

Skills that Matter for Success and Well-being in Adulthood

Evidence on Adults' Social and Emotional Skills from the 2023 Survey of Adult Skills



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SKILLS FROM THE 2023 SURVEY OF ADULT SKILLS

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Please cite this publication as:

OECD (2025), *Skills that Matter for Success and Well-being in Adulthood: Evidence on Adults' Social and Emotional Skills from the 2023 Survey of Adult Skills*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/6e318286-en>.

ISBN 978-92-64-80272-8 (print)
ISBN 978-92-64-58969-8 (PDF)
ISBN 978-92-64-78750-6 (HTML)

OECD Skills Studies
ISSN 2307-8723 (print)
ISSN 2307-8731 (online)

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Foreword

In a world marked by rapid technological change, complex global challenges and evolving labour markets, adults need a broad set of skills to thrive. While cognitive skills such as literacy and numeracy remain essential, social and emotional skills – the ability to collaborate, adapt, manage emotions and persevere – are increasingly recognised as critical for success and well-being throughout life.

The 2023 Survey of Adult Skills, part of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), represents an important step forward in OECD's efforts to measure and understand these skills. For the first time the survey included self-reported measures of social and emotional skills, alongside the international assessment of adults' proficiency in literacy, numeracy and adaptive problem solving, offering a more complete picture of the capabilities that shape adults' lives.

This PIAAC thematic report presents new international evidence on how these skills are distributed across populations and how they relate to a wide range of outcomes – from employment and wages to health, life satisfaction and civic engagement. The findings underscore that social and emotional skills complement cognitive ones and independently contribute to adults' success at work and beyond.

The report also calls for renewed policy attention to the development of these skills throughout adulthood. Building and sustaining social and emotional skills can help individuals adapt to change, strengthen social cohesion and foster inclusive growth. Supporting adults in cultivating these skills is therefore an investment not only in individual well-being, but also in more resilient and equitable societies.

This report was prepared by Mila Staneva, under the supervision of Claudia Tamassia (Senior project manager of PIAAC). François Keslair provided statistical and analytical support. Valuable comments were made by OECD colleagues, including Anja Meierkord, Marco Paccagnella, Nate Reinersten, Noémie Le Donné, Hannah Ulferts, Glenda Quintini, Francesca Borgonovi as well as Beatrice Rammstedt from the GESIS – Leibniz-Institute for the Social Sciences. Administrative support was provided by Sabrina Leonarduzzi. The PIAAC Board of Participating Countries (BPC) – co-chaired by Aviana Bulgarelli (Italy, until 2020), Ted Reininga (the Netherlands, until 2021), Katalin Zoltán (Hungary, since 2020) and James Davison (England, UK, since 2021) – steered the development of the project and of the report. Feedback and comments on this report by members of the BPC are gratefully acknowledged.

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Executive Summary

The Survey of Adult Skills provides insights into the information-processing skills essential for effective participation in the labour market and society – literacy, numeracy and problem solving. The 2023 cycle expands this scope by including measures of social and emotional skills: agreeableness, conscientiousness, emotional stability, extraversion and openness to new experiences. This broader approach enables policymakers, researchers and educators to understand how cognitive and social and emotional skills jointly shape life outcomes. The report explores how both types of skills contribute to employment and social outcomes independently from each other and how social and emotional skills relate to education and the acquisition of key information-processing skills. It also documents how social and emotional skills are distributed across the adult population.

Social and emotional skills matter for education and the acquisition of cognitive skills

Data from the 2023 Survey of Adult Skills show that adults' social and emotional skills are linked to their educational attainment and cognitive proficiency. Among the five domains assessed, **openness** and **emotional stability** stand out as consistent, albeit moderate, predictors of **educational attainment**. These skills likely support autonomous learning and independent thinking, which are particularly valuable in post-secondary education. They are also positively related to proficiency in **literacy, numeracy and adaptive problem solving**, above and beyond their impact on formal education. Individuals with high levels of openness use cognitive skills more frequently and are more likely to participate in adult learning, which may contribute to their higher average cognitive proficiency.

In contrast, the associations between educational outcomes and **agreeableness, conscientiousness** and **extraversion** are comparatively weaker and more variable across countries, suggesting a stronger sensitivity to contextual factors. These skills may be particularly relevant in early schooling, where following rules, responding to authority and cooperating with peers are more central to academic success.

Beyond cognitive skills, social and emotional skills play a role in shaping adults' success in work and life

While cognitive skills such as literacy remain key determinants of labour market outcomes, social and emotional skills contribute independently to occupational choices, employment opportunities, wages and job satisfaction. In particular, **extraversion** and **emotional stability** show positive associations with **employment status** and **job satisfaction**, comparable in magnitude to those of literacy skills. Their associations with **wages** are weaker, but significantly positive. These skills seem to matter in all countries, while the role of the other social and emotional skills in employment outcomes tend to be more context dependent.

Beyond their relevance for employment, social and emotional skills also play a role in shaping broader aspects of individual and societal well-being. Higher levels of **emotional stability** and **extraversion** are

consistently related to greater **life satisfaction** and better **health**, while **openness** is positively linked to **volunteering** and **political efficacy** – the belief in one’s ability to influence political affairs. These findings highlight the broader value of social and emotional skills for individuals and society.

Social and emotional skills vary across sub-groups of the adult population

Social and emotional skills differ across socio-demographic groups. Some differences, such as gender differences in agreeableness, are observed consistently across all participating countries and economies, suggesting that similar underlying processes may operate across diverse cultural settings. Other differences vary in both magnitude and direction across countries, indicating that historical context and societal norms also shape the manifestation of these skills. The **most consistent and pronounced differences** are observed between **adults with different levels of educational attainment**, reflecting both the importance of formal learning environments in shaping social and emotional development and the role of social and emotional skills in accessing and succeeding in higher education.

Differences in social and emotional skills by age, gender, parental education and immigrant background are also systematically observed across countries:

- **Younger adults** tend to report higher levels of **extraversion** and **openness**, while **older adults** tend to report higher levels of **conscientiousness** and **agreeableness**.
- **Women** report higher levels of **agreeableness** and **conscientiousness**, but lower **emotional stability** than men in nearly all countries.
- Adults with **highly educated parents** tend to score higher in **openness** and **extraversion**, while adults with **lower-educated parents** tend to score higher in **conscientiousness** in the majority of countries.
- In many countries, **foreign-born adults** report **higher** levels of **openness**, **agreeableness** or **conscientiousness** than native-born adults.

Policies should support social and emotional learning in adulthood

Persistent socio-demographic differences in social and emotional skills call for targeted interventions. A **lifelong-learning, multi-channel approach** that embeds social and emotional learning (SEL) into formal education systems, non-formal learning and workplaces can help strengthen these skills in both youth and adulthood and support groups with lower skill levels.

Policy options toward building such a strategy include:

- developing and adopting an **adult-centred SEL framework** to guide the design of policies and training programmes
- **expanding current SEL policies beyond schools** by integrating them into post-secondary and vocational education pathways
- expanding and formalising **SEL opportunities in non-formal adult learning**, for example, by supporting curricula that explicitly targets SEL and introducing micro-credentials that make SEL achievements visible
- providing **targeted support for disadvantaged groups**, for example, by integrating SEL in early schooling to ensure equal opportunities from the start for all, as well as into language and integration programmes for migrants, active labour-market policies for the unemployed, and adult-education initiatives for the low-qualified
- **supporting SEL in the workplace**, for example, by making SEL an explicit objective of publicly funded workforce development programmes.

1 What are social and emotional skills and why do they matter?

This chapter introduces the concept of social and emotional skills, emphasising the significance of these skills in adults' lives and their relationship with key education, labour market and social outcomes. The chapter argues that these skills will be important for addressing the global challenges resulting from population ageing, advances in artificial intelligence and global migration. Another key focus is the malleability of social and emotional skills – their potential for improvement through targeted policies and interventions. After presenting key concepts and definitions, the chapter describes how social and emotional skills are measured in the 2023 Survey of Adult Skills.

Introduction

Next to cognitive skills, social and emotional skills are an important part of an individual's skill set. Abilities such as self-control, sociability and emotional regulation are essential for mastering many situations at work and in everyday life. Such skills have been shown to significantly influence key life outcomes. A vast body of evidence links them to academic success, higher educational attainment and improved labour market prospects, including better employment opportunities and higher wages. In addition, they predict important non-economic outcomes such as physical and mental health, subjective well-being, and social and political participation. In some instances, the strength of these associations is comparable to that of cognitive skills.

In the future, social and emotional skills will likely become more important for individuals and societies. As artificial intelligence (AI) technology advances, surpassing humans in an increasing number of cognitive skills, social and emotional skills will constitute an important advantage in performing tasks that cannot be performed by machines. Population ageing and the growing demand for elderly care will increase the need for skills like empathy, patience and communication skills. As international migration continues to diversify communities and societies, tolerance, co-operation and open-mindedness will become essential for social cohesion and the functioning of democracy. Moreover, the climate crisis will call for innovative solutions, which will require imagination and adaptability.

Policymakers, educators and researchers have recognised the importance of strengthening people's social and emotional skills. This is reflected in the growing research interest in these skills, ongoing efforts to measure and assess them, as well as policies aimed at integrating them into national curricula. These initiatives have been driven by evidence showing that these skills are malleable. This means that social and emotional skills can be learned, particularly during childhood and adolescence, and can be thus changed through targeted policies and interventions.

The OECD has made important contributions to promoting the development of social and emotional skills. Its International Early Learning and Child Well-being Study (IELS) has explored various cognitive and social and emotional skills of children at the age of five, a crucial stage in human development. The OECD has broadened its Programme for International Student Assessment (PISA) to assess self-efficacy, persistence, intellectual curiosity, meta-cognition and achievement motivation among 15-year-olds. Additionally, the Teaching and Learning International Survey (TALIS) asks teachers on their sense of preparedness in helping students develop such skills. Most notably, the OECD launched the Survey on Social and Emotional Skills (SSES) to assess the social and emotional skills of 10- and 15-year-old students, along with the environments and practices that support their development. The SSES 2023 was carried out in six countries and ten sub-national entities.

The Survey of Adult Skills, part of the Programme for the International Assessment of Adult Competencies (PIAAC), has taken this work one step further by assessing social and emotional skills of adults aged 16 to 65. The Survey of Adult Skills is a large-scale international assessment of adults' proficiency in three foundational cognitive skills – literacy, numeracy and problem solving. These skills are seen as “key information-processing skills” since they are necessary for fully integrating into the labour market, social and civil life, and are relevant to many social contexts and work situations (OECD, 2024^[1]). The first cycle of the survey was conducted over three rounds between 2012 and 2017. In its second cycle, conducted in 2023, the survey expanded its scope to include measures of social and emotional skills. Twenty-nine of the 31 participating countries and economies included a set of items from the Big Five Inventory in the background questionnaire to measure social and emotional skills of adults (Soto and John, 2017^[2]).

This report studies the distribution and impact of adults' social and emotional skills as assessed in the 2023 Survey of Adult Skills. It examines how these skills differ by socio-demographic characteristics such as age, gender and parental education. It also explores how these skills contribute to success in work and life in adulthood, over and above the impact of the cognitive skills measured in the survey. Indicators of life

success include education outcomes (e.g. educational attainment and field of education), employment outcomes (e.g. labour market participation, wages and occupational choice), and various non-economic outcomes (e.g. health, life satisfaction and volunteering).

The Survey of Adult Skills is the one of the few studies that assesses adults' social and emotional skills internationally and combines them with a direct assessment of key cognitive skills. This combination provides valuable insights for policymakers seeking to develop and sustain a skilled adult population. The survey enables a broader perspective of the skills relevant to the economy and society. It helps determine the relative contribution of cognitive and social and emotional skills across different social and economic outcomes. It allows assessing the impacts of social and emotional skills for different social groups and for individuals at different levels of proficiency in information-processing skills, supporting policymakers in the design and implementation of more targeted and effective policies. Finally, it shows how social and emotional skills influence participation in initial education and adult learning, shedding light on the role of social and emotional skills in developing and maintaining key cognitive skills.

This chapter sets the stage for the analyses in this report by discussing the importance of assessing adults' social and emotional skills and examining their distribution and impact. The chapter argues that these skills can support individuals and societies in coping with the global challenges resulting from population ageing, advances in artificial intelligence and global migration. It highlights empirical evidence on the malleability of social and emotional skills as well as on their impact on key education, labour market and social outcomes. After presenting key definitions and concepts, the chapter introduces the Big Five model of personality, which constitutes the theoretical foundation for the items used in the 2023 Survey of Adult Skills to measure social and emotional skills.

The relevance of social and emotional skills in a rapidly changing world

Today's world is diverse, dynamic and uncertain and the future will likely be even more complex. In this context, social and emotional skills are important for navigating change and adapting to new circumstances. Skills such as emotional stability and curiosity help foster a flexible mindset and support constructive responses to new situations, while skills such as empathy and communication skills enable individuals to maintain positive relationships even during challenging times. The following sections discuss how social and emotional skills can support individuals and societies to adapt to the concrete demands of technological change, population ageing and global migration.

The AI revolution

Advances in AI are driving a broad and rapid transformation: Compared to other technologies, AI is applicable to a larger range of human tasks and is evolving fast due to significant investment and research. In some jobs, machines may take over certain routine or cognitive tasks previously performed by humans. More broadly, AI will reshape how work is organised and performed, requiring workers to adapt to new roles, collaborate with intelligent systems and develop different skill sets.

How evolving AI will affect employment will depend on how AI capabilities compare to human skills relevant in occupations. Over the past decade, AI has become faster, less biased and more accurate on a variety of cognitive tasks compared to humans. These include language processing and generation, translation, reasoning, image and speech recognition, predictions and pattern identification. One possible scenario for the future is that AI will take over routine and analytical tasks, while work will increasingly shift towards tasks that involve higher-level cognitive skills as well as social and emotional skills. Concretely, workers may increasingly specialise in tasks such as negotiating, influencing, communicating or persuading, while machines can complement them in other tasks, such as forecasting, automated reporting or quality control.

In parallel, AI is leading to the emergence of new occupations and industries due to the development of new products and services. What makes AI a driver of innovation is its applicability in a variety of sectors and occupations (Filippucci et al., 2024^[3]; Lane and Saint-Martin, 2021^[4]). In addition, AI is increasingly used in research to systemise vast amounts of information and identify patterns in high-dimensional data (Wang et al., 2023^[5]). This makes this technology an “invention of a method of invention” (Cockburn, Henderson and Stern, 2018^[6]).

Social and emotional skills can play a role as a catalyst for AI’s innovation potential. The discovery of potential new uses for AI ultimately depends on human creativity, critical thinking and intellectual curiosity. Moreover, since innovation emerges through interactions between individuals or organisations, social and emotional skills related to communication will become more important. Openness to experience and the ability to adopt diverse perspectives may also gain significance as breakthroughs often occur at the intersection of different fields and industries.

How AI will reshape the world of work remains an open question. What is certain is that workers will need to adapt to new circumstances. This may involve acquiring AI-related skills or reskilling for entirely new professions. Navigating these changes successfully will again require solid social and emotional skills, especially resilience, emotional stability and readiness to learn.

Population ageing

The populations of OECD countries are ageing, and this trend is projected to continue. By 2050, the proportion of people aged 50 and over is expected to increase to 44% (from 37% in 2023), and that of people aged 65 and over to 25% (from 18% in 2023) (OECD, 2024^[7]). Thus, the proportion of older workers in the workforce as well as the population share of older adults in need of care will increase. This will have implications for skills.

A growing share of older workers who retire at a later age would increase the need for up- and reskilling of adults. Governments will need to expand opportunities for lifelong learning and continuing education to meet current and future labour market demands. Older workers will need to improve their skills and learn new skills to remain competitive in the labour market. Social and emotional skills will be important in this context. Especially resilience, emotional stability and openness to experience can support older workers in adapting to the changing demands of occupations.

