leaving secondary education?
8. Does your school give all students the opportunity to experience work of interest for themselves on two or more occasions?
9. Does your school help students to prepare for and reflect on their first-hand experiences of work?
10. Does your school know what the occupational expectations of your students are?
11. If students are uncertain, does your school they have a process for investigating what is behind the uncertainty?
12. Does your school know how ambitious your students are and have policies in place to encourage and enable high ambitions?
13. Does your school know if your students' occupational and educational plans are aligned?
14. Does your school know if your students are able to see a clear relationship between their educational experiences and later employment outcomes?

Understanding what works in career guidance

For researchers to understand what works in career guidance, they need to follow students through education and then into the world of work. Studies inevitably take a long time and need to be designed in such a way that will allow comparison of students (who are largely similar in terms of the factors that are best known to influence employment outcomes, such as academic achievement, gender, social backgrounds) who take part in specific career development activities to be reasonably compared with peers who do not. There are two main ways to do this. One is through Randomised Controlled Trials (RCTs) where experiments are set up during school years with two comparable cohorts followed into adulthood. These studies need patience, a lot of participants and are relatively few in number.

An alternative is to use data from national longitudinal surveys. These cohort studies are created normally by governments to follow large numbers of young people from schooling into adulthood, exploring the potential long-term impacts of different aspects of their lives. Where such studies ask students about their teenage participation in career development activities and include later questions about employment outcomes, it is possible to test to see if strong associations are found. Statistical controls ensure that researchers can take account of the factors that are best known to influence employment outcomes. While the problem with RCTs is that you have to wait a long time for the results to come through, with longitudinal surveys, inevitably the evidence will be at least 5-10 years old and often older. Researchers too have to rely on questions devised many years earlier. That means that the insights into teenage career development are by no means perfect, but offer a series of important insights into teenage lives that collectively tell a story of why it is that some students do better later on in work than peers who are otherwise very similar in terms of their academic abilities and personal and social characteristics. For full details of the project, including methodologies and results, visit <https://www.oecd.org/education/career-readiness/>

Using longitudinal studies to understand what works in career guidance: what has been learned?

In the OECD Career Readiness project, the existing research literature was first looked at to see what conclusions other researchers had reached when they looked at longitudinal studies. This existing work overwhelmingly relates to studies in Australia, the United Kingdom and the United States. New analysis was then undertaken to look at the association between teenage participation in career-related activities, experiences and attitudes and better employment outcomes. By better outcomes, evidence was looked for of higher earnings, lower unemployment rates and greater career satisfaction. In the end, new evidence from available datasets in 10 countries: Australia, Canada, China, Denmark, Germany, Korea, Switzerland, United Kingdom, United States and Uruguay. Overwhelmingly, secondary school students responded to career-related questions at ages 14-16 and then typically ten years later, shared information about their employment outcomes.

The surveys varied a lot in terms of how many questions they included that were useful for analysis and at times there were challenges in comparing between the datasets because questions were asked in different ways. Overall, the studies showed some clear patterns in what can be expected to work in career guidance. Indicators were confirmed where a career-related activity, experience or attitude was found to be associated with better employment outcomes in adult life in three or more countries after other factors likely to influence success in work were controlled for statistically. It is likely, because of the way that the comparisons were done, that the study underestimates the true extent of the relationships found.

The core elements of career guidance: exploring, experiencing, thinking

In all, sufficient evidence was found to confirm eleven indicators of teenage career readiness which were grouped into three themes related to teenage career development: exploring, experiencing and thinking about potential futures in work. Three potential indicators were also identified, where the evidence is not yet strong enough to confirm the indicators.

As noted, in using longitudinal data, it has to be accepted that answers are not always available for every desirable question. For example, surveys rarely ask students about their experiences talking with career advisors/guidance counsellors. So, the results shared here should not be seen as a comprehensive description of effective practice. Rather, the results highlight core elements of practice that are frequently associated with better outcomes around which a coherent and structured guidance programme can be built. Drawing on initial insights from the academic literature, confirmed indicators are clustered across three themes.

