Do young people feel ready for... the future of work?
What do young people think about the future of work?

WorldSkills and the OECD have joined forces to better understand the attitudes of young people when it comes to future technologies, their perceptions about how technological change will impact their work opportunities, and whether they feel if they are getting enough support from schools to prepare them for the future.

This survey aims to fill the gap surrounding international comparable data on perceptions on the future work. Through the OECD campaign “I am the future of work” and WorldSkills Conference 2019 in Kazan, the findings are being promoted with stakeholders to feed the debate and positively influence policies on skills and education for a future that works.

19 countries
The respondents to the survey (conducted by ONEPoll) are young people at the end of general education and VET programmes from 19 “G20” countries. In addition, 1,488 samples were collected through WorldSkills Members who support the research by sharing the survey with their networks: Australia, Canada, France, Japan, United Kingdom, and United States of America.

18 - 24 yrs
The survey covered young people aged 18-24 years old.

15,000 respondents
The primary target sample size was 500-1,000 per country

Representative
Respondents come from contrasting socio-economic backgrounds and cultural experiences.
The results from online quota-based panel polling were weighted to be representative of each country by age, gender, and whether the respondent had achieved a Bachelor’s degree or higher by the time of the poll. Respondents born outside the country are separated out for future analysis.
"I am the Future of Work" is a people powered initiative by the OECD, which gathers stories, insights and experiences about the way the world of work is changing, and the risks and opportunities it raises along the way. Our message that “the future of work is now” and that our actions today are shaping tomorrow’s world, places the OECD as a positive contributor to an inclusive transition for a future that works. Workers, students, job seekers, employers, and leaders are all included in the future of work. It is time to be part of the conversation.

oe.cd/fow

WorldSkills is a movement. We are a group of people and organizations that advance the shared social objective of increasing the provision of skills. Our Member organizations cover more than two-thirds of the world’s population.

At WorldSkills, we strive to reflect the authentic voice of the youth in all aspects of skills debates. They are our spokespeople, beneficences, and our heroes. We want to capture what inspires and challenges them when it comes to technological changes and the future of work.
Job confidence

Are young people confident that they will be able to find the job that they really want?

Mostly positive outlook
Most young people in the majority of countries that we surveyed are confident that they will be able to find the job they really want, with an average of 50 percentage points more being confident than not (excluding those who are unsure). There is little direct difference overall between students who attended a fee-paying secondary school and those who did not.

Relatively balanced
Young people who are not in education, employment or training are more negative, but still relatively balanced with 35% more feeling confident than not, albeit with 34% who are not sure or have no particular opinion.

Privately educated more confident
Once we “use regression analysis to” control for gender, age and parental higher education achievement, respondents who attend private school are more confident – the equivalent of one in ten respondents saying they “agree” that they are confident rather than “disagree”. This effect halves the scale but remains significant if we control for average differences between countries.

I would feel more confident about my future job if I was assured that technology wouldn’t surpass the average worker, leaving me out of a job and out of pocket.

Survey respondent
41% of young women feel confident about their future working life compared to 50% of young men.

just 2% in Japan felt more confident than not.

One country stands out as markedly more neutral in its overall opinion: in Japan only 2% felt more confident than not, reducing to 0% for those who did not attend a fee-paying private school. Otherwise, countries with slightly fewer confident young people are South Korea, followed by Italy, Saudi Arabia, UK, and Australia.

Students who already had a Bachelor’s degree or higher by the time of the survey are slightly more pessimistic than those who did not, the equivalent of one in 28 respondents shifting from agree to disagree. This effect is no longer present if we control for average differences between countries.
Job confidence

The confidence scale

Net positive job confidence (NPJC)

Net positive job confidence (NPJC) is the sum of those who agreed or strongly agreed that they were confident they would be able to find the job they really wanted, minus those who disagreed or strongly disagreed. Those who were unsure or neither agreed nor disagreed are excluded from the calculation.

<table>
<thead>
<tr>
<th>Country</th>
<th>Full sample in scope</th>
<th>Not attending fee-paying secondary school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NPJC %</td>
<td>Unweighted n</td>
</tr>
<tr>
<td>Argentina</td>
<td>68%</td>
<td>449</td>
</tr>
<tr>
<td>Australia</td>
<td>39%</td>
<td>412</td>
</tr>
<tr>
<td>Brazil</td>
<td>67%</td>
<td>358</td>
</tr>
<tr>
<td>Canada</td>
<td>43%</td>
<td>792</td>
</tr>
<tr>
<td>China</td>
<td>57%</td>
<td>918</td>
</tr>
<tr>
<td>France</td>
<td>43%</td>
<td>872</td>
</tr>
<tr>
<td>Germany</td>
<td>42%</td>
<td>756</td>
</tr>
<tr>
<td>India</td>
<td>67%</td>
<td>732</td>
</tr>
<tr>
<td>Indonesia</td>
<td>69%</td>
<td>443</td>
</tr>
<tr>
<td>Italy</td>
<td>35%</td>
<td>900</td>
</tr>
<tr>
<td>Japan</td>
<td>2%</td>
<td>905</td>
</tr>
<tr>
<td>Mexico</td>
<td>72%</td>
<td>909</td>
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<tr>
<td>Russia</td>
<td>52%</td>
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<tr>
<td>Saudi Arabia</td>
<td>36%</td>
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<td>Simple average</td>
<td>50%</td>
<td>12,790</td>
</tr>
</tbody>
</table>
Global average by activity