At the same time, the growing need for elderly care will directly increase the demand for social and emotional skills such as empathy, patience, tolerance and interpersonal communication. These skills will be essential not only for caregivers but also for society at large to foster social cohesion in demographically diverse populations. For their part, older adults will need skills like resilience, extraversion and openness to experience to remain an active part of society.

Migration

Immigration into most OECD countries has increased over the past decades and may well increase further in the future due to conflicts, humanitarian crises, and economic and ecological imbalances around the world. This presents both challenges and opportunities to host countries. Migration diversifies communities both culturally and economically, challenging social cohesion and social trust. However, it also increases the supply of labour in the host country and can contribute to economic growth. A precondition for the latter is that migrants have strong skills that enable them to fully participate in the labour market and society of the host country. Among these skills are knowledge of the local language and skills demanded in the local labour market. Social and emotional skills, such as openness, respectfulness, trust in others, sociability and perspective taking, are also crucial for integrating into a new society. Such skills will be also increasingly important in society at large to maintain cohesion in increasingly diverse populations.

Defining social and emotional skills

Policy and research have used various concepts to describe social and emotional skills. These skills have been referred to as non-cognitive skills, soft skills, 21st-century skills, employability skills, transversal skills, life skills, character skills or personality traits (Jones et al., 2016^[8]). Over time, the term “social and emotional skills” has become widely recognised as an umbrella term for these skills, serving two important purposes. First, it helps distinguish these skills from conventional cognitive skills. While cognitive skills involve the mental capacity to acquire knowledge, and access, interpret and reflect information, social and emotional skills relate to engaging and collaborating with others (*social*) and regulating own emotions and behaviour to achieve goals (*emotional*). Second, the term clarifies that, like cognitive skills, these traits are *skills*. That is, they contribute to individual well-being and socio-economic progress and can be meaningfully measured (OECD, 2015^[9]).

The OECD defines social and emotional skills as: “individual capacities that can be (a) manifested in consistent patterns of thoughts, feelings and behaviours, (b) developed through formal and informal learning experiences, and (c) important drivers of socio-economic outcomes throughout the individual’s life” (OECD, 2015, p. 35^[9]). This definition emphasises that social and emotional skills are relatively stable latent traits that shape how we think, act and feel.¹ They encompass attributes that are highly heritable (such as personality traits, dispositions, beliefs, values, temperament and self-perceptions) but at the same time they are also “learnable” and can be cultivated over time – much like traditional cognitive skills. Their teachability, together with their impact on success in work and life, makes them highly relevant for policy considerations.

The Big Five model of personality

The Big Five model of personality is a framework that subsumes many of the social and emotional skills discussed in the literature. This framework was adopted in the 2023 Survey of Adult Skills and has guided previous OECD work on social and emotional skills.

The Big Five model of personality, also known as the Five Factor Model, emerged from decades of psychological research aimed at identifying the fundamental traits of human personality. It is the result of numerous independent studies that analysed and grouped adjectives related to personality (e.g. “shy”, “talkative”, “compassionate”, etc.) to determine the core dimensions through which people describe themselves and others. These studies consistently found that personality characteristics could be grouped into five broad dimensions, forming the foundation of the Big Five model. The model is thus empirically derived rather than driven by theory. Instead of representing a single strand of research, it represents various and diverse data-driven systems of personality characteristics, integrated into a common taxonomy (John, Naumann and Soto, 2008^[10]).

During the 1990s and 2000s, research on the Big Five model proliferated. Extensive work confirmed its validity and reliability across different types of samples and methodological approaches (McCrae and Costa, 2003^[11]). In addition, numerous studies demonstrated the replicability of the model in different countries, cultures and language contexts (McCrae and Costa, 1997^[12]). More importantly, disciplines as diverse as psychology, sociology, education and economics have found the model to be highly valuable for analytical purposes, effectively predicting outcomes across various life domains (Roberts et al., 2007^[13]). Today, the Big Five framework stands as the most widely accepted and commonly used framework of personality traits.

The Big Five model organises personality characteristics hierarchically into five broad, higher-order “domains” each subsuming several more specific “facet” traits. This offers a parsimonious and efficient, yet detailed account of social and emotional skills. While the domain-level scales have the advantage of high bandwidth, that is, they efficiently summarise a large amount of behavioural information that predicts

a variety of outcomes, the facet-level subscales offer high fidelity, that is, they provide a more precise description of behaviour and can predict specific outcomes with higher accuracy (Soto and John, 2017^[14]).

The Big Five domains are the following (Costa and McCrae, 1992^[15]; John, Naumann and Soto, 2008^[10]):

- *Agreeableness*: refers to a prosocial and communal orientation towards others. Individuals with high levels of this trait have a tendency toward altruism, tender-mindedness, trust, co-operation and modesty. Conversely, those with low agreeableness are more likely to be driven by self-interest and scepticism about others' motives. They are more often competitive and challenging.
- *Conscientiousness*: describes a tendency for impulse control that facilitates task- and goal-oriented behaviour. Conscientious individuals tend to cautiously plan before acting, follow norms and rules and are more capable of delaying gratification. They are more likely to be self-controlled, organised, ambitious, persistent and dedicated in achieving goals. Low conscientiousness is associated with flexibility and spontaneity, but can also mean impulsiveness, procrastination and sloppiness.
- *Emotional stability*: refers to even-temperedness and positive emotionality. Individuals with high levels of this trait are relaxed, comfortable with themselves and able to control their emotions and moods. In contrast, those with low emotional stability have a tendency toward anxiety, depression and temperamental nature.
- *Extraversion*: implies an energetic and action-oriented approach to life. Extroverted individuals show the tendency to seek the company of others, to initiate and engage in activities, to feel comfortable around people. They are more likely to be assertive, dominant, enthusiastic and outgoing. In comparison, individuals with low levels of this trait have lower social engagement and energy levels. They are more likely to prefer solitude and to be quiet and reserved.
- *Openness to experience*: refers to the originality and complexity of one's personality. Individuals with high levels of openness are imaginative, enjoy exploring new ideas, and are open to new experiences. They have a tendency for aesthetic sensitivity and self-exploration. In contrast, individuals with low levels of openness are more likely to prefer tradition, routine and concrete facts over abstract ideas. They tend to be pragmatic and direct.

Each of these Big Five domains represents a spectrum or continuum of behavioural tendencies, rather than a binary categorisation of extreme personality types. Individuals can score higher or lower on each domain, reflecting varying degrees in the expression of the behaviours related to the domain.

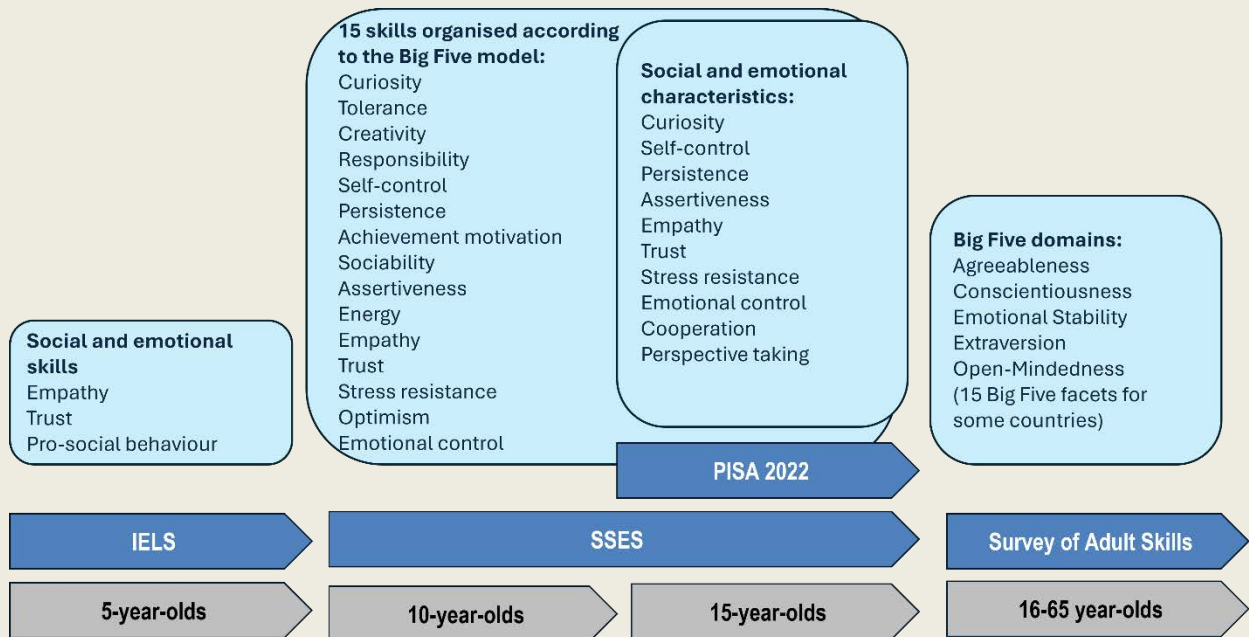
The Big Five domains can be assessed with varying levels of depth. That is, researchers can apply broad or narrow measures to slice down each of the five personality domains into more or fewer facets. For example, past research has identified nine, six, four or three facets per domain (Costa Jr. and McCrae, 1995^[16]; Hofstee, de Raad and Goldberg, 1992^[17]; Saucier and Ostendorf, 1999^[18]). The 2023 Survey of Adult Skills uses the Big Five Inventory-2 (BFI-2) that can be administered in shorter or longer forms (Soto and John, 2017^[2]). Depending on the number of items used in the particular country or economy, the instrument allows for measuring up to three facets per domain (see Box 1.3).

The multifaceted nature of the Big Five model allows it to effectively encompass a wide range of social and emotional skills from other frameworks. For example, many of the so-called 21st-century skills² can be subsumed to one of the Big Five domains (Chernyshenko, Kankaraš and Drasgow, 2018^[19]). In addition, empirical studies demonstrate a significant degree of overlap between the social and emotional skills represented in the CASEL framework³ and the Big Five model (Primi et al., 2016^[20]; Walton et al., 2021^[21]). These studies rely on both a factor analytic, data-driven approaches as well as judgements from experts in the fields of personality psychology and social and emotional learning. Such overlaps led some researchers to argue that the Big Five model can serve as a guiding framework to organise the multitude of social and emotional skills studied in the literature (Martin et al., 2019^[22]; Steponavičius, Gress-Wright and Linzarini, 2023^[23]; Walton et al., 2021^[21]).

Box 1.1. Framing the 2023 Survey of Adult Skills within the broader OECD work on social and emotional skills

The inclusion of the Big Five inventory in the 2023 Survey of Adult Skills constitutes an important extension of OECD's efforts to understand and measure social and emotional skills. Until now, OECD's work in this field has been largely focused on childhood and adolescence, life phases during which social and emotional skills are particularly malleable. In most cases, surveys have assessed these skills as a complement to comprehensive assessments of cognitive skills. An exception is the Survey on Social and Emotional Skills (SSES), where social and emotional skills are the primary focus of the assessment. The 2023 Survey of Adult Skills extends this work into adulthood, enabling a more comprehensive analysis of how social and emotional skills evolve and matter throughout life.

Figure 1.1. OECD studies assessing social and emotional skills



Note: Constructs covered in the International Early Learning and Child Well-being Study (IELS), the Survey on Social and Emotional Skills (SSES), the Programme for International Student Assessment (PISA) and the 2023 Survey of Adult Skills (PIAAC). Note that some PISA assessment rounds have focused on collaborative problem solving, global competence, meta cognition and creative thinking.

Figure 1.1 summarises the approaches taken to elicit social and emotional skills in OECD surveys. The wide range of skills measured in different surveys from respondents at different stages of life – from early childhood through adolescence to adulthood – reflects the diversity of constructs explored in the academic literature and underscores the relevance of social and emotional skills at all ages. In addition, many other OECD studies touch upon aspects of social and emotional skills and social and emotional learning. For example, the Teaching and Learning International Survey (TALIS) assesses teachers' practices aimed at promoting social and emotional learning (OECD, 2022^[24]), while the Education 2040 project views social and emotional skills as a core component of the learning framework for the future.¹

Different surveys have used different concepts and measures of social and emotional skills – such that are most appropriate for the age group covered and the specific purposes of each study. The 2023 Survey of Adult Skills assesses a few broadly defined skill domains through an extra short version of the Big Five

inventory. The parsimony of the measures was an important consideration in the context of PIAAC, as the primary focus of the survey is the assessment of cognitive abilities, and any additional measures had to be carefully balanced against the risk of increasing response times and respondent burden. By contrast, the SSES (and PISA in its 2022 cycle) offer more comprehensive measures of multiple, more narrowly defined skill domains. The measures implemented in the different surveys can all be traced back to the Big Five model as an overarching framework. At the same time, there are important differences across the surveys, in terms of instruments, target population and survey implementation, and no formal link exists to allow for direct comparison of the results.

Most measures of social and emotional skills used in OECD assessments rely on respondents' self-reports, as they are cost-effective, easy to administer and yield consistent results – often providing accurate approximations of objective measures. A notable exception is PISA 2022, which introduced a task-based assessment of creative thinking. This assessment measures students' capacity to generate diverse and original ideas through open-ended, interactive tasks. Closely related to this study, the Platform for Innovative Learning Assessments (PILA) provides digital learning activities with embedded assessments of complex competencies such as self-regulated learning and communication.² The next round of SSES (SSES 2026) will also incorporate a direct assessment of empathy, reflecting recent advances in measurement methodologies in this research field.

Measures of social and emotional skills used in OECD surveys so far primarily focus on typical behaviours – that is, the consistent patterns of thoughts, feelings and behaviours that a particular person tends to apply across different situations and contexts. SSES 2026 will shift this focus to assessing maximum behaviours or capabilities. The survey will focus on what young people are capable of doing rather than on their tendency to behave in certain ways. Although measures of maximum and typical behaviours are positively correlated – individuals capable of a certain behaviour are more likely to develop a tendency toward it – recent evidence shows that maximum behaviour measures offer unique insights and are valuable for predicting important outcomes (Soto et al., 2022^[25]).

OECD surveys generally cover social and emotional skills that are malleable, that is, responsive to policy interventions. However, a recent OECD review has shown that these skills can differ in their degree of teachability (Steponavičius, Gress-Wright and Linzarini, 2023^[26]). For example, while skills such as self-control, assertiveness, empathy and emotional control appear to be highly teachable, empirical evidence suggests moderate degrees of teachability for trust, optimism and perspective-taking. In light of this evidence, SSES 2026 will prioritise skills that have been shown to be particularly amenable to school-based interventions.

The OECD aims to develop a comprehensive understanding and measurement of social and emotional skills across all stages of life. Evidence from OECD surveys and the wider academic community has underscored the importance of these skills for a wide range of life outcomes. This has raised the interest in these skills and has triggered efforts to improve their assessment, to provide more precise, meaningful and policy-relevant measures.

1 See <https://www.oecd.org/en/data/tools/oecd-learning-compass-2030.html> (accessed 14 May 2025).

2 See <https://pilaproject.org/> (accessed 14 May 2025).

For the remainder of this report, the terms “Big Five domains”, “social and emotional skills” and “personality traits” will be used interchangeably. Facet-level skills will be referred to as “Big Five facets” or “sub-domains”. The Big Five personality traits will be considered skills in this report since they are shown to contribute to important life outcomes, can be changed, although being relatively stable over time, and are shown to subsume many of social and emotional skills studied in the literature.

Interpreting results based on Big Five domain and facet skills

Several points should be taken into consideration when interpreting the results of this report.

First, it is important to note that the Big Five is a descriptive model, not a normative one. The model emerged from statistical analysis (i.e. factor analysis) of personality descriptions, rather than from a theory about how people should behave. It does not label specific personality traits as “good” or “bad”. Nor does it assume that having more of a given trait is necessarily better.