Table 1. Confirmed international indicators of teenage career readiness

Exploring the future	Experiencing the future	Thinking about the future
Engaging with people in work through career talks or job fairs	Part-time working	Career certainty
Workplace visits or job shadowing	Volunteering	Career ambition
Application and interview skills development activities		Career alignment
Career conversations – including, with teachers		Instrumental motivation towards school
Occupationally-focused short programmes		

In addition, partial evidence was identified linked to three indicators: school-based career reflection activities, work placements and career originality.

Exploring potential futures in work: in-school activities that are associated with better employment prospects

Where students explore their futures with other people, notably in school, better employment outcomes are commonly identified. This is one of the most important findings from the study. Previously, very little research had used longitudinal data to find out whether typical career guidance activities are associated with higher earnings, lower youth unemployment and/or greater career satisfaction. The first two indicators discussed here both relate to guidance activities that are enriched by the engagement of employers and people in work. Such employer engagement is widely seen as a required element of effective guidance (Cedefop; European Commission; ETF; ILO; OECD; UNESCO, 2021^[3]). Studies on the role of employer engagement in guidance emphasise the importance of interactions being perceived as authentic; frequent and often mandatory; begun early in school life; personalised; and contextualised by guidance counsellors (Mann, Rehill and Kashefpakdel, 2018^[4]); (OECD, 2021^[5]). This is because engagements with employers are often effective in broadening, challenging, clarifying and confirming the career plans of students. People in work, if seen as authentic, are well placed to offer students insights that are difficult to ignore. For a wider discussion of the role of employers in guidance and how their contributions can be optimised, see the Policy Brief "[Getting the most out of employer engagement in career guidance](#)".

Schools working with employers

Employer engagement in guidance includes both in-school activities, such as career talks, and those which take place on employer premises, such as workplace visits or volunteer work. Interactions with members of the economic community are well placed to offer students new and useful information and experiences which are difficult for schools to replicate without employer participation. Such encounters can be expected to broaden and inform career plans and help students develop access to social networks and to gain experience in technical and employability skills valued by employers.

Box 1. SpeedMeets (New Zealand)

In New Zealand, many schools operate [SpeedMeets](#) where students aged 16-18 meet with employers in a carousel format, discussing opportunities for work placements, apprenticeships and ultimate employment. If student and employer are happy to follow up, contact details are exchanged.

Indicator: Engaging with people in work through career talks or job fairs

Evidence is now available from four countries (Australia, Canada, United Kingdom and Uruguay) that teenagers who take part in job fairs and career talks (where employee volunteers speak with students about their jobs and how they were secured) can expect better employment outcomes. In all, seven studies internationally include evidence on these activities and four find evidence of beneficial outcomes. A number of studies have looked at student participation in career talks with employers and people in work. They find that the more encounters students have, the more the benefit in adulthood that can be expected, especially if, as teenagers, they found the experiences to be useful (for a summary of the evidence, see (Mann, Denis and Percy, 2020^[2]) p. 66-69). As most students tend to focus on a small number of well-known career ambitions (typically half of students in OECD countries say they work in one of just ten popular occupations by the age of 30) and preconceptions can easily get in the way of career exploration, mandatory participation in such activities at a younger age can be expected to help deepen career thinking.

Repetition of these activities through secondary education will address the fact that career thinking is dynamic, often changing much through adolescence. It is an implication of the study that every school year, students should have the opportunity to engage with professionals in multiple occupations through first-hand interactions. They provide an important opportunity moreover to help students see the relationships between their education and later imagined lives in work, underpinning student motivation.

Job fairs should be managed closely because students can avoid directly engaging with people in work. One alternative which has been seen to be particularly effective is to use the career carousel format for career talks, inviting people in work into school to talk with students individually or in small groups about their jobs, rotating around tables rather than having students passively addressed (Rehill, Kashefpakdel and Mann, 2017^[6]). In many countries during the pandemic, career talks and job fairs have been delivered online.