<table>
<thead>
<tr>
<th>Current Activity</th>
<th>NPJC %</th>
<th>Unweighted n</th>
</tr>
</thead>
<tbody>
<tr>
<td>In education or training</td>
<td>50%</td>
<td>5,244</td>
</tr>
<tr>
<td>Full time work</td>
<td>57%</td>
<td>3,965</td>
</tr>
<tr>
<td>Part-time work</td>
<td>48%</td>
<td>2,221</td>
</tr>
<tr>
<td>None of the above</td>
<td>35%</td>
<td>1,360</td>
</tr>
</tbody>
</table>

Top 3 countries - job confidence:

- **72%** Turkey
- **72%** Mexico
- **69%** Indonesia

Bottom 3 countries - job confidence:

- **35%** Italy
- **27%** South Korea
- **2%** Japan

28% of young people feel that their skills and knowledge will be in demand.

44% of young people worry that there won’t be much demand for their skills and knowledge in the future.
Technology optimism

Do young people see technology change as an opportunity?

56%

Technology would create job opportunities
Optimism that technology would create job opportunities for them in the future follows a very similar pattern to job confidence. Most young people are optimistic, with 56 percentage points more feeling optimistic than not. Japanese respondents are the most pessimistic again, but are more confident about technology than they are about jobs in general, with 18 percentage points more confident than not.

Technology optimism and Job confidence
Overall technology optimism and key controls (gender, age, higher education qualification, fee-paying school attendance and parental higher education qualification) explains roughly 18% of the variation in respondents’ job confidence. For instance, if we compare people who strongly agree with technology optimism with similar people who are not sure about technology trends and jobs, the former would be more to likely agree with job confidence rather than have a neutral opinion on it.

1 in 20
Women are less optimistic
Those who went to fee-paying secondary school are more optimistic while those who have higher education qualifications are less optimistic, similar to the pattern for job confidence. Unlike with job confidence, however, women are less optimistic – the equivalent of one in 20 switching from “agree” to “disagree” that technology will create job opportunities for them.
Technology optimism

Young people are broadly both confident that they will have to retrain many times during their life (with 43 percentage points more agreeing with this than not) and confident that they will be able to do so (with 53 percentage points more agreeing with this than not). Those who went to fee-paying secondary school and those whose parents have higher education are more confident than those who did not, but there is little difference by age, gender or having achieved an higher education degree.

With the same controls in place, being aware of more technology trends (out of a list of 16 possible emerging technology areas) is closely correlated with technology optimism; although the effect remains modest. Someone aware of 10 more trends than another respondent would be – 20% more likely to strongly agree with the statement on average, rather than disagree (or feel neutral rather than disagree).

Awareness of technology

With the same controls in place, being aware of more technology trends (out of a list of 16 possible emerging technology areas) is closely correlated with technology optimism; although the effect remains modest. Someone aware of 10 more trends than another respondent would be – 20% more likely to strongly agree with the statement on average, rather than disagree (or feel neutral rather than disagree).

Young People are confident

Young people are broadly both confident that they will have to retrain many times during their life (with 43 percentage points more agreeing with this than not) and confident that they will be able to do so (with 53 percentage points more agreeing with this than not). Those who went to fee-paying secondary school and those whose parents have higher education are more confident than those who did not, but there is little difference by age, gender or having achieved an higher education degree.

Tech awareness driving optimism

The survey asks whether respondents have heard of 16 different trends. Each of these is scored 1, allowing respondents a score from 0 to 16 reflecting their tech awareness. These are listed together below with the weighted number of people across the full qualifying sample (i.e. excluding those born in another country) who say they have heard of them:

- AI: 64%
- 3D Printing: 63%
- VR: 63%
- Renewable Energy: 49%
- Advanced Robotics: 49%
- Cloud: 40%
- AR: 39%
- IoT: 33%
- BigData: 25%
- Healthtech: 24%
- Collaborative Networks: 16%
- Fintech: 14%
- Genomics: 14%
- Telematics: 13%
- Generative Design: 13%
- BIM: 11%

63%

of young people see the possibility to work flexibly as an exciting prospect.

41%

of young women feel confident about their future working life compared to 50% of young men.