In fact, variations in the Big Five domains can carry both positive and negative connotations. For example, high levels of extraversion may be associated with overconfidence and superficial social relations. High agreeableness can lead to submissiveness. High emotional stability might be perceived as indifference, extreme conscientiousness as perfectionism, and extreme openness as impracticality. Conversely, low extraversion may reflect humility and quiet introspection, low agreeableness can signal independent-mindedness, low emotional stability may indicate heightened sensitivity, low conscientiousness can reflect spontaneity and being easy-going, and low openness to experience may suggest a practical and down-to-earth approach.

Moreover, research shows that the same trait can be linked to both desirable and undesirable outcomes across different life domains. Extraversion, for example, is linked to leadership (Judge et al., 2002^[27]) and better employment chances (Izadi and Tuhkuri, 2024^[28]), but also to risky behaviours, such as substance use and gambling (O’Connell, 2023^[29]).

Second, the influence of a given trait on an outcome can vary depending on context or situation. This report presents associations between the Big Five measures and life outcomes at the country level and, in some cases, for specific socio-demographic groups. These relationships may also differ across industries, occupations or fields of study.

Third, the Big Five personality traits are assessed through self-reports, which rely on respondents’ perceptions of their typical thoughts, feelings and behaviours. This approach may introduce bias as some respondents may tend to present themselves in a more favourable light or may not have a clear or consistent understanding of their own behaviour across different situations. In the Survey of Adult Skills, respondents’ answers to the Big Five items are assessed by interviewers, which may further increase the risk of social desirability bias. Furthermore, cultural norms can influence how people interpret and respond to Big Five items, undermining cross-cultural comparability.

Fourth, the results of this report are based on cross-sectional regression analyses and may not reflect a true causal relationship between social and emotional skills and life outcomes. Consequently, the reported relationships should be interpreted as associations rather than causal impacts of these skills.

Social and emotional skills as drivers of key life outcomes

Extensive empirical evidence from psychology, education science, economics and social sciences shows that social and emotional skills help individuals navigate life and achieve success. The positive impacts of these skills have been observed at different stages of the lifespan and across various life domains and contexts. In some instances, these impacts can compete with those of long-established measures of cognitive skills.

The following sections provide a glimpse at this literature to highlight the importance of social and emotional skills as drivers of key life outcomes. A particular focus therein lies on research using the Big Five model of personality. It is important to note that the relationships between social and emotional skills and many of the outcomes mentioned below have been often shown to be non-linear (see, for example, Rammstedt,

Lechner and Danner (2024^[30]). In many cases, having more of a certain skill is beneficial only up to a point, after which additional increases may bring diminishing returns or even negative effects.

Educational success

Social and emotional skills have been shown to influence various academic outcomes. In particular, conscientiousness – the tendency for organised, persistent and responsible behaviour – is a predictor of grades and performance in standardised tests across different education levels (Poropat, 2009^[31]; Almlund et al., 2011^[32]; Mammadov, 2021^[33]). Openness to experience has also been shown to impact academic performance (Almlund et al., 2011^[32]). Results of the OECD's SSES point into a similar direction by showing that achievement motivation, persistence, responsibility and self-control, traits closely related to conscientiousness, as well as curiosity, are associated with higher grades and lower levels of absenteeism and tardiness (OECD, 2024^[34]). Importantly, the effects of social and emotional skills are independent of those of cognitive abilities, such as IQ, reasoning ability or processing speed (Borghans et al., 2016^[35]; Nofle and Robins, 2007^[36]; Rammstedt, Lechner and Danner, 2024^[30]).

In addition, social and emotional skills are linked to higher educational attainment (Cobb-Clark et al., 2019^[37]; Cunha, Heckman and Schennach, 2010^[38]). This is particularly the case for openness to experience, conscientiousness and emotional stability. Furthermore, there is some evidence to suggest that emotional intelligence is associated with lower risk of university dropout (Qualter et al., 2009^[39]). Social and emotional skills have been also linked to informal learning at work (Cerasoli et al., 2017^[40]) and participation in adult education and learning (Laible, Anger and Baumann, 2020^[41]; Sörman et al., 2024^[42]).

Economic success

Various social and emotional skills are found to impact individuals' labour market chances and earnings. Conscientiousness and emotional stability have been linked to higher chances of being full-time employed (Rammstedt, Lechner and Danner, 2024^[30]). These skills, together with openness to experience, relate to higher incomes (Cabus, Napierala and Carretero, 2021^[43]). Extraversion – being outgoing and sociable – is related to higher chances for being employed and higher chances for becoming an entrepreneur (Brandstätter, 2011^[44]; Izadi and Tuhkuri, 2024^[28]; Schoon and Duckworth, 2012^[45]). Extensive literature from labour economics links locus of control – the degree to which individuals believe they have control over their lives – to a number of labour market outcomes, including higher earning, faster earnings growth, better employment opportunities and shorter unemployment spells following a job loss (Cobb-Clark, 2015^[46]). Other traits, such as self-confidence, social co-operation, self-efficacy and sense of mastery, have been also shown to play a role for labour market success (OECD, 2015^[9]; Steponavičius, Gress-Wright and Linzarini, 2023^[26]). Again, the impacts of social and emotional skills on employment outcomes still hold after controlling for cognitive skills (Rammstedt, Lechner and Danner, 2024^[30]). However, it should be noted that the effects of the Big Five domains on earnings are rather small, when controlled for education and cognitive skills (Alderotti, Rapallini and Traverso, 2023^[47]; Rammstedt, Lechner and Danner, 2024^[30]).

Health

There is ample evidence that strong social and emotional skills are linked to better health. Agreeableness, conscientiousness and emotional stability are linked to various healthier behaviours, such as lower risks of smoking and alcohol misuse (Strickhouser, Zell and Krizan, 2017^[48]). They are positively related to self-reported general health, even after accounting for various personal characteristics, including cognitive skills (Rammstedt, Lechner and Danner, 2024^[30]). By contrast, extraversion is less related to mental and general health and more predictive of physical activity (Strickhouser, Zell and Krizan, 2017^[48]). OECD's SSES confirms that social and emotional skills, especially optimism, achievement motivation, persistence

and responsibility, are linked with positive health behaviours among students (OECD, 2024^[34]). Other studies show that social and emotional skills are linked to lower risks of obesity among young people (OECD, 2015^[9]).

Subjective well-being

Social and emotional skills also influence how people feel and how they perceive their lives. Various studies show that social and emotional skills, particularly agreeableness, conscientiousness, emotional stability and self-control, are linked to higher life satisfaction (Rammstedt, Lechner and Danner, 2024^[30]; Strickhouser, Zell and Krizan, 2017^[48]). These traits are also associated with higher job satisfaction (Cobb-Clark et al., 2022^[49]; Judge, Heller and Mount, 2002^[50]). Moreover, extraversion, agreeableness, conscientiousness and emotional stability are negatively related to loneliness (Buecker et al., 2020^[51]). Findings from OECD's SSES indicate that optimism, energy, stress resistance and emotional control are associated with higher life satisfaction among 10- and 15-years-old students. These traits also support a positive body image, while optimism, achievement motivation, persistence and responsibility are positively linked to students' satisfaction with their relationships (OECD, 2024^[34]).

Societal outcomes

Social and emotional skills impact individual outcomes that, in their aggregate, are important for the proper functioning of society. Such outcomes broadly include anti- or prosocial behaviours, crime, and engagement in political and civic life. Extensive evidence suggests that low agreeableness, conscientiousness and emotional stability are linked to behaviours such as alcohol and drugs abuse, gambling, bullying, aggression and offending (Dash et al., 2019^[52]; Jolliffe and Farrington, 2022^[53]; Jones, Miller and Lynam, 2011^[54]; Mitsopoulou and Giovazolias, 2015^[55]). On the other hand, agreeableness is positively related to helping and empathy (Graziano and Habashi, 2010^[56]; Habashi, Graziano and Hoover, 2016^[57]; Mooradian, Davis and Matzler, 2011^[58]). With regard to civic engagement, extraversion and emotional stability were found to increase the likelihood of voting, donating to a candidate, volunteering for a candidate or party, or attending a political rally (Furnham and Cheng, 2019^[59]; Gerber et al., 2011^[60]). Extraversion and agreeableness were shown to predict volunteering (Ackermann, 2019^[61]; Capra, Jiang and Su, 2021^[62]; Omoto, Packard and Ballew, 2020^[63]).

The malleability of social and emotional skills

Social and emotional skills are influenced by both genetic and environmental factors. A meta-analysis based on results from twin studies as well as family and adoption studies suggests that approximately 60% of the individual differences in the Big Five domains are due to environmental influences, while around 40% are explained by genetic inheritance (Vukasović and Bratko, 2015^[64]). Thus, these skills are not fixed traits; rather they can be shaped by the family environment, social context or major life events. Moreover, they can be deliberately changed through targeted interventions, such as training, education, parenting practices and participation in specific activities. This susceptibility to deliberate change makes investments in these skills both feasible and valuable.

Research indicates that childhood and adolescence are particularly sensitive periods for the development of social and emotional skills. During these stages, the brain exhibits a high degree of plasticity, making it especially responsive to external influences from education, parenting and social environments (Cantor et al., 2018^[65]; Steponavičius, Gress-Wright and Linzarini, 2023^[23]). As a result, programmes aiming to cultivate or strengthen social and emotional capabilities typically intervene at early life stages.

Programmes are often offered in schools and are designed to integrate the development of social and emotional skills into the everyday educational experience. They include structured curricula that explicitly

teach skills such as emotional regulation, empathy and collaboration, often under comprehensive frameworks like CASEL. In addition, many schools implement whole-school approaches that align teaching practices, disciplinary strategies and school climate with the goal of fostering a supportive and inclusive environment for social and emotional development. Teacher training and staff development are also critical components, equipping educators with the tools to teach and reinforce these skills effectively (see Box 1.2 for an example of a programme).

Studies on the effectiveness of school-based interventions aimed at promoting social and emotional skills indicate meaningful changes in these skills, even after relatively short training periods. A comprehensive meta-analysis by Cipriano et al. (2023^[66]), which draws on 424 studies from 53 countries, covering over 575 000 students, shows that such interventions significantly enhance students' social and emotional skills, attitudes and prosocial behaviours. However, outcomes vary greatly depending on programme content, implementation quality and contextual factors, such as school climate. Overall, programme design features strongly influence programme effectiveness (Cipriano et al., 2023^[66]). Programmes that follow the so-called SAFE principles – those that are Sequenced (building skills gradually), Active (engaging students in practice), Focused (targeting specific skills), and Explicit (clearly defining learning objectives) – are shown to produce significantly stronger impacts.

Programmes promoting social and emotional learning among children and adolescents have been shown to improve competences that can be closely mapped onto the Big Five personality characteristics. A recent literature review by Steponavičius, Gress-Wright and Linzarini (2023^[26]) classified a number of social and emotional skills in terms of teachability, drawing on evidence from 74 school-based interventions. The study concluded that there is moderate to very high evidence on the teachability of responsibility, persistence and self-control (skills conceptually close to the facets of conscientiousness), stress resistance, optimism and emotional control (linked to emotional stability), assertiveness (a facet of extraversion), as well as co-operation, trust and empathy (skills related to agreeableness). In contrast, the empirical evidence on the teachability of curiosity and creativity, facets of openness to experience, was unclear, while findings on the teachability of sociability were limited.

While early life is a critical period, social and emotional skills remain malleable well into adulthood. A meta-analysis by Roberts et al. (2017^[67]) synthesised more than 200 studies to explore how Big Five personality traits of adults change as a result of clinical and non-clinical interventions. The analysis finds that personality traits do change in response to interventions. Of the Big Five traits, emotional stability was the most amenable to change, followed by extraversion, conscientiousness and agreeableness, which showed statistically significant but more modest changes. Openness to experience showed the smallest changes. Importantly, changes in the Big Five traits were not only evident immediately after the intervention, but also endured over time, with follow-up data indicating sustained improvements 6 to 12 months later. This evidence challenges the traditional view of Big Five traits as stable traits across time by suggesting that interventions can lead to meaningful personality change.

In addition, research on social and emotional learning of students has paid increasing attention to the development of social and emotional skills of teachers. The reason is that adults need strong social and emotional competencies before engaging children in building the same skills. These studies have generally shown that teacher training and targeted interventions can change teachers' social and emotional skills (see Jennings et al. (2017^[68]) and Oliveira and colleagues (2021^[69])). For example, Oliveira and colleagues (2021^[69]) reviewed 43 empirical studies which evaluated the efficacy of school-based interventions involving 3 004 teachers and found that these interventions significantly impacted teachers' social and emotional competencies, emotional competence and psychological distress. Another meta-analysis by Oliveira et al. (2021^[70]) showed that interventions targeting teachers' social and emotional skills significantly reduced burnout symptoms.

Box 1.2. RULER: A whole-school intervention to support social and emotional learning

The RULER programme, developed by the Yale Center for Emotional Intelligence, stands as a systemic and evidence-based approach to embedding social and emotional learning across entire school communities – from pre-school through high school. RULER prioritises five foundational emotional intelligence skills:

- recognising emotions in oneself and others
- understanding the causes and consequences of emotions
- labelling emotions with nuanced vocabulary
- expressing emotions appropriately within cultural and social contexts
- regulating emotions using effective strategies.

These skills are nurtured through four core tools:

- The Charter: a collaboratively created agreement outlining shared community norms
- The Mood Meter: a visual tool to name and reflect on emotions (mapped across pleasantness and energy dimensions)
- The Meta-Moment: a reflective pause enabling thoughtful emotional response
- The Blueprint: a conflict-resolution framework encouraging empathy and constructive dialogue.

Implementation typically begins with training for school leaders, educators, staff and families. Schools often form a RULER Implementation Team (RIT), which becomes a local champion for the approach – embedding the tools into daily practice, curriculum and school culture. Ongoing coaching, online resources and community engagement support the sustainability of SEL across the institution.

Impacts of RULER are well documented through multiple rigorous evaluations, including randomised controlled trials (Cipriano et al., 2019^[71]; Hagelskamp et al., 2013^[72]). Schools that adopted RULER report improved academic achievement and classroom engagement, stronger social and leadership skills among students, reduced aggression and attention issues, healthier school climate, and lower levels of student anxiety and depression.

Recognised as a “SElect Program” by CASEL, RULER meets high standards for design, implementation support, and sustainability and has been adopted in over 3 500 schools globally, reaching more than one million students

Source: See <https://rulerapproach.org/> (accessed 21 August 2025).

What the Survey of Adult Skills measures

Overview of the Survey of Adult Skills

The Survey of Adult Skills focuses on the measurement of cognitive skills. It assesses the proficiency of adults aged 16-65 in literacy, numeracy and problem solving, skills deemed as “key information-processing skills”. In information-rich societies, these skills are needed for gaining access to information relevant for everyday life and for integrating into work and society. In addition, the survey includes a background questionnaire that collects rich information on respondents’ background and context, such as socio-demographics, education, employment, use of skills, well-being and civic engagement.

The Survey of Adult Skills is conducted every ten years. The first cycle of the survey took place between 2011 and 2017, with 39 countries and economies participating over three rounds of data collection. The second cycle of the survey has undergone one round of data collection so far, which took place 2022-23. The focus of this report is on the second survey cycle (referred to as 2023 Survey of Adult Skills) since it assessed social and emotional skills of respondents. Thirty-one countries and economies participated in this cycle. Among them, 29 included measures of social and emotional skills in the assessment: Austria, Canada, Chile, Croatia, Czechia, Denmark, England (United Kingdom), Estonia, Finland, the Flemish Region (Belgium), France, Germany, Hungary, Ireland, Israel, Italy, Korea, Latvia, Lithuania, the Netherlands, New Zealand, Norway, Poland, Portugal, Singapore, Sweden, the Slovak Republic, Spain and Switzerland.