Key question 1: Does your school help all students through secondary education to engage regularly with people in work through career fairs and especially career talks?

Indicator: Engaging with people in work through workplace visits or job shadowing

A further way that schools can work with employers to enhance outcomes for students is through visits to workplaces. In all, six studies were reviewed that looked for evidence of better employment outcomes linked to teenage participation in workplace visits or job shadowing and four (in Australia, Canada, Korea

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and the United States) found evidence of positive associations. Typically, questionnaires do not ask about the frequency or other characteristics of such visits. It is likely however, that visits are more effective where students are prepared to reflect on these experiences as learning opportunities, informing their own career thinking and understanding of how work is organised. Job shadowing which often lasts one to three days, and involves students individually or in small groups following one or more employee volunteers through their working days, offers important opportunities to enhance career thinking. With fewer employers directly hiring school leavers in many countries, job shadowing can be seen to facilitate an investigative mindset, helping students to confirm (or challenge) their decision-making about future plans.

Key question 2: Does your school have a programme of workplace visits and/or job shadowing which enables all students to critically investigate workplaces for themselves?

Indicator: Application and interview skills development activities

The Career Readiness project finds evidence of long-term benefits in three countries (Australia, Canada and the United Kingdom) linked to activities linked to participation in activities like learning how to complete an application form, develop a CV or résumé or practice interview skills. In all, four studies have been identified that explore the relationship and three find that the activity is associated with better outcomes for all students with the fourth (in Germany) finding such a relationship, but only for girls. It is likely that students who take part in such activities are benefitting in two main ways. Firstly, they can be expected to be learning new skills about how the labour market works and how they can best present themselves to potential employers. Here, effective programmes will ensure that students learn that different types of employer look for different attributes in a recruit and how they can present themselves in different ways to optimise chances of success in job hunting. In Finland, final year vocational school students have undertaken a [twenty hour preparatory course](#) that includes a forum for discussions with employers about how they recruit. [Studies](#) show the course to be linked with better economic and psychological outcomes in later employment. Secondly, it can be expected that such exercises will encourage students (if well supported in so doing) to reflect on their achievements to date, in and out of school, and what they can anticipate achieving later on in light of the likely requirements needed to access desired occupations. [Research](#) into such recruitment-focused activities demonstrates that they are considered more effective by students and guidance counsellors if undertaken with employee volunteers who have first-hand experience of recruitment. They will help students to see feedback as being authentic. For schools, an overall aim will be to demystify hiring processes. For further details about how schools can help prepare students for future recruitment, see the Policy Brief "[Getting a job: How schools can help students in the competition for employment after education](#)".

Key question 3: Does your school teach students how to apply for a job, including interview practice?

Key question 4: Does your school help students to reflect on their existing and planned education and training choices in light of what they are learning about their career ambitions and the requirements of desired employment?

Indicator: Career conversations describe young people talking about their career plans with another person. In the Career Readiness research, evidence was identified from four countries (Australia, Canada, United Kingdom and the United States) showing students who agreed that they had had career conversations could expect to do better in employment later on. In all, of ten studies are known to have looked for the relationship, seven from the four countries find evidence of a positive association. Studies focus on conversations which can be considered as relatively informal that take place with subject

teachers, family members and friends. Career conversations can be expected to provide benefit in three potentially important ways. They show, to at least some extent, that a student:

- is engaged in thinking about their future plans (an important indicator in its own right - see below);
- is gaining opportunity to learn information that is new and useful to them;
- and, are accessing some social support as they seek to make important decisions about their futures.

While it might be expected that all young people by the age of 15 have taken part in a career conversation, surveys show that this is not the case (Career Ready). The OECD PISA study for 2018 shows that one in six students have not talked to anyone about a job they would like to do when they finish education – with lower achievers and the most disadvantaged being least likely to do so. Many students appear to demonstrate reticence. (Hart, 2016^[7]), for example, finds that one quarter of a sample of British students surveyed have career ambitions that they have never shared with anyone else.