66%

of young women believe they have what it takes to retrain during their careers because of technological change.
Value of school today

Young people on school
Young people in most countries are not positive about whether school has helped prepare them for adult working life, but only slightly, with a wide range of opinions. The simple average across our countries reveals that 26 percentage points from young people are more positive than negative; dropping to only 20 percentage points more being positive among those who did not attend fee-paying secondary school.

Usefulness of education
This picture varies by country, with some countries having a net negative opinion about the usefulness of their education. The UK has the most critical young respondents, with 20 percentage points more critical of school than favourable; followed by Germany, where 12 percentage points are more critical. Opinions are fairly split in Canada, Australia, South Africa and South Korea. Respondents in Saudi Arabia, Indonesia, India, China and Brazil are most confident with the clear majority of young people feeling positive about the usefulness of school.

Confident
Saudi Arabia, Indonesia, India, China and Brazil are most confident about their education

Split
Opinions on their education are fairly split in Canada, Australia, South Africa and South Korea.

Socio-demographic factors are a clear driver
Across all respondents in our sample, socio-demographic factors are a clear driver of perspectives on the usefulness of school. On average, those in the top of the age group are more critical – the equivalent of one in seven 24 year-olds saying that school did not prepare them very well, compared to 18 year olds who indicated that it prepared them “quite well”.
Women are more critical, compared to those without higher education or whose parents do not have higher education, and those who did not attend fee-paying school. The average effect is equivalent to around one in three of those attending fee-paying schools feeling that school prepared them “quite well” compared to “not very well”. These effects are broadly robust compared to adjustments for the average within each country.

Support from school

Net positive feeling towards the support from school is based on the proportion who responded “Very Well” or “Quite Well” to the question “How well in general do you feel your school/college prepared you for adult working life?”, minus those who responded “Not Very Well” or “Not Well At All”.

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Impact of school-mediated activities

When schools mediate activities with employers or offer career guidance counselling, young people are more likely to be confident they can get the job they really want.

1 in 6

Scale of the association
To understand the scale of the association, it is the equivalent of one in six of the 6% of students who recalled four or more activities with employers “strongly agreeing” that they could get the job they really wanted rather than not being sure. Among the 48% with no such experiences – an association which applies on average, comparing like-for-like across age, gender, higher education achievement, fee-paying secondary schools and parental higher education achievement.

50%

Career guidance counselling
For those with access to career guidance counselling, the scale of the statistical association is the equivalent of one in ten more “strongly agreeing” rather than feeling unsure that they would be able to get the job they really wanted. 40% of those in non-fee-paying secondary schools said they had career guidance counselling, compared to 58% of those in fee-paying secondary schools.

71%

of young people would welcome more help in getting a job while in school.

More career guidance and work experience at school would be beneficial, as would formal education in things like how to get a job, how to write a CV, understanding tax laws, the requirements for opening a business, etc.

Survey respondent
Career guidance at school
For those with access to some form of career guidance at school, broadly defined, there is also a positive correlation. While career guidance (in some form) is very common across the countries surveyed, with 70%+ participating in each country, there is variation in terms of how useful respondents found it. Considering just those from non-fee-paying secondary schools, respondents from:

- from France: 91%
- from UK: 80%
- from Indonesia: 79%
- from India: 58%
- from Argentina: 54%
- from South Korea: 46%

The average provision is perceived as slightly better in fee-paying schools (76% finding it useful) than non-fee-paying schools (70% finding it useful).

Global distribution of number of activities:

<table>
<thead>
<tr>
<th># of activities</th>
<th>No Fee Paying Secondary School</th>
<th>Some Fee Paying Secondary Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero</td>
<td>48%</td>
<td>36%</td>
</tr>
<tr>
<td>One</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>Two</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>Three</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Four or more</td>
<td>6%</td>
<td>9%</td>
</tr>
</tbody>
</table>
Threats and Opportunities

Confidence

I worry that technological change will threaten my prospects of getting the kind of work I would like to get

In UK, Canada, and France, half or more of the respondents do NOT think technological change will threaten their work prospects. Even in these countries, 21% to 27% agree that technological change is a threat.

In USA, Australia and Russia, fewer than half disagree that technological change will threaten their work prospects. In these countries, from 30% to 34% agree that technological change is a threat.

The threat of technological changes is largely, but not entirely, mitigated by respondents’ belief that they will be able to re-train and re-focus their careers in the future. Not everyone believed this, with endorsement varying between 57% in France and 74% in Canada.

I feel confident that I have what it takes to retrain when I am older if my job is automated

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Going to University

Clearly, University is felt to be far more accessible in Russia (where 84% think they may attend in future) than in France (where 17% think they may).

Careers advice

Possibly the largest single concern in this data set is the wide variability of careers advice, both within country and between countries.

67% are happy with the careers advice in the USA
40% are happy with the careers advice in the UK
23% describe their careers advice as poor or terrible in the USA
48% describe their careers advice as poor or terrible in the UK