The cognitive assessment in the 2023 Survey of Adult Skills was administered on tablets. The assessment tasks reflect real-life situations that adults typically encounter at work and in personal life (e.g. read a newspaper article or calculate a budget). Many items were explicitly designed to reflect the types of tasks found in digital environments (e.g. navigate a website to respond) to account for the increased reliance on digital tools in information processing. Both the proficiency of adults and the difficulty of tasks are assessed on a 500-point scale. To help interpret the results, the reporting scales for each domain are divided into several proficiency levels. Below Level 1 and Level 1 are the lowest and Levels 4 and 5 are the highest proficiency levels (OECD, 2024^[1]).

The 2023 Survey of Adult Skills defines literacy as “accessing, understanding, evaluating, and reflecting on written texts to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society” (Rouet et al., 2021^[73]). Low-performing adults in literacy, i.e. those who score at Level 1 or below, typically can process meaning at the sentence level. They are able to locate relevant information in a text when this information is explicitly cued in the question. In contrast, adults with the highest literacy proficiency, at Level 4 or 5, are able to understand long and dense texts presented on multiple pages and to infer information from complex or implicit statements.

Numeracy means “accessing, using, and reasoning critically with mathematical content, information and ideas represented in multiple ways to engage in and manage the mathematical demands of a range of situations in adult life” (Tout et al., 2021^[74]). Respondents at Level 1 or below in numeracy demonstrate elementary whole-number sense and can recognise common percentages or graphical representations. High proficiency in numeracy (at Levels 4-5) includes understanding and integrating multiple types of mathematical information, such as statistics and chance, spatial relationships and change. This information can be presented in complex and abstract ways or embedded in longer texts.

Adaptive problem solving (APS) involves “the capacity to achieve one’s goals in a dynamic situation in which a method for solution is not immediately available. It requires engaging in cognitive and metacognitive processes to define the problem, search for information, and apply a solution in a variety of information environments and contexts” (Greiff et al., 2021^[75]). Proficiency in this domain is represented in five proficiency levels. Adults performing at Level 1 and below, the lowest proficiency levels, are able to understand simple, static problems situated within a clearly structured environment and implement solutions involving a limited number of steps. Adults performing at Level 4, the highest level of proficiency, are able to understand dynamic problems situated in complex and information-rich environments and apply multi-step solutions to address them.

Measuring social and emotional skills in the Survey of Adult Skills

The background questionnaire of the 2023 Survey of Adult Skills contained self-reported measures of social and emotional skills. These are short versions of the Big Five Inventory-2 (BFI-2): the so-called BFI-2-S and BFI-2-XS. While the BFI-2 uses 60 items to assess the Big Five personality domains and 15 underlying facets, the BFI-2-S uses 30 items instead – six items per domain and two items per facet. BFI-2-XS is a subset of BFI-2-S. It uses 15 items – three per domain and one per facet. These shorter versions

were chosen because they provide a parsimonious and efficient way to measure the Big Five personality traits while retaining the full measure's reliability and validity at the domain level (Soto and John, 2017^[2]). However, only the BFI-2-S provides reliable and valid measures at the facet level (Soto and John, 2017^[2]). Box 1.3 lists the items used in both versions.

Thirteen of the 29 countries and economies that administered the Big Five instrument in the 2023 Survey of Adult Skills used the longer BFI-2-S version. The remaining 16 countries and economies administered the BFI-2-XS version. Since the BFI-2-XS-version is a subset of the BFI-2-S and thus contained in all countries, it is the basis for comparisons across all 29 countries and economies. Analyses at the facet level are limited only to the 13 countries using BFI-2-S. The countries using each version are the following:

- BFI-2-S: Canada, Chile, Croatia, Czechia, Estonia, Germany, Italy, Korea, New Zealand, Norway, Portugal, the Slovak Republic, Spain
- BFI-2-XS: Austria, Denmark, England (United Kingdom), Finland, the Flemish Region (Belgium), France, Hungary, Ireland, Israel, Latvia, Lithuania, the Netherlands, Poland, Singapore, Sweden, Switzerland.

Importantly, the 2023 Survey of Adult Skills uses within-country z-standardised scale scores of the Big Five domains and sub-domains (OECD, 2025^[76]). These scores were created by calculating the mean response per respondent for a particular domain or facet; estimating the weighted point estimates of the mean and standard deviation of the scale scores within countries; assigning respondents z-scores based on the within-country weighted means and standard deviations for each domain and sub-domain. Individual scores thus indicate the distance from the country mean, expressed in units of the country's standard deviation, where positive scores reflect above-average skills, and negative scores reflect below-average skills within a specific country.

As a consequence of this transformation, each country's mean score equals zero and its standard deviation equals one. This makes comparisons of the mean and variance of social and emotional skills across countries meaningless. However, comparisons of mean differences and variances between socio-demographic groups within countries are possible. It is also possible to compare correlations of the Big Five measures with other variables across countries. For example, one can explore how gender gaps in social and emotional skills differ across countries, or how the relationship between these skills and wages varies internationally.

This approach was chosen to prevent comparisons of mean skill levels across countries. While psychometric analyses found the measures used in the survey to be comparable across groups within countries, they were not deemed comparable enough across countries (OECD, 2025^[76]).

What this study can tell us

The Survey of Adult Skills provides policymakers with insights into the level of key information-processing skills essential for effective participation in the labour market and society across a broad range of countries. The 2023 cycle expands the survey's scope by including measures of social and emotional skills. Concretely, it enables policymakers, researchers and educators to address three key policy questions:

1. Do social and emotional skills reinforce the acquisition of key information-processing skills? (Chapter 2)

Empirical evidence suggests that social and emotional skills contribute to the acquisition of education and cognitive skills. Simultaneously, cognitive abilities and the formal learning environment can impact the development of social and emotional skills, particularly in childhood and adolescence. The 2023 Survey of Adult Skills sheds light on the interplay between social and emotional skills, key information-processing skills and formal and non-formal education.

Box 1.3. Measurements of the Big Five in the 2023 Survey of Adults Skills

The background questionnaire of the 2023 Survey of Adult Skills contained Big Five personality measures. The items were administered by interviewers who presented respondents with a showcard including five response options, ranging from Strongly disagree to Strongly agree. Respondents gave verbal responses to each of the items. These responses were later numerically coded from 1 (Strongly disagree) to 5 (Strongly agree).

Different instruments were used in different countries. Sixteen countries and economies used the BFI-2-XS measure, and twelve countries used the BFI-2-S measure. The shorter BFI-2-XS is a subset of the BFI-2-S, meaning that all 15 items of the BFI-2-XS are also present in the 30 items of the BFI-2-S. All 30 items are listed in Table 1.1.

Table 1.1. Items wordings of the Big Five personality measures used in the 2023 Survey of Adults Skills

Personality domain	Facet	Items (<i>Italics indicate BFI-2-XS items</i>)
Extraversion	Assertiveness	<i>I am dominant, act as a leader.</i> I prefer to have others take charge. (r)
	Energy level	<i>I am full of energy.</i> I am less active than other people. (r)
	Sociability	<i>I tend to be quiet.</i> (r) I am outgoing, sociable.
Agreeableness	Compassion	<i>I am compassionate, have a soft heart.</i> I can be cold and uncaring. (r)
	Respectfulness	<i>I am sometimes rude to others.</i> (r) I am respectful, treat others with respect.
	Trust	<i>I assume the best about people.</i> I tend to find fault with others. (r)
Conscientiousness	Organisation	<i>I tend to be disorganised.</i> (r) I keep things neat and tidy.
	Productiveness	<i>I have difficulty getting started on tasks.</i> (r) I am persistent, work until the task is finished.
	Responsibility	<i>I am reliable, can always be counted on.</i> I can be somewhat careless. (r)
Emotional Stability	Anxiety	<i>I worry a lot.</i> (r) I am relaxed, handle stress well.
	Depression	<i>I tend to feel depressed, blue.</i> (r) I feel secure, comfortable with myself.
	Emotional volatility	<i>I am emotionally stable, not easily upset.</i> I am temperamental, get emotional easily. (r)
Openness to Experience	Aesthetic sensitivity	<i>I am fascinated by art, music or literature.</i> I have few artistic interests. (r)
	Intellectual curiosity	<i>I have little interest in abstract ideas.</i> (r) I am complex, a deep thinker.
	Creative imagination	<i>I am original, come up with new ideas.</i> I have little creativity. (r)

Note: (r) denotes reverse-coded items, where a positive response to the item corresponds to a low value on the overall personality domain.

The survey sheds light on how social and emotional skills are linked to educational attainment, across different birth cohorts and across countries and economies. It provides evidence on the extent to which these skills relate to the participation in non-formal learning and how they are linked to the use of information-processing skills at work and in everyday life. This evidence is important for informing policies aimed at promoting skill acquisition and preventing skill decline – particularly among older workers – as it provides insights into the factors that affect these processes.

2. How do cognitive and social and emotional skills relate to economic and social outcomes? (Chapters 3)

The 2023 Survey of Adult Skills provides evidence on how cognitive and social and emotional skills co-shape life. It shows how these skills relate to employment outcomes independently from each other, and how their relative importance varies by the specific outcome under consideration, by socio-demographic subgroup and by country. It also shows how these skills interact in affecting key life outcomes: for example, to what extent does the impact of social and emotional skills on important outcomes vary with the level of proficiency in information-processing skills? Can specific social and emotional skills compensate for low skills proficiency? Does this differ across countries?

In addition, the survey enables analyses on the impacts of cognitive and social and emotional skills on non-economic outcomes, including well-being, health or social and political engagement. It shows the extent to which these relationships are mediated by socio-demographic characteristics, education and economic outcomes, and how they differ between subpopulations and across countries.

3. How are social and emotional skills distributed in the population? (Chapter 4)

Understanding how social and emotional skills are distributed across the adult population is essential for designing equitable policies. These skills have been shown to influence a wide range of outcomes – including employment, health, education and civic engagement – and their unequal distribution can contribute to persistent social and economic inequalities. The 2023 Survey of Adult Skills shows how these skills vary by age, gender, parental education, immigrant background and education. This helps identify groups that can benefit from targeted interventions that strengthen social and emotional skills. At the same time, acknowledging that socio-demographic groups may differ in their social and emotional skills can guide the design of education and workplace settings that respect and accommodate this diversity.

References

- Ackermann, K. (2019), “Predisposed to Volunteer? Personality Traits and Different Forms of Volunteering”, *Nonprofit and Voluntary Sector Quarterly*, Vol. 48/6, pp. 1119-1142, <https://doi.org/10.1177/0899764019848484>. [61]
- Alderotti, G., C. Rapallini and S. Traverso (2023), “The Big Five personality traits and earnings: A meta-analysis”, *Journal of Economic Psychology*, Vol. 94, p. 102570, <https://doi.org/10.1016/j.joep.2022.102570>. [47]
- Almlund, M. et al. (2011), “Personality Psychology and Economics”, in *Handbook of the Economics of Education, Handbook of The Economics of Education*, Elsevier, <https://doi.org/10.1016/b978-0-444-53444-6.00001-8>. [32]

- Borghans, L. et al. (2016), "What grades and achievement tests measure", *Proceedings of the National Academy of Sciences*, Vol. 113/47, pp. 13354-13359, <https://doi.org/10.1073/pnas.1601135113>. [35]
- Brandstätter, H. (2011), "Personality aspects of entrepreneurship: A look at five meta-analyses", *Personality and Individual Differences*, Vol. 51/3, pp. 222-230, <https://doi.org/10.1016/j.paid.2010.07.007>. [44]
- Buecker, S. et al. (2020), "Loneliness and the Big Five Personality Traits: A Meta-Analysis", *European Journal of Personality*, Vol. 34/1, pp. 8-28, <https://doi.org/10.1002/per.2229>. [51]
- Cabus, S., J. Napierala and S. Carretero (2021), "The returns to non-cognitive skills: A meta-analysis", *JRC Working Papers Series on Labour, Education and Technology* No. 2021/06, <https://ideas.repec.org/p/ipt/laedte/202106.html> (accessed on 14 February 2025). [43]
- Cantor, P. et al. (2018), "Malleability, plasticity, and individuality: How children learn and develop in context", *Applied Developmental Science*, Vol. 23/4, pp. 307-337, <https://doi.org/10.1080/10888691.2017.1398649>. [65]
- Capra, C., B. Jiang and Y. Su (2021), "Altruistic self-concept mediates the effects of personality traits on volunteering: Evidence from an online experiment", *Journal of Behavioral and Experimental Economics*, Vol. 92, p. 101697, <https://doi.org/10.1016/j.socec.2021.101697>. [62]
- Cerasoli, C. et al. (2017), "Antecedents and Outcomes of Informal Learning Behaviors: a Meta-Analysis", *Journal of Business and Psychology*, Vol. 33/2, pp. 203-230, <https://doi.org/10.1007/s10869-017-9492-y>. [40]
- Chernyshenko, O., M. Kankaraš and F. Drasgow (2018), "Social and emotional skills for student success and well-being: Conceptual framework for the OECD study on social and emotional skills", *OECD Education Working Papers*, No. 173, OECD Publishing, Paris, <https://doi.org/10.1787/db1d8e59-en>. [19]
- Cipriano, C. et al. (2019), "Exploring Changes in Student Engagement through the RULER Approach: An Examination of Students at Risk of Academic Failure", *Journal of Education for Students Placed at Risk (JESPAR)*, Vol. 24/1, pp. 1-19, <https://doi.org/10.1080/10824669.2018.1524767>. [71]
- Cipriano, C. et al. (2023), "The state of evidence for social and emotional learning: A contemporary meta-analysis of universal school-based SEL interventions", *Child Development*, Vol. 94/5, pp. 1181-1204, <https://doi.org/10.1111/cdev.13968>. [66]
- Cobb-Clark, D. (2015), "Locus of control and the labor market", *IZA Journal of Labor Economics*, Vol. 4/1, <https://doi.org/10.1186/s40172-014-0017-x>. [46]
- Cobb-Clark, D. et al. (2022), "The Predictive Power of Self-Control for Life Outcomes", *Journal of Economic Behavior & Organization*, Vol. 197, pp. 725-744, <https://doi.org/10.1016/j.jebo.2022.02.028>. [49]
- Cobb-Clark, D. et al. (2019), "Self-Control: Determinants, Life Outcomes and Intergenerational Implications", *IZA Discussion Papers*, Vol. 12488, <https://www.iza.org/publications/dp/12488/> (accessed on 13 February 2024). [37]