Dutch research shows that schools can help create a culture where two-sided conversations take place, where students feel able to speak their minds and to talk about their emotional feelings as well as seeking out information. Short training programmes can help all staff, including subject teachers, to learn how to hold more effective career conversations (Kuijpers and Meijers, 2017^[8]). Parents can also be encouraged to participate in career conversations at home and draw on their own connections and students encouraged and prepared to initiate discussions when they encounter people in work. For more information, see the Policy Brief: “Career conversations: why it is important for students to talk about their futures in work with teachers, family and friends”

Key question 5: Does your school know if students are engaging in career conversations about their career plans?

Key question 6: Does your school have a policy to encourage and enable a culture of career conversations?

Indicator: occupationally-focused short courses

Additionally, some education systems (notably in Australia, Canada and the United States) allow students to pursue occupationally-focused short courses within programmes of general education. In all, 14 from 17 studies from these three countries finds evidence of better outcomes. Such programmes tend to cover one to two days a week at ages 15-18 and include extensive work—based learning within a curriculum that is strongly work-related. More attractive programmes will include authentic insights into related professions and will be linked to pathways, such as apprenticeships and higher vocational study, that will allow students to follow their interests after completing secondary schooling.

Box 2. A model for employer engagement in guidance.

The WE3 continuum was developed by Australian analyst Dave Turner and implemented by some New Zealand schools and provides a model for how engagement with employers can effectively develop through education.

Work Exposure Activities that present ideas, information and concepts about the world of work and career development.	Work Exploration Activities in which young people actively explore and investigate the world of work.	Work Experience Activities that offer young people close and more sustained opportunities for observation and participation in one or more workplaces.
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<p>Largely aimed at young people aged 10 to 14.</p> <p>Typical activities include:</p> <ul style="list-style-type: none"> discussions of parental occupations career talks from people in work about the jobs they do and the value they find in them discussions of the gendered character of work workplace visits integration of workplace examples within related curricula 	<p>Largely aimed at young people aged 13 to 16.</p> <p>Typical activities include:</p> <ul style="list-style-type: none"> career talks from people in work about the jobs they do and how to access them student research into specific occupations, access to them and their likely future characteristics development of CV writing and interview skills with employee volunteers job shadowing discussions (career conversations) with people in work about the future development of occupations 	<p>Largely aimed at young people aged 16 to 18.</p> <p>Typical activities include:</p> <ul style="list-style-type: none"> community and workplace based work placements, undertaking supervised work for one week work shadowing focused around specific research questions student enterprises supported by employee volunteer coaches student work-related projects addressing local community challenges with volunteer coaches employer forum organised by students to bring together students and employers to discuss expectations and opportunities
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Turner, D. (2020), Work exposure, work exploration and work experience - continuum and activities, D J Turner consulting and Eastern Bay of Plenty Economic Development Agency, <https://tinyurl.com/The-WE3-Continuum-August-2020>.

Finally, some evidence was identified within the study in relation to school-base career reflection activities, including career questionnaires and career classes. In general, evidence here is limited, largely due to a lack of data for analysis. This is not to say lack of evidence means that such activities should not be undertaken and schools have opportunity to review wider guidance provision in light of the confirmed international career readiness indicators.

Experiencing potential futures in work

The Career Readiness project reviewed evidence with regard to three activities whereby students have the opportunity to gain first-hand experience of undertaking tasks within a workplace. Two indicators were confirmed by international evidence: teenage volunteering and part-time working. Evidence was only partially identified with regard to work placements. For a discussion what has been learned through the project with regard to teenage experience of work, see “Experiencing the workplace: why it is important for teenagers to have experience of work while still in secondary school and how to optimise the benefits.”