- Cockburn, I., R. Henderson and S. Stern (2018), *The Impact of Artificial Intelligence on Innovation*, National Bureau of Economic Research, Cambridge, MA, <https://doi.org/10.3386/w24449>. [6]
- Costa Jr., P. and R. McCrae (1995), "Domains and Facets: Hierarchical Personality Assessment Using the Revised NEO Personality Inventory", *Journal of Personality Assessment*, Vol. 64/1, pp. 21-50, https://doi.org/10.1207/s15327752jpa6401_2. [16]
- Costa, P. and R. McCrae (1992), *NEO PI-R professional manual*, Psychological Assessment Resources, Inc. [15]
- Cunha, F., J. Heckman and S. Schennach (2010), "Estimating the Technology of Cognitive and Noncognitive Skill Formation", *Econometrica*, Vol. 78/3, pp. 883-931, <https://doi.org/10.3982/ecta6551>. [38]
- Dash, G. et al. (2019), "Big Five personality traits and alcohol, nicotine, cannabis, and gambling disorder comorbidity.", *Psychology of Addictive Behaviors*, Vol. 33/4, pp. 420-429, <https://doi.org/10.1037/adb0000468>. [52]
- Filippucci, F. et al. (2024), "The impact of Artificial Intelligence on productivity, distribution and growth: Key mechanisms, initial evidence and policy challenges", *OECD Artificial Intelligence Papers*, No. 15, OECD Publishing, Paris, <https://doi.org/10.1787/8d900037-en>. [3]
- Furnham, A. and H. Cheng (2019), "Personality Traits and Socio-Demographic Variables as Predictors of Political Interest and Voting Behavior in a British Cohort", *Journal of Individual Differences*, Vol. 40/2, pp. 118-125, <https://doi.org/10.1027/1614-0001/a000283>. [59]
- Gerber, A. et al. (2011), "Personality Traits and Participation in Political Processes", *The Journal of Politics*, Vol. 73/3, pp. 692-706, <https://doi.org/10.1017/s0022381611000399>. [60]
- Graziano, W. and M. Habashi (2010), "Motivational Processes Underlying Both Prejudice and Helping", *Personality and Social Psychology Review*, Vol. 14/3, pp. 313-331, <https://doi.org/10.1177/1088868310361239>. [56]
- Greiff, S. et al. (2021), "PIAAC Cycle 2 assessment framework: Adaptive problem solving", in *The Assessment Frameworks for Cycle 2 of the Programme for the International Assessment of Adult Competencies*, OECD Publishing, Paris, <https://doi.org/10.1787/3a14db8b-en>. [75]
- Habashi, M., W. Graziano and A. Hoover (2016), "Searching for the Prosocial Personality", *Personality and Social Psychology Bulletin*, Vol. 42/9, pp. 1177-1192, <https://doi.org/10.1177/0146167216652859>. [57]
- Hagelskamp, C. et al. (2013), "Improving Classroom Quality with The RULER Approach to Social and Emotional Learning: Proximal and Distal Outcomes", *American Journal of Community Psychology*, Vol. 51/3-4, pp. 530-543, <https://doi.org/10.1007/s10464-013-9570-x>. [72]
- Hofstee, W., B. de Raad and L. Goldberg (1992), "Integration of the Big Five and circumplex approaches to trait structure.", *Journal of Personality and Social Psychology*, Vol. 63/1, pp. 146-163, <https://doi.org/10.1037/0022-3514.63.1.146>. [17]
- Izadi, R. and J. Tuhkuri (2024), "Evolving returns to personality", *Rockwool Foundation Berlin (RF Berlin) and Centre for Research & Analysis of Migration (CReAM), Discussion Paper Series No. 16/24*, <https://www.econstor.eu/handle/10419/304414> (accessed on 14 February 2025). [28]

- Jennings, P. et al. (2017), "Impacts of the CARE for Teachers program on teachers' social and emotional competence and classroom interactions.", *Journal of Educational Psychology*, Vol. 109/7, pp. 1010-1028, <https://doi.org/10.1037/edu000187>. [68]
- John, O., R. Robins and L. Pervin (eds.) (2008), *Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues*, The Guilford Press. [10]
- Jolliffe, D. and D. Farrington (2022), "The promotive relationship between personality and self-reported offending", *Psychology, Crime & Law*, Vol. 30/4, pp. 319-337, <https://doi.org/10.1080/1068316x.2022.2092620>. [53]
- Jones, S. et al. (2016), *What is the Same and What is Different? Making Sense of the "Non-Cognitive" Domain: Helping Educators Translate Research into Practice*, Harvard Graduate School of Education, https://easel.gse.harvard.edu/sites/projects.iq.harvard.edu/files/gse-easel-lab/files/words_matter_paper.pdf (accessed on 3 March 2025). [8]
- Jones, S., J. Miller and D. Lynam (2011), "Personality, antisocial behavior, and aggression: A meta-analytic review", *Journal of Criminal Justice*, Vol. 39/4, pp. 329-337, <https://doi.org/10.1016/j.jcrimjus.2011.03.004>. [54]
- Judge, T. et al. (2002), "Personality and leadership: A qualitative and quantitative review.", *Journal of Applied Psychology*, Vol. 87/4, pp. 765-780, <https://doi.org/10.1037/0021-9010.87.4.765>. [27]
- Judge, T., D. Heller and M. Mount (2002), "Five-factor model of personality and job satisfaction: A meta-analysis.", *Journal of Applied Psychology*, Vol. 87/3, pp. 530-541, <https://doi.org/10.1037/0021-9010.87.3.530>. [50]
- Laible, M., S. Anger and M. Baumann (2020), "Personality Traits and Further Training", *Frontiers in Psychology*, Vol. 11, <https://doi.org/10.3389/fpsyg.2020.510537>. [41]
- Lane, M. and A. Saint-Martin (2021), "The impact of Artificial Intelligence on the labour market: What do we know so far?", *OECD Social, Employment and Migration Working Papers*, No. 256, OECD Publishing, Paris, <https://doi.org/10.1787/7c895724-en>. [4]
- Mammadov, S. (2021), "Big Five personality traits and academic performance: A meta-analysis", *Journal of Personality*, Vol. 90/2, pp. 222-255, <https://doi.org/10.1111/jopy.12663>. [33]
- Martin, J. et al. (2019), *A Rosetta Stone for Social and Emotional Skills: Using the Big Five Personality Factors to Understand, Assess, and Enhance Social and Emotional Skills in Primary and Secondary Education Worldwide*, https://asiasociety.org/sites/default/files/2020-03/A_Rosetta_Stone_for_SEL_AS-ACT.pdf (accessed on 30 April 2025). [22]
- McCrae, R. and P. Costa (2003), *Personality in Adulthood*, Taylor & Francis, Abingdon, UK, <https://doi.org/10.4324/9780203428412>. [11]
- McCrae, R. and P. Costa (1997), "Personality trait structure as a human universal.", *American Psychologist*, Vol. 52/5, pp. 509-516, <https://doi.org/10.1037//0003-066x.52.5.509>. [12]
- Mitsopoulou, E. and T. Giovazolias (2015), "Personality traits, empathy and bullying behavior: A meta-analytic approach", *Aggression and Violent Behavior*, Vol. 21, pp. 61-72, <https://doi.org/10.1016/j.avb.2015.01.007>. [55]

- Mooradian, T., M. Davis and K. Matzler (2011), “Dispositional Empathy and the Hierarchical Structure of Personality”, *The American Journal of Psychology*, Vol. 124/1, pp. 99-109, <https://doi.org/10.5406/amerjpsyc.124.1.0099>. [58]
- Noftle, E. and R. Robins (2007), “Personality predictors of academic outcomes: Big five correlates of GPA and SAT scores.”, *Journal of Personality and Social Psychology*, Vol. 93/1, pp. 116-130, <https://doi.org/10.1037/0022-3514.93.1.116>. [36]
- O’Connell, M. (2023), “Assessing Patterns of Anti-Social and Risky Behaviour in the Millennium Cohort Study—What Are the Roles of SES (Socio-Economic Status), Cognitive Ability and Personality?”, *Behavioral Sciences*, Vol. 13/1, p. 46, <https://doi.org/10.3390/bs13010046>. [29]
- OECD (2025), *Survey of Adult Skills 2023 Technical Report*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/80d9f692-en>. [76]
- OECD (2024), *OECD Data Explorer: Population projections*, <https://data-explorer.oecd.org/> (accessed on 30 August 2024). [7]
- OECD (2024), *Social and Emotional Skills for Better Lives: Findings from the OECD Survey on Social and Emotional Skills 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/35ca7b7c-en>. [34]
- OECD (2024), *Survey of Adult Skills – Reader’s Companion: 2023*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/3639d1e2-en>. [1]
- OECD (2022), *Mending the Education Divide: Getting Strong Teachers to the Schools That Need Them Most*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/92b75874-en>. [24]
- OECD (2015), *Skills for Social Progress: The Power of Social and Emotional Skills*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264226159-en>. [9]
- Oliveira, S. et al. (2021), “Impacts of Social and Emotional Learning Interventions for Teachers on Teachers’ Outcomes: A Systematic Review With Meta-Analysis”, *Frontiers in Psychology*, Vol. 12, <https://doi.org/10.3389/fpsyg.2021.677217>. [69]
- Oliveira, S. et al. (2021), “A Meta-analysis of the Impact of Social and Emotional Learning Interventions on Teachers’ Burnout Symptoms”, *Educational Psychology Review*, Vol. 33/4, pp. 1779-1808, <https://doi.org/10.1007/s10648-021-09612-x>. [70]
- Omoto, A., C. Packard and M. Ballew (2020), *Personality and Volunteerism*, Wiley, <https://doi.org/10.1002/9781119547181.ch339>. [63]
- Poropat, A. (2009), “A meta-analysis of the five-factor model of personality and academic performance.”, *Psychological Bulletin*, Vol. 135/2, pp. 322-338, <https://doi.org/10.1037/a0014996>. [31]
- Primi, R. et al. (2016), “Development of an Inventory Assessing Social and Emotional Skills in Brazilian Youth”, *European Journal of Psychological Assessment*, Vol. 32/1, pp. 5-16, <https://doi.org/10.1027/1015-5759/a000343>. [20]
- Qualter, P. et al. (2009), “The role of Emotional Intelligence in the decision to persist with academic studies in HE”, *Research in Post-Compulsory Education*, Vol. 14/3, pp. 219-231, <https://doi.org/10.1080/13596740903139255>. [39]

- Rammstedt, B., C. Lechner and D. Danner (2024), “Beyond literacy: The incremental value of non-cognitive skills”, *OECD Education Working Papers*, No. 311, OECD Publishing, Paris, <https://doi.org/10.1787/7d4fe121-en>. [30]
- Roberts, B. et al. (2007), “The Power of Personality: The Comparative Validity of Personality Traits, Socioeconomic Status, and Cognitive Ability for Predicting Important Life Outcomes”, *Perspectives on Psychological Science*, Vol. 2/4, pp. 313-345, <https://doi.org/10.1111/j.1745-6916.2007.00047.x>. [13]
- Roberts, B. et al. (2017), “A systematic review of personality trait change through intervention.”, *Psychological Bulletin*, Vol. 143/2, pp. 117-141, <https://doi.org/10.1037/bul0000088>. [67]
- Rouet, J. et al. (2021), “PIAAC Cycle 2 assessment framework: Literacy”, in *The Assessment Frameworks for Cycle 2 of the Programme for the International Assessment of Adult Competencies*, OECD Publishing, Paris, <https://doi.org/10.1787/7b3bf33b-en>. [73]
- Saucier, G. and F. Ostendorf (1999), “Hierarchical subcomponents of the Big Five personality factors: A cross-language replication.”, *Journal of Personality and Social Psychology*, Vol. 76/4, pp. 613-627, <https://doi.org/10.1037/0022-3514.76.4.613>. [18]
- Schoon, I. and K. Duckworth (2012), “Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship.”, *Developmental Psychology*, Vol. 48/6, pp. 1719-1726, <https://doi.org/10.1037/a0029168>. [45]
- Sörman, D. et al. (2024), “The influence of personality traits on engagement in lifelong learning”, *International Journal of Lifelong Education*, Vol. 43/2-3, pp. 259-276, <https://doi.org/10.1080/02601370.2024.2343013>. [42]
- Soto, C. and O. John (2017), “Short and extra-short forms of the Big Five Inventory–2: The BFI-2-S and BFI-2-XS”, *Journal of Research in Personality*, Vol. 68, pp. 69-81, <https://doi.org/10.1016/j.jrp.2017.02.004>. [2]
- Soto, C. and O. John (2017), “The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power.”, *Journal of Personality and Social Psychology*, Vol. 113/1, pp. 117-143, <https://doi.org/10.1037/pspp0000096>. [14]
- Soto, C. et al. (2022), “Going Beyond Traits: Social, Emotional, and Behavioral Skills Matter for Adolescents’ Success”, *Social Psychological and Personality Science*, Vol. 15/1, pp. 33-45, <https://doi.org/10.1177/19485506221127483>. [25]
- Steponavičius, M., C. Gress-Wright and A. Linzarini (2023), “Social and emotional skills: Latest evidence on teachability and impact on life outcomes”, *OECD Education Working Papers*, No. 304, OECD Publishing, Paris, <https://doi.org/10.1787/ba34f086-en>. [26]
- Steponavičius, M., C. Gress-Wright and A. Linzarini (2023), “Social and emotional skills: Latest evidence on teachability and impact on life outcomes”, *OECD Education Working Papers*, No. 304, OECD Publishing, Paris, <https://doi.org/10.1787/ba34f086-en>. [23]
- Strickhouser, J., E. Zell and Z. Krizan (2017), “Does personality predict health and well-being? A metasynthesis.”, *Health Psychology*, Vol. 36/8, pp. 797-810, <https://doi.org/10.1037/hea0000475>. [48]

- Tout, D. et al. (2021), “PIAAC Cycle 2 assessment framework: Numeracy”, in *The Assessment Frameworks for Cycle 2 of the Programme for the International Assessment of Adult Competencies*, OECD Publishing, Paris, <https://doi.org/10.1787/c4221062-en>. [74]
- Vukasović, T. and D. Bratko (2015), “Heritability of personality: A meta-analysis of behavior genetic studies.”, *Psychological Bulletin*, Vol. 141/4, pp. 769-785, <https://doi.org/10.1037/bul0000017>. [64]
- Walton, K. et al. (2021), “Multimethod Support for Using the Big Five Framework to Organize Social and Emotional Skills”, *Assessment*, Vol. 30/1, pp. 144-159, <https://doi.org/10.1177/10731911211045744>. [21]
- Wang, H. et al. (2023), “Scientific discovery in the age of artificial intelligence”, *Nature*, Vol. 620/7972, pp. 47-60, <https://doi.org/10.1038/s41586-023-06221-2>. [5]

Notes

¹ The Big Five personality traits represent typical behaviours and beliefs that individuals tend to apply across different situations and contexts. More recent work of the OECD concentrate on social and emotional skills manifested in maximum behaviours – capacities that can be exercised as needed. The two concepts are related as people who tend to behave in certain ways tend to be more capable to exercise these behaviours when needed and vice versa. However, maximum behaviours may offer additional information compared to typical behaviours, such as a person’s adaptability to different circumstances and performance on specific tasks in high-stake situations (Soto et al., 2022^[25]). See Box 1.1 and Steponavičius, Gress-Wright and Linzarini (2023^[23]) for more information.

² See <https://www.weforum.org/stories/2016/03/21st-century-skills-future-jobs-students/> (accessed 28 February 2025).

³ See <https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/> (accessed 28 February 2025).

2 How do social and emotional skills matter for education and cognitive skills?

This chapter investigates the relationships between social and emotional skills, foundational cognitive skills and education. It explores how social and emotional skills impact both the level (i.e. educational attainment) and the type of education (i.e. the field of studies), as well as participation in adult learning activities. It also examines how these skills relate to proficiency in literacy, numeracy and adaptive problem solving, as well as the use of cognitive skills at work and in everyday life. The findings provide valuable insights for policymakers and educators focused on developing and maintaining a skilled adult population, promoting educational attainment and encouraging enrolment in targeted fields of study.

In Brief

Adults' social and emotional skills relate to their educational attainment and cognitive proficiency. Results from the 2023 Survey of Adult Skills show that among the five domains assessed – agreeableness, conscientiousness, emotional stability, extraversion and openness to experience – **openness** and **emotional stability** are consistently, albeit moderately, associated with **educational attainment**. These skills likely play a role in supporting autonomous learning and independent thinking – attributes particularly valuable in post-secondary education. They are also positively related to proficiency in **literacy, numeracy and adaptive problem solving**, above and beyond their impact on formal education. Individuals high in openness use cognitive skills more frequently and are more likely to participate in adult learning, which may contribute to their higher average cognitive proficiency.

In contrast, the associations of **agreeableness, conscientiousness** and **extraversion** are comparatively weaker and show greater variation across countries and education outcomes, suggesting a stronger sensitivity to contextual factors. These skills may be particularly relevant in early schooling, where following rules, responding to authority and cooperating with peers are more central to academic success.

Key findings include:

- **Openness to experience** and **emotional stability** are positively associated with the number of years of education attained. **Conscientiousness** shows a weak positive association with educational attainment in over half of the participating countries. In contrast, **agreeableness** and **extraversion** play a limited role.
- The association between openness and educational attainment tends to be stronger among **older adults** and those from **less-educated families**, suggesting that these skills may help navigate more limited and unequal educational opportunities. Among **younger adults**, openness and emotional stability, along with agreeableness, tend to be positively linked to participation in tertiary education.
- Social and emotional skills are linked to individuals' **field-of-study choices**. For example, openness is associated with graduating in the humanities and education fields, while extraversion is positively linked to fields in economics, law and social sciences. Adults with higher levels of conscientiousness and emotional stability are more likely to undertake science, technology, engineering and mathematics (STEM) studies, while high agreeableness and extraversion are linked to lower chances for such studies.
- **Openness to experience** shows a moderate positive association with participation in **adult learning activities**, even after controlling for education level and employment characteristics. **Extraversion** is also positively linked to continued learning, while the role of **emotional stability** varies across countries.
- **Openness to experience** and **emotional stability** are positively associated with proficiency in **literacy, numeracy and adaptive problem solving**. These associations persist even after accounting for educational attainment, suggesting a direct role of social and emotional skills in supporting cognitive development.
- Adults with higher levels of **openness** and **extraversion** are more likely to report frequent **use of literacy, numeracy and adaptive problem-solving skills** in their daily life and at work, which may help maintain and reinforce these skills over time.

Introduction

The acquisition of cognitive skills and education is often viewed through the lens of academic ability and access to formal learning opportunities. In this view, individuals are thought to develop key cognitive skills, such as literacy, numeracy and problem solving, primarily through schooling and formal instruction, with more skilled and able individuals being more likely to attain higher levels of education. Yet increasing evidence highlights the important role of social and emotional skills in shaping how individuals learn, adapt and succeed within the education system (OECD, 2024^[1]).

This chapter examines the relationships between social and emotional skills (agreeableness, conscientiousness, emotional stability, extraversion and openness to experience), key cognitive skills (literacy, numeracy and adaptive problem solving) and educational attainment. Social and emotional skills play an important role in learning: they influence how individuals approach challenges, manage motivation, interact with others and persist through difficulty – factors that are all critical to the acquisition of literacy, numeracy and adaptive problem-solving skills. These skills are also linked to decisions about whether and how individuals engage with formal education, including the highest level of education attained, the field of study pursued, and participation in adult learning activities.

However, these relationships are complex and reciprocal. Social and emotional skills do not develop in isolation; they are shaped by cognitive development and learning environments throughout the life course. Through structured tasks, long-term goal-setting, interactions with peers and teachers, and exposure to diverse ideas and perspectives, formal education can impact skills such as conscientiousness, extraversion and openness to experience. Similarly, cognitive skills can influence social and emotional development by affecting individuals' ability to reflect on their experiences and emotions, understand complex social situations, make informed decisions and regulate their behaviour in response to different demands.

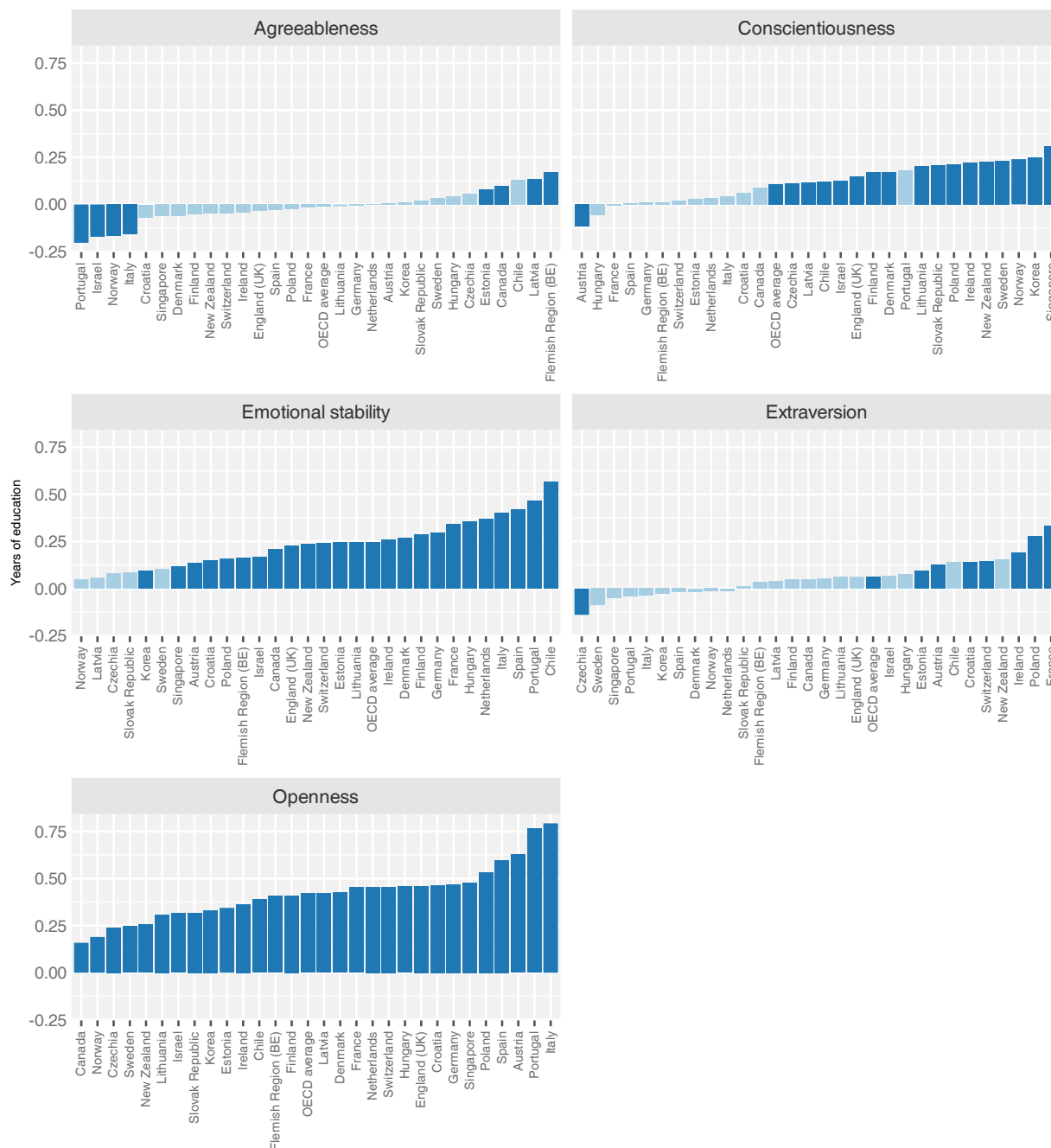
Drawing on data from the 2023 Survey of Adult Skills, the chapter explores how social and emotional skills relate to both the level of education attained and its type, as well as participation in adult learning activities. It examines how these skills relate to proficiency in literacy, numeracy and adaptive problem solving, as well as the use of cognitive skills at work and in everyday life. The findings provide valuable insights for policymakers and educators focused on developing and maintaining a skilled adult population, promoting educational attainment and encouraging enrolment in targeted fields of study.

Social and emotional skills and educational attainment

Findings from the 2023 Survey of Adult Skills indicate that, among the five domains, openness to experience shows the strongest association with educational attainment (Figure 2.1). On average across the participating OECD countries and economies, a one-standard-deviation increase of openness is associated with 0.4 additional years of education, with country-specific effects ranging from 0.2 years in Canada to 0.8 years in Italy. Emotional stability is also positively associated with educational attainment in all countries and economies except Czechia, Latvia, Norway, the Slovak Republic and Sweden. On average across the OECD, a one-standard-deviation increase in emotional stability is linked to an increase of 0.2 years of education. These results focus on adults aged 25-65 and are adjusted for socio-demographic factors, including gender, age, parental education, immigrant background, whether one lives with a partner or has children.

Figure 2.1. Openness, emotional stability and conscientiousness are positively linked to educational attainment

Change in the number of years of education attained related to a one-standard-deviation increase in the Big Five domains; 25-65 year-olds



Note: Estimates are obtained from a regression model controlling for gender, age, parental education, immigrant background, whether one lives with a partner and whether one has children. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the association of each Big Five domain with years of education attained.

Source: OECD (2024^[2]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

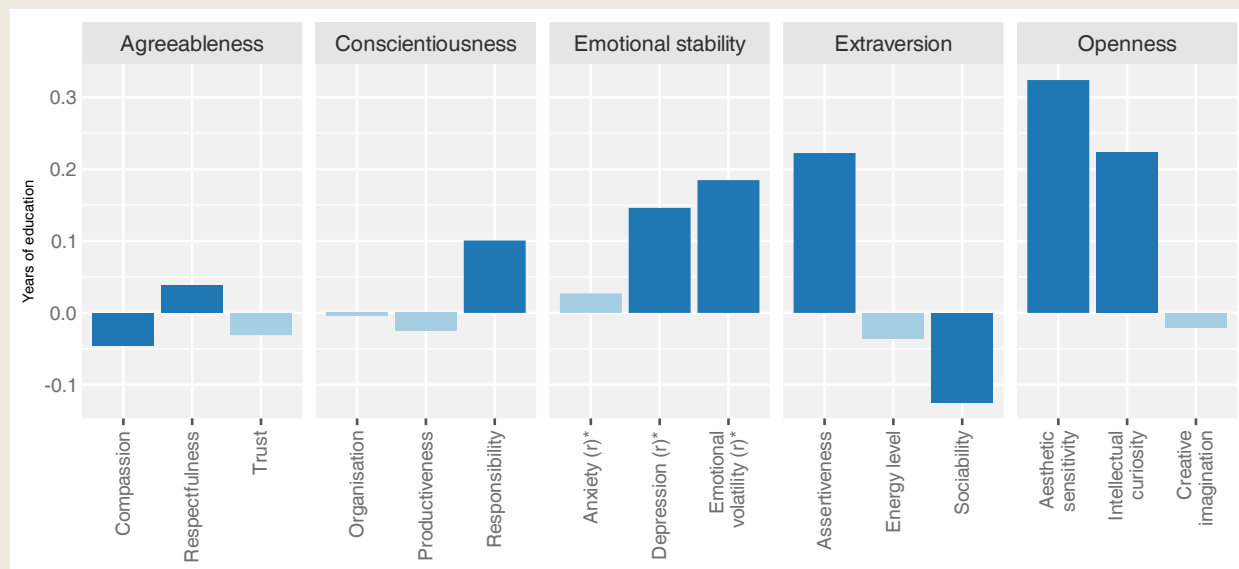
Box 2.1. The relationship between Big Five facets and years of education attained

Further analysis at the facet level indicates that the 15 Big Five facets differ in their relevance to educational attainment (Figure 2.2). On average across the OECD countries with facet-level data, the openness facets aesthetic sensitivity and intellectual curiosity are positively related to years of education attained, while creative imagination shows no significant association. For emotional stability, lower tendencies for depression and emotional volatility are significantly linked to higher educational attainment, while anxiety does not play a significant role. In the agreeableness domain, facets are only weakly or not significantly related to education.

In the conscientiousness domain, organisation and productiveness have no significant associations to years of education, which is counterintuitive, given that these traits are typically associated with effective study habits and academic success. By contrast, the responsibility facet shows a positive association, with a one-standard-deviation increase in this facet corresponding, on average, to an additional 0.1 years of education. One possible explanation is that responsibility reflects a broader sense of commitment, which may be more critical for long-term educational engagement than the day-to-day efficiency or neatness typically linked to being organised and productive.

Figure 2.2. Selected facets of openness, emotional stability and conscientiousness predict years of education

Change in the\$ number of years of education attained related to a one-standard-deviation increase in the Big Five facets; 25-65 year-olds



Note: Aggregated results across the OECD countries that used the BFI-2-S measure (see Chapter 1). Estimates are obtained from a regression model controlling for gender, age, parental education, immigrant background, whether one lives with a partner and whether one has children. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

In the domain of extraversion, facets show divergent relationships with educational attainment. Energy level is not significantly related to the length of education. Assertiveness, by contrast, has a positive

relationship, possibly because it facilitates active participation in classroom discussions, signals engagement and supports leadership in academic contexts. Conversely, sociability is negatively associated with educational attainment, suggesting that highly sociable individuals may prioritise social activities over academic ones or find formal learning environments less appealing.

Not all countries exhibit the same pattern in the association between the Big Five facets and educational attainment (see Annex A). For example, respectfulness shows a positive association with years of education in Canada, Chile, Estonia and Spain, and a negative association in Norway and Portugal. Conversely, productiveness is positively associated with years of education in Norway and Portugal, but negatively associated in Czechia and Estonia. Most notably, creative imagination shows a mixed pattern across countries, exhibiting a positive link to educational attainment in Chile, Korea and the Slovak Republic, but a negative link in Canada, Czechia, Estonia, Italy and Norway.

The associations between conscientiousness, agreeableness and extraversion with educational attainment are statistically significant in fewer countries and are relatively weaker. Conscientiousness shows a positive relationship with years of education in 16 countries and economies, and a negative association only in Austria. On average across the OECD, a one-standard-deviation increase in conscientiousness corresponds to an additional 0.1 years of education. The association between agreeableness and educational attainment varies across countries, with Israel, Italy, Norway and Portugal recording a negative association, and Canada, Estonia, the Flemish Region (Belgium) and Latvia showing a positive association. The relationship between extraversion and years of education is positive in Austria, Croatia, Estonia, Ireland, France, Poland and Switzerland, but negative in Czechia.

Overall, the observed relationships align with previous findings. Especially openness to experience and emotional stability have been shown to be positively linked to the level of education attained, while the relationships with extraversion, agreeableness and conscientiousness are less consistent across studies (Lundberg, 2013^[3]; Rammstedt, Lechner and Danner, 2024^[4]; Van Eijck and De Graaf, 2004^[5]).

Several mechanisms may underly such results. First, social and emotional skills can foster learning and academic performance, making it more likely for individuals to achieve the academic success needed to pursue higher levels of education. Findings from the 2023 Survey on Social and Emotional Skills (SSES) have shown that skills related to openness, such as curiosity, and those linked to conscientiousness, including achievement motivation, persistence and responsibility, are positively associated with 15-year-old students' grades in maths, reading and the arts (OECD, 2024^[1]). Second, social and emotional skills may impact students' motivation and ambition to continue their education. Findings from the same study indicate that students who score higher in the openness domain, especially in creativity and tolerance, as well as in conscientiousness, are more likely to expect to complete tertiary education (OECD, 2024^[1]). Third, social and emotional skills may also play a signalling role in education systems. For example, behaviours associated with strong intellectual curiosity may be perceived by teachers as indicators of academic potential, thereby influencing the academic opportunities and encouragement students receive.

At the same time, it is possible that the observed correlations are partly due to the fact that education itself can influence the development of social and emotional skills. The hypothesis that social and emotional skills are shaped by education has been investigated in the academic literature. For example, a study investigated the causal impact of the length of schooling on students' Big Five traits by exploiting variation in the length of the academic school track in Germany resulting from a school reform introduced at the state level. It found that shortening the academic high school track by one year led to students becoming, on average, more extraverted but less emotionally stable (Dahmann and Anger, 2014^[6]).

Overall, the results suggest that openness to experience and emotional stability play a more prominent role in shaping educational attainment across countries. Additional analyses show that the facet

responsibility also plays a role (see Box 2.1). These skills likely support autonomous learning, independent thinking, long-term goal-setting and sustained effort over time – attributes particularly valuable in post-secondary education. In contrast, social and emotional skills related to compliance, such as agreeableness or certain facets of conscientiousness, as well as extraversion, appear to be less predictive of overall educational attainment.

Social and emotional skills play a different role for education among different age groups

The association between the Big Five domains and educational attainment may differ between younger and older adults, reflecting the distinct educational contexts they experienced. For older cohorts, access to higher levels of education was often constrained by social, gender and regional disparities. In these settings, social and emotional skills, particularly those linked to openness to experience, emotional resilience and conscientiousness, may have played a more decisive role in navigating these barriers and persisting in the education system. In contrast, younger adults have generally benefited from expanded access to education and more inclusive education policies, which may have reduced the relative influence of social and emotional skills on educational attainment.