Indicator: Volunteering

Nine existing and new analyses from longitudinal surveys related to teenage school-age volunteering were reviewed with evidence of positive associations of better outcomes in later employment found in eight studies from four countries (Australia, Canada, United Kingdom and the United States). Over the last five years, considerable new evidence has emerged about such positive associations. One important question to ask about volunteering is whether the benefits associated with it say more about the person who chooses to volunteer than it does about the experiences in which they take part. One US study follows both teenagers opted into a volunteer programme and those who were required to volunteer. It finds that both groups go on to earn more than comparable peers in the years after secondary education (Kim and Morgül, 2017^[8]). This suggests that students can expect to take value from the experience. Often student volunteers will undertake tasks similar to ones that people are paid to do and engage with paid employees (for a summary of the research literature, see [Career Ready?](#)). In some countries, students volunteer in occupational areas linked to career ambitions or school subjects of interest.

In PISA 2018, students from 21 countries provided information on whether they had undertaken voluntary work. On average, 48% from participating OECD countries agreed that they had.

Indicator: Part-time working

There is a much longer history of research studies looking for evidence of long-term impacts linked to teenage part-time working. In all, 27 new and existing studies were identified of which 20 were found in Australia, Canada, United Kingdom and the United States to find beneficial associations in later employment. A number of studies look into the number of hours worked and it does seem clear that where students work more than 10-15 hours a week they can expect their academic studies to suffer, potentially making their career plans more difficult. Better outcomes appear to relate to more regular employment as well. As with volunteering, students can undertake a wide range of activities in work, including many positions of responsibility of relevance to later employment. (McKechnie, 2014^[9]), for example, drawing on data from a large-scale Scottish research project, find it to be commonplace for working students to:

- cooperate with colleagues
- deal directly with customers
- spend time reading, writing and administering paperwork
- use equipment such as cash registers and computers
- work with tools and machinery
- and, for a sizeable minority, supervise/train others.

Box 3. Compulsory volunteering in secondary school (Canada & United States)

In many education systems in Canada and the United States, volunteering is a requirement of high school graduation. In some jurisdictions, such as Washington DC, students have been helped to find volunteering opportunities linked to subjects of study – see [*Experiencing the workplace: the importance and benefits for teenagers*](#).

Experiences of work: what is desirable?

An implication of the study is that all students should have some first-hand experience of what it is like to work well before they leave secondary education. Part-time working and volunteering present two opportunities for students to develop their technical skills, to build social networks, to learn about the culture of work and to gain insight into their own abilities, preferences and long-term career interests. Such labour market participation is associated as well with the development of employability skills such as communication, problem solving and showing confidence in dealing with unfamiliar situations (Mann, Denis and Percy, 2020^[2]). Consequently, schools should embrace volunteering and part-time working (if the hours are not excessive) and help students to reflect on what they are learning through these experiences about themselves and how they can be of long-term use when it comes to applying for full-time work. Often, students need help in understanding how the responsibilities they take on can provide potential employers with confidence that they will be able to demonstrate the responsibility, adaptability and personal effectiveness that they seek.

Box 4. Work placements

In many countries, schools help students in general education to gain experience of the workplace through short one or two week work placements. Perhaps surprisingly, the evidence is very limited on whether these can be associated with better employment outcomes. Relatively few studies have been undertaken. Positive relationships have been identified in two countries, Germany and the United Kingdom. Qualitative studies show that students can have very different responses to their placements: they can be highly valued by students or seen as a complete waste of time (Jones, Mann and Morris, 2016^[9]). Benefits are likely to be optimised if students are well counselled before undertaking a placement, are helped to find a placement in an occupational area of interest and undertake placements both in lower secondary (before the narrowing of academic options) and upper secondary (before entry to the workforce for many students). See “Experiencing the workplace: why it is important for teenagers to have experience of work while still in secondary school and how to optimise the benefits”.

Key question 7: Does your school have confidence that all students will have first-hand experience of work before leaving secondary education?

Key question 8: Does your school give all students the opportunity to experience work of interest for themselves on two or more occasions?