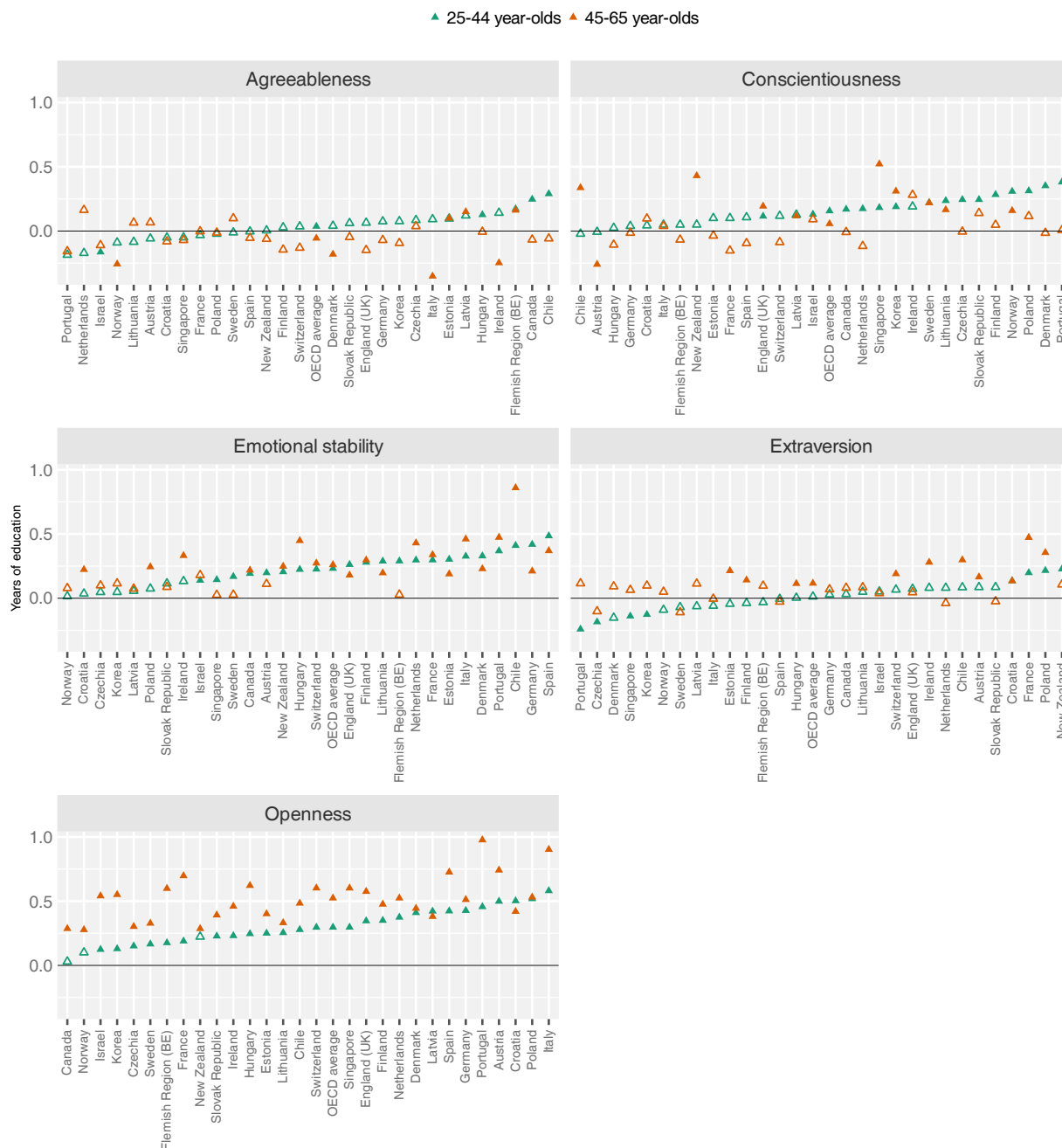
Figure 2.3 shows how the Big Five domains are related to years of education attained across two age groups: 25-44 and 45-65 year-olds. The largest differences between the groups are observed in the domain of openness to experience. In nearly half of the countries and economies, the association between openness and years of education attained is significantly stronger among older adults than among younger ones. On average across OECD countries and economies, a one-standard-deviation increase in openness is associated with an additional 0.5 years of education in the older age group, compared to 0.3 years in the younger group. Nevertheless, openness to experience continues to play a meaningful role for educational attainment among younger adults in all countries except Canada, Norway and New Zealand.

In the other Big Five domains, the relationships between social and emotional skills and years of education are generally similar between younger and older adults, with some notable exceptions. Conscientiousness plays a stronger role for educational attainment among older adults than among younger ones in Chile and Singapore, while it is more important for attaining education among younger adults in Czechia, Denmark, Finland, the Netherlands, Poland and Switzerland. Similarly, emotional stability is more strongly related to years of education attained among older adults in Chile and Hungary, while it has a stronger association with educational attainment among the younger age group in the Flemish Region (Belgium) and Germany.

Figure 2.4 focuses on younger adults aged 19-29 participating in the 2023 Survey of Adult Skills and examines the association between their self-reported social and emotional skills and their participation in tertiary education. In about one-third of the participating countries, openness to experience positively relates to the likelihood of being enrolled in or having completed tertiary education. Eleven countries record positive associations between agreeableness and tertiary education participation. Emotional stability is positively associated with tertiary education participation among young adults in Chile, England (United Kingdom), Estonia, the Flemish Community (Belgium), France, Israel, Ireland and New Zealand, while conscientiousness shows a significant positive association in Finland, Lithuania and Sweden. Extraversion is positively related to the likelihood of participating in or completing tertiary education only in the Slovak Republic and shows a negative relationship in Portugal.

Figure 2.3. Openness to experience is more strongly linked to educational attainment among older adults

Change in the number of years of education attained related to a one-standard-deviation increase in the Big Five domains, 25-44 and 45-65 year-olds



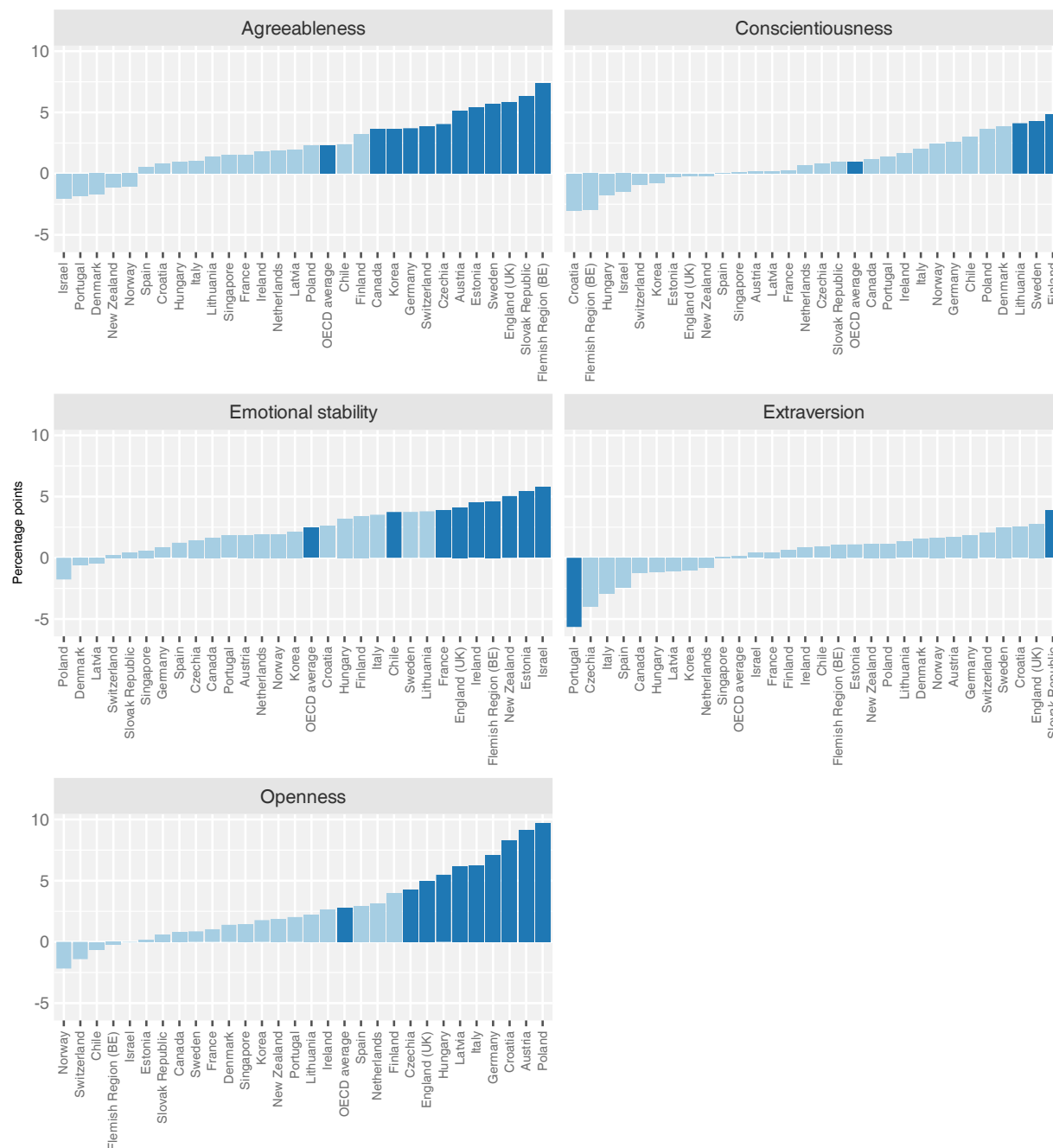
Note: Estimates are obtained from a regression model controlling for gender, parental education, immigrant background, whether one lives with a partner and whether one has children. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the association of each Big Five domain with years of education attained among 25-44 year-olds.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 2.4. Openness and agreeableness are positively linked to tertiary education participation among younger adults in many countries

Change in the likelihood for participating in or having completed tertiary education related to a one-standard-deviation increase in the Big Five domains; 19-29 year-olds



Note: Estimates are obtained from a regression model controlling for gender, age, parental education, immigrant background, whether one lives with a partner and whether one has children. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the association of each Big Five domain with tertiary education participation.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Openness is more strongly linked to education among less privileged adults

By the same logic, the relationship between social and emotional skills and educational attainment may also vary depending on individuals' family background, particularly the educational level of their parents. Adults from lower-educated families – those whose parents did not attain tertiary education – often face more structural and informational barriers when navigating the education system. In such contexts, social and emotional skills may play a more critical role in supporting persistence, motivation and self-directed learning. By contrast, individuals with highly educated parents – those with at least one parent who attained tertiary education – are more likely to grow up in environments that value and support education, regardless of their social and emotional profile. In these cases, the influence of social and emotional skills on educational attainment may be less pronounced, as family background itself provides strong support for educational progression.

Figure 2.5 shows that openness to experience tends to be more strongly linked to educational attainment among adults aged 25-65 with lower-educated parents. In about half of the countries and economies, this association is significantly stronger than the association observed for adults with tertiary-educated parents. For conscientiousness and extraversion, this pattern emerges in only a few countries. Conscientiousness matters more for the educational attainment of adults with lower-educated parents in Lithuania and Singapore, while it plays a more prominent role for the educational attainment of adults with highly educated parents in Czechia and Hungary. Extraversion tends to be more important for education among adults with lower-educated parents in Chile, England (United Kingdom), France, Hungary and Norway.

Overall, the relationship between social and emotional skills and educational attainment varies across socio-demographic groups and country contexts, but skills related to openness to experience and emotional stability consistently emerge as important predictors. The association between openness and educational attainment tends to be stronger among older adults and adults from less privileged backgrounds, suggesting that these skills may help navigate more limited and unequal educational opportunities. Among younger adults, openness and emotional stability, together with agreeableness, play a meaningful role in pursuing tertiary education in many countries.

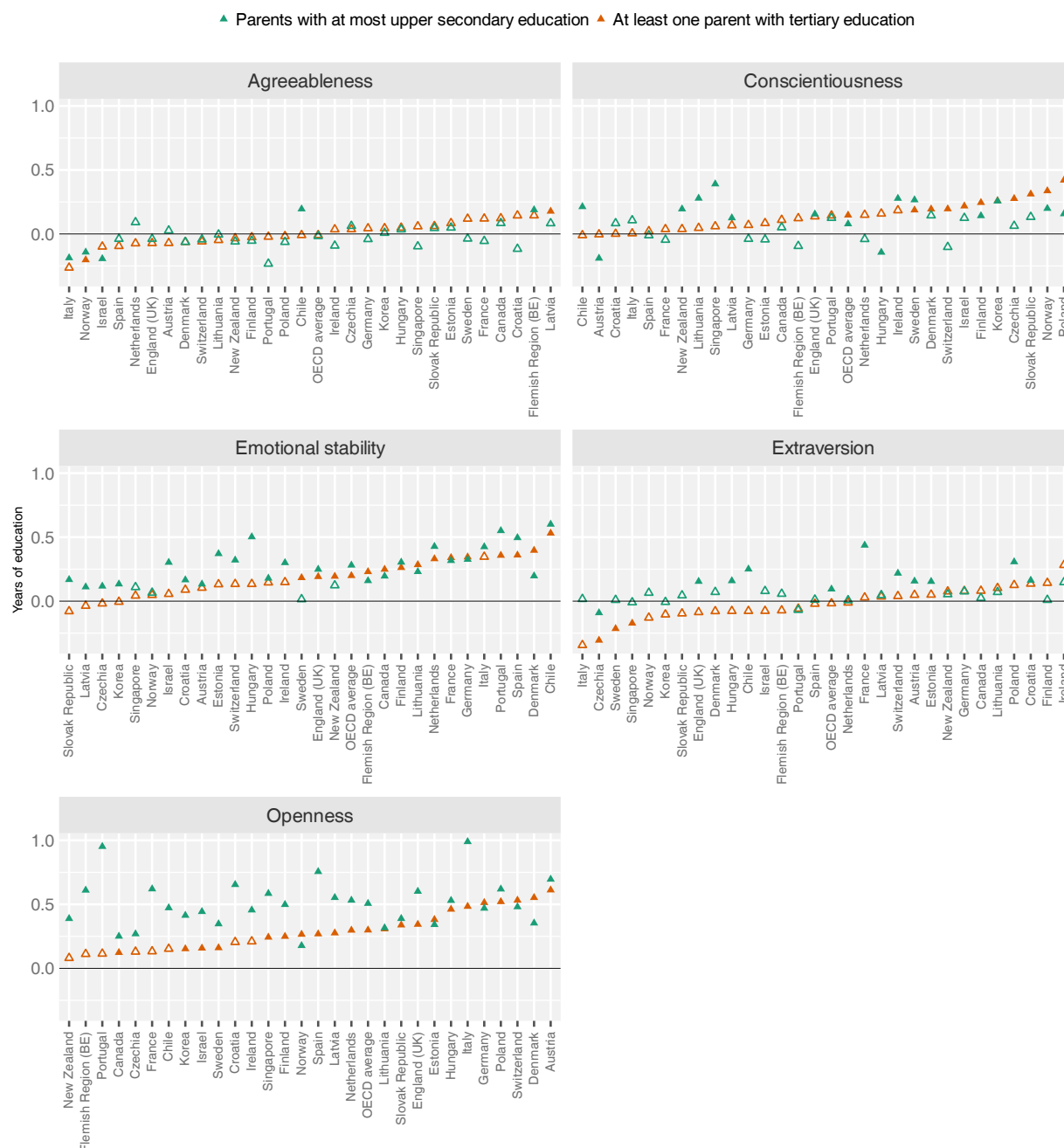
Social and emotional skills and the field of study

Choosing a field of study reflects personal preferences, motivations and behavioural tendencies – many of which are rooted in individuals' social and emotional profiles. These skills may shape how individuals perceive their own fit within different disciplines and potential career paths. For example, individuals high in openness to experience may be more drawn to fields that encourage exploration and creativity, while those high in conscientiousness may prefer structured and rule-based disciplines. Understanding how such skills relate to field-of-study choices is important for several reasons: it can shed light on how individuals navigate complex decisions about their future, help explain patterns of segregation across disciplines and inform education policies aimed at supporting more inclusive and future-oriented guidance systems.