Key question 9: Does your school help students to prepare for and reflect on their first-hand experiences of work?

Thinking about potential futures in work

One of the most interesting findings from the Career Readiness project relates to how often teenage career thinking can be associated with better employment outcomes in adulthood. A rich research literature has highlighted the significance of teenage career plans (Mann, Denis and Percy, 2020^[2]); (Covacevich et al., 2021^[10]). Overall, studies suggest strongly that ambitious students who can articulate a plan for their future and who understand how it relates to their education can expect to do better later on in life.

As highlighted above, students can be very reluctant to share their plans for the future. Students have a lot going on in their lives, some more than others, and trained career counsellors will be well placed to draw out thinking and focus students encountering immediate difficulties on the importance of longer term planning. This is also the reason why career-related learning activities should begin young. Childhood and adolescence is a period of self-discovery. It takes time to fully explore potential careers and to challenge socially-derived assumptions and ingrained stereotypes about what is reasonable for an individual to pursue. Recent OECD analysis has demonstrated for example that career thinking is highly shaped by gender from as young as five years old (OECD, 2021^[11]). Consequently, if the aim of career guidance is to enable students to take responsibility for their transitions, it is too late to begin at the end of

Box 5. Career journals (Bulgaria)

In Bulgaria, some schools encourage students to maintain a ‘career journal’ to keep track of, and write down, what they might like or might not like as they discover new career interests (Covacevich et al., 2021^[10]).

lower or upper secondary education. Effective provision will begin in primary school, helping students to take their first steps in broadening and raising aspirations and building their understanding of the connection between the classroom and the workplace.

Indicator: Career certainty

Many longitudinal studies ask teenagers to name the type of job they expect to have when 25 or 30 years old. If students do not name such a job, they are considered by analysts to be uncertain. Across the OECD, one quarter of students at 15 can be considered to be uncertain. Where this is the case, studies in Australia, Canada, Denmark, Switzerland, United Kingdom and the United States find that it relates to worse than anticipated employment outcomes later on. In all, 15 out of 20 studies reviewed, typically looking at teenage attitudes at age 15, find such a relationship. It should not be interpreted that an occupational expectation should be fixed. Rather, students who can name an anticipated adult occupation can be seen as providing some evidence that they are attempting to visualise a future for themselves. Their job plan may change from week to week, but the important thing is that they are asking themselves (and/or being encouraged to ask themselves) the question. Only after identifying a job goal, can they systematically explore what they would need to do to achieve it. In such a way, a sense of personal agency is developed.

Key question 10: Does your school know what the occupational expectations of your students are?

Key question 11: If students are uncertain, does your school they have a process for investigating what is behind the uncertainty?

Indicator: Career ambition

Studies also show that higher levels of ambition for the future link to better outcomes even if account is taken of the actual academic ability and qualifications of students. Studies from Australia, China, Korea, Switzerland, United Kingdom and the United States all highlight this association. In all, 15 out of 19 studies reviewed identify the relationship. Career ambition tends to be measured in a simplified manner: Are students planning on attending tertiary education? Do they plan on working as a professional or in a managerial role¹? However, insights of value are still available. In the Career Readiness study, focus was solely on occupational ambitions. More ambitious students, studies argue are likely to value education higher, staying in learning for longer before entering the jobs market (Schoon and Polek, 2011^[12]). The OECD PISA study helps us to understand the ways in which ambitions are shaped by social background. In many countries, students from more disadvantaged backgrounds who achieve well on the PISA academic assessment (a good sign of the ability to do well in university education) have lower ambitions than their peers who are socially more advantaged, but less academically able (Musset and Mýtna Kureková, 2018^[13]). Across the OECD, as recorded by PISA 2018, 62% of 15 year olds expressing an occupational ambition *expected* (not hoped or desired) to be working in a professional or managerial role compared to 53% in 2000.

Key question 12: Does your school know how ambitious your students are and have policies in place to encourage and enable high ambitions?

¹ As defined within categories 1 or 2 in the [International Standard Classification of Occupations](#) (ISCO).

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Indicator: Career alignment

Many studies show that where students have both high career ambitions and high educational plans (planning to work as a professional or in a managerial role *and* planning to attend tertiary education), they will do better in work than comparable peers who effectively underestimate the education typically required to achieve their job plan – even after controlling for academic achievement. Such misaligned students are seen to be experiencing worse outcomes than would be expected in Australia, Canada, China, Korea,

United Kingdom and the United States. In all 9 out of 11 studies reviewed identify relationships with employment outcomes. For schools, there is consequently a simple test: ask student to describe both the type of job they expect at 25 or 30 and the highest level of education or training they plan to achieve. If they are misaligned, this suggests students some confusion and that students have more work to do in understanding what they will need to do to achieve their career goals. Across the OECD, evidence from the PISA study shows that on average 20% of students across the OECD articulate plans for their future that can be classified as misaligned. However, this average hides important differences. On average, the plans of one in three of the most socially disadvantaged can be classified as misaligned, compared to one in ten of their most advantaged classmates. Lower achievers on the PISA academic assessments are also much more likely to be misaligned than their higher achieving peers.

Box 6. Compulsory careers research

In [France](#), some schools require students in lower secondary to research careers related to topics of study, using publically available labour market information to research typical qualifications required to access employment.

Key question 13: Does your school know if your students' occupational and educational plans are aligned?

Indicator: Instrumental motivation towards school

Finally, instrumental motivation describes a situation where a student is able to draw a connection between the education they are engaged in and a potential future in work. It is tested for by seeing how students respond to survey questions like 'Trying hard at school will help we get a good job' and 'School is a waste of time.' Evidence from Australia, Canada, Denmark, United Kingdom and the United States illustrates the relationship between better outcomes in employment and such teenage attitudes towards the value of schooling. In all 13 out of 15 studies reviewed found some relationship between a more positive attitude towards the extrinsic value of education and better employment outcomes. One common strategy to increase instrumental motivation is for schools to integrate work-related insights into the curriculum, drawing on real world examples to underpin teaching and learning and bringing people from the world of work into the classroom to provide personal illustrations of the connections.

Key question 14: Does your school know if students are able to see a clear relationship between their educational experiences and later employment outcomes?

Box 7. Career originality

One potential future indicator which has not as yet been confirmed relates to the originality of a student's plan for the future. As noted, around half of students across OECD countries expect to work in one of ten jobs by the time they are 30. The other half of students name one of hundreds of different

occupations. There is some evidence from Australia and Denmark that more original thinking is associated with better outcomes later on (Covacevich et al., 2021^[10]) - and this makes some intuitive sense. The most popular careers chosen by young people are often among the most visible in their lives: doctor, nurse, teacher, police officer. This may suggest less consideration is being given to career plans than is the case with more 'original' career thinkers. However, in Canada the relationship is reversed and better earnings are associated with less original plans. For schools, the priority is to encourage students to name the type(s) of jobs they anticipate in the future and from that basis, discussion can begin about what such work really entails, what needs to be achieved to secure such employment and related careers that may be more accessible and desirable. Encouraging students to name their job ambitions is also a means of identifying the role that stereotyping by gender and other personal characteristics might be playing in shaping career thinking, whether students are aware of attractive local employment and rapidly growing occupational areas, such as 'green jobs.' Consequently, schools may also want to compare the ambitions of students within a year group, but also against national averages. Further research on this potential indicator is welcomed and anticipated.

The relationships between exploring, experiencing and thinking: creating a virtuous circle

The OECD PISA study highlights the way in which participation in guidance-related activities can be seen to have positive associations with the career thinking of students. If the ultimate goal of career guidance is to provide the tools and resources that underpin personal agency, helping students to confidently visualise and plan their futures through education into work, common place activities and experiences can be seen to positively influence thinking across the four confirmed attitudinal or 'thinking' indicators. It can also be imagined moreover, that more mature career thinking will shape more effective engagement with guidance activities, providing students with a better frame of reference for making sense of their guidance opportunities. Through a virtuous circle, students can be seen to be becoming more informed and so more sophisticated career thinkers, identifying stepping stones within education and training towards their ambitions, developing fall-backs and alternatives, and learning how their day-to-day learning has real meaning for increasingly complicated educational pathways.

Table 2. Statistically significant relationships between participation in career-related activities and more beneficial career-related thinking.

OECD PISA 2018.

Activity/experience	Career certainty	Career ambition	Career alignment	Instrumental motivation
Career advisor	✓ ✓	✓ ✓	✓	✓ ✓
Career conversation	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Questionnaire	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Research internet	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Job fair	✓ ✓	✓	✓	✓
Workplace visit	✓ ✓	✓	✓ ✓	✓
Volunteering	✓ ✓	✓ ✓	✓ ✓	✓
Part-time working	✓ ✓	✓	✓	✓
Work placement	✓ ✓	✓	✓	✓

Note: Ticks represent statistically significant associations (at 10%) between participation in career-related activities and more beneficial levels of the four confirmed career thinking indicators.

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Source: OECD PISA 2018 Database - <https://www.oecd.org/pisa/data/2018database/> (accessed on 28 January 2020).

The importance of guidance counsellors

While in many schools guidance counsellors have important roles to play in enabling student participation in guidance activities, they also have an essential role to play in encouraging students to plan for and reflect on activities and experiences. Students vary considerably in the confidence with which they visualise and plan their futures and the extent of support that they can expect from outside of school. Some students will need greater support than others and regular interactions with skilled counsellors will help bring expectations and assumptions to the surface, allowing more personalised approaches to be developed.

Limitations of the study

While the study brings considerable new evidence into the public domain about the effectiveness of teenage career-related attitudes, activities and experiences, it does contain some important limitations. Inevitably, the data is old. Any longitudinal survey that reports on adult experiences linked to teenage lives will report on school-age activities from at least ten years ago, often longer. Longitudinal surveys also vary substantially in terms of the questions asked of respondents. The findings presented by the Career Readiness project represent a partially obscured view into the lives of young people in multiple countries. Relatively little new information for example has become available about more effective delivery methods. Schools are encouraged to make use of indicators in both assessing the breadth of guidance provision and to review the impact of activities and experiences, delivered in different ways, on more mature career thinking.

The bottom line: students who actively explore, experience and think about their futures in work while still in secondary education can expect better employment outcomes in adulthood

The Career Readiness study shows that:

- better employment outcomes are associated with 11 confirmed indicators of teenage participation in career-related activities, experiences and activities
- 14 questions can help schools to enhance provision in light of the findings

Career Readiness in the Pandemic

The OECD Career Readiness project provides policy makers and practitioners with evidenced guidance on how schools can best prepare young people for employment during a period of economic disruption. The project makes particular use of the results from the 2018 round of PISA and new analysis of national longitudinal datasets in ten countries.



For more information

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See: [Career Readiness in the Pandemic](#) for a range of short guidance reports on different aspects of career guidance including career conversations, workplace experiences, getting the most out of employer engagement and recruitment-focused activities such as CV preparation and interview practice.

The three following working papers from the Project review existing evidence and introduce new evidence into the public domain:

- *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/10.1787/02a419de-en](#)
- *Thinking about the future: Career readiness insights from national longitudinal surveys and from practice*, OECD Education Working Papers No. 248, OECD Publishing, Paris, <https://doi.org/10.1787/02a419de-en>
- *Career ready? How schools can better prepare young people for working life in the era of COVID-19*, OECD Education Working Papers No. 241, OECD Publishing, Paris, <https://doi.org/10.1787/e1503534-en>

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This report was realised by the Career Readiness team at the OECD with the support of the JPMorgan Chase Foundation. The views expressed in this report should not be taken to reflect the official position of the JPMorgan Chase Foundation.