Previous studies show that while cognitive skills have a stronger impact on educational attainment, social and emotional skills are at least as important for the choice of subject (Humburg, 2017^[7]). Studies consistently show that social and emotional skills, as measured by the Big Five framework, are systematically linked to specific fields of study (Coenen, Borghans and Diris, 2021^[8]; OECD, 2024^[1]; Thørrisen and Sadeghi, 2025^[9]). Some of these studies rely on longitudinal data and assess students' socio and emotional skills prior to their entry into higher education (e.g. Humburg (2017^[7])). Their findings suggest that these skills influence students' preferences for specific fields. However, the reverse may be also hold: the social environment of different fields can shape the development of social and emotional skills.

Figure 2.5. Openness has a stronger link to educational attainment among adults with lower-educated parents

Change in the number of years of education attained related to a one-standard-deviation increase in the Big Five domains, by parental education; 25-65 year-olds



Note: Estimates are obtained from a regression model controlling for age, gender, immigrant background, whether one lives with a partner and whether one has children. Darker colours denote differences that are statistically significant at the 5% level.

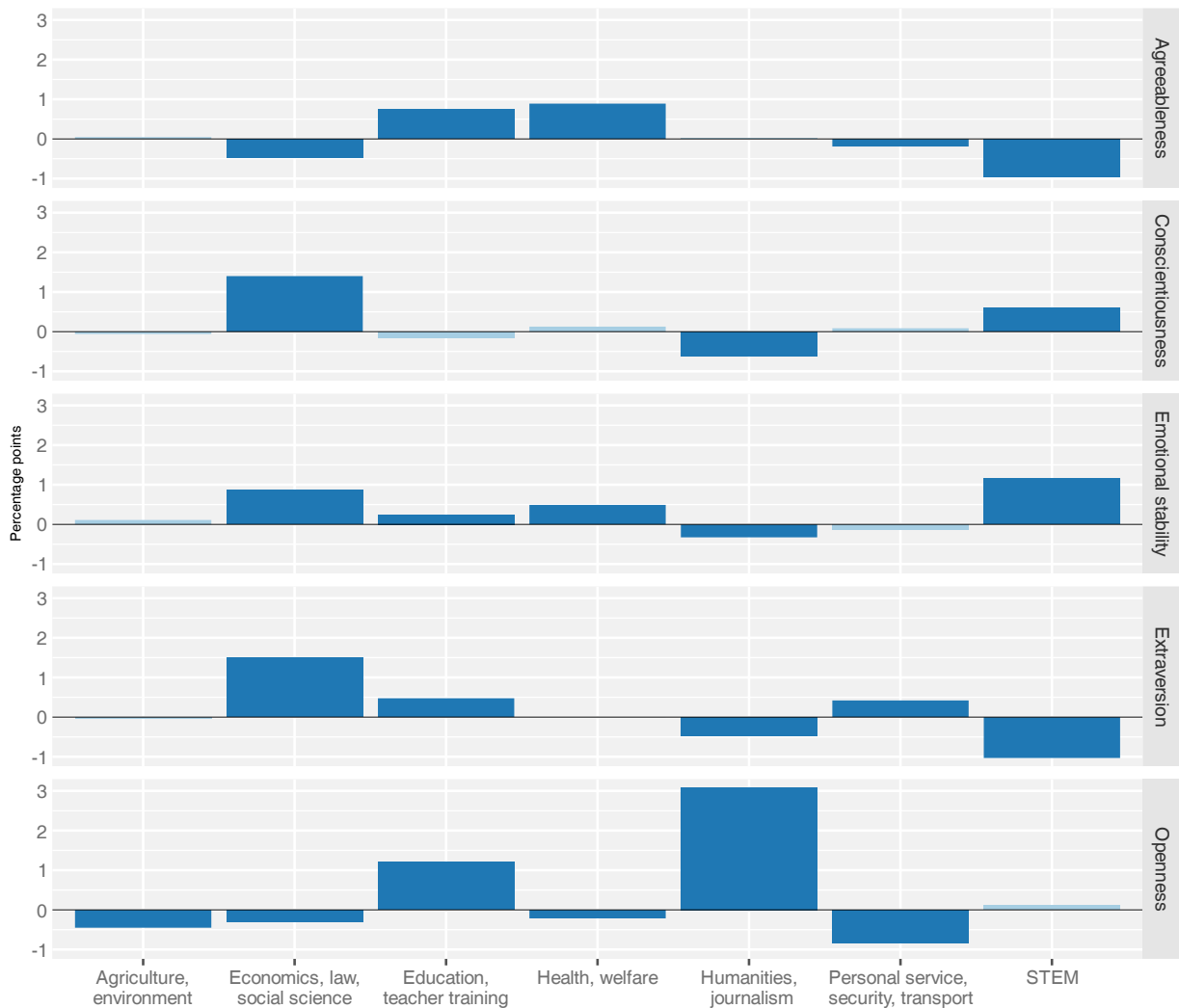
Countries and economies are ranked in ascending order of the association of each Big Five domain with years of education attained among 25-65 year-olds with at least one tertiary-educated parent.

Source: OECD (2024^[2]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Results of the 2023 Survey of Adult Skills largely confirm the relationships between social and emotional skills and field of study among tertiary-educated 25-65 year-olds (Figure 2.6). Most notably, openness to experience and agreeableness positively relate to the likelihood of having pursued studies in education and teaching, on average across countries and after controlling for other factors. Openness is also positively related to graduating in the humanities, whereas higher extraversion, emotional stability and conscientiousness are linked to a lower likelihood for these studies. In contrast, extraversion, emotional stability and conscientiousness positively relate to the likelihood of graduating in economics, social sciences or law. Agreeableness shows a positive association with graduating from fields related to health or welfare. Conscientiousness and emotional stability are positively associated with graduation from STEM-related fields, while agreeableness and extraversion show a negative relationship.

Figure 2.6. Social and emotional skills matter for field-of-study choice

Change in the likelihood for a particular field of study related to a one-standard-deviation increase in the Big Five domains; 25-65 year-olds with tertiary education



Note: Estimates are obtained from a regression model controlling for age, gender, parental education, immigrant background, whether one lives with a partner and whether one has children. Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

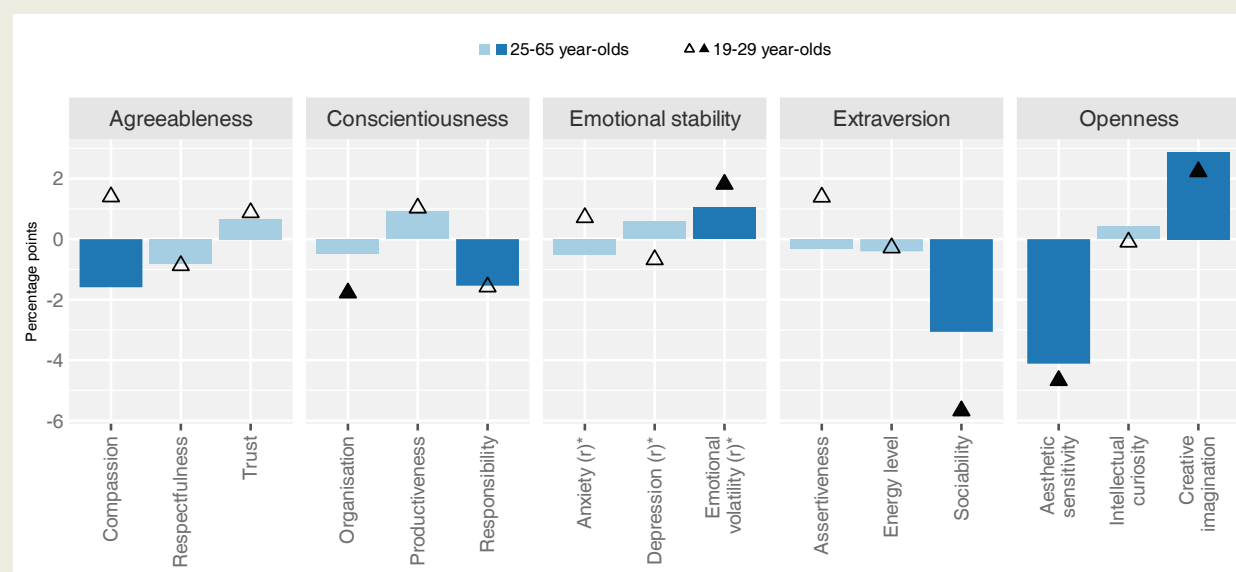
Box 2.2. Relationship between Big Five facets and pursuing a STEM field of study

Figure 2.7 focuses on the links between the 15 Big Five facets and pursuing a STEM field of study, based on aggregated results from the OECD countries with facet-level information. STEM fields are central to innovation, productivity and economic growth, and yet they remain highly selective and often underrepresent certain groups. While much attention has been given to the role of cognitive ability and academic preparation in choosing STEM, the influence of specific social and emotional skills on entry into and completion of these programmes remains less known.

Figure 2.7 shows these associations both for adults aged 25-65 with completed tertiary education and for those aged 19-29 who are enrolled in or have completed tertiary education. For both groups, creative imagination and a low tendency for emotional volatility are positively associated with studying or graduating from a STEM field of study. In contrast, aesthetic sensitivity and sociability show negative associations, suggesting a preference for people- or art-oriented contexts over task-oriented, analytical environments. Within the domain of conscientiousness, responsibility has a negative association with the likelihood of pursuing STEM among 25-65 year-olds, while organisation has a negative association among 19-29 year-olds. Additionally, compassion has a negative association among the older age group.

Figure 2.7. Creative imagination and emotional stability support entry and graduation in STEM

Change in the likelihood for participating in or having completed STEM studies related to a one-standard-deviation increase in the Big Five facets; 25-65 year-olds with tertiary education and 19-29 year-olds enrolled in or having completed tertiary education



Note: Aggregated results across the OECD countries that used the BFI-2-S measure (see Chapter 1). Estimates are obtained from a regression model controlling for age, gender, parental education, immigrant background, whether one lives with a partner and whether one has children. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

In sum, different social and emotional skills are associated with different fields of study, reflecting the varied demands and environments of each discipline. For STEM fields, which are key to shaping the future through innovation, higher creative imagination and greater emotional stability appear important for participation and graduation, across younger and older cohorts (see Box 2.2).

Social and emotional skills and participation in adult learning

In a rapidly changing world of work, lifelong learning is essential for maintaining employability, adapting to new technologies and navigating career transitions. While factors such as educational background, employment status and access to training opportunities are well-known predictors of adult learning participation (OECD, 2025^[10]), social and emotional skills may also influence whether and how adults engage in learning throughout life (Klinkhammer, R  ther and Schemmann, 2024^[11]; Laible, Anger and Baumann, 2020^[12]; S  rman et al., 2024^[13]).

Results of the 2023 Survey of Adult Skills show that the Big Five domains are only moderately associated with participation in non-formal learning activities, and these associations are not significant in all countries (Figure 2.8). The analysis focuses on adults aged 25-65 and accounts for the impact of other factors, including respondents' educational attainment and industry of employment. Non-formal learning is defined as intentional and institutionalised learning that is typically of short duration. It includes courses, webinars, workshops, lectures or private lessons that respondents attended voluntarily for job-related or personal reasons over the 12 months preceding the assessment.

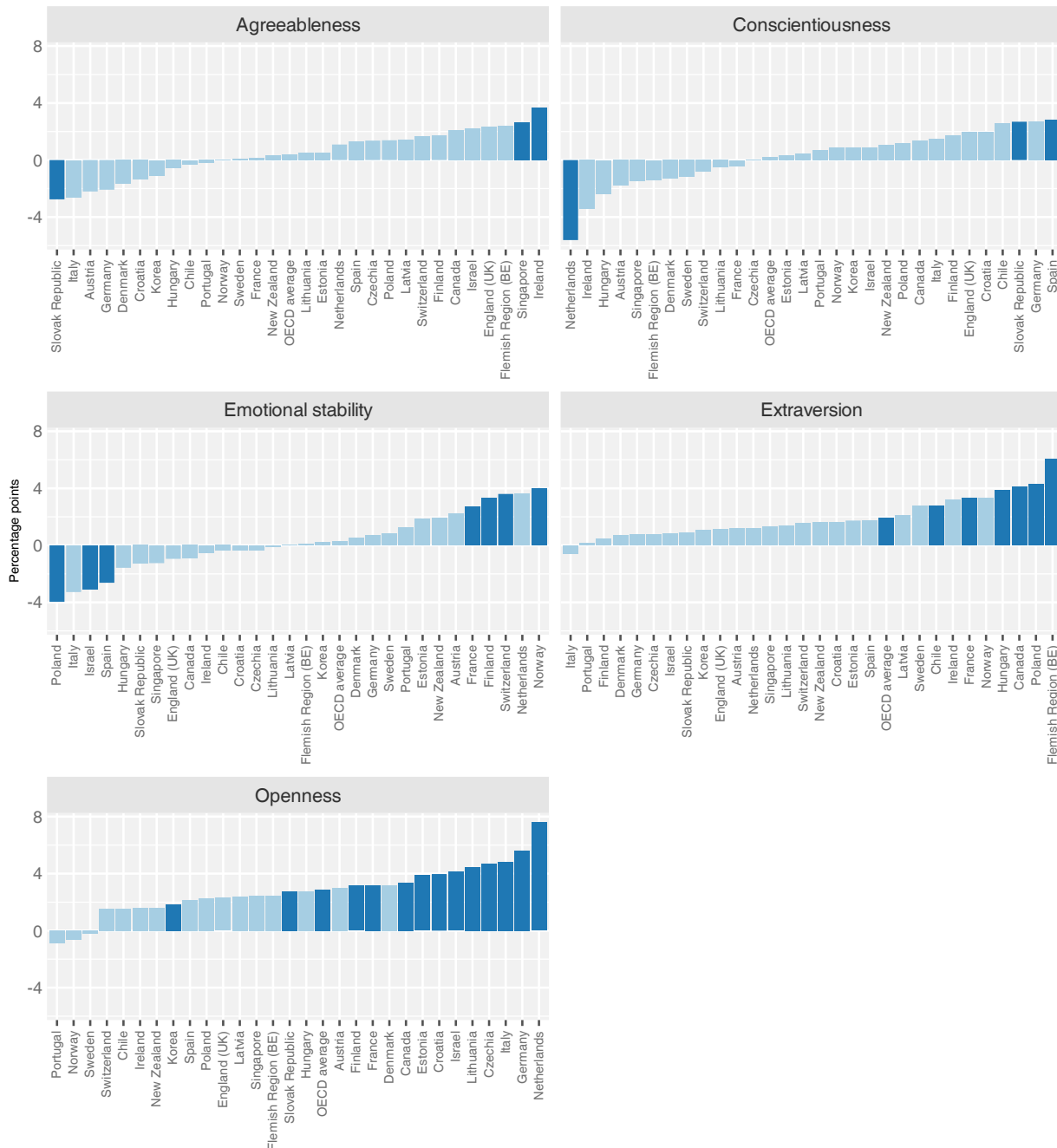
Among the Big Five domains, openness to experience stands out as the domain most strongly linked to adult learning participation. In 13 countries, higher levels of openness are associated with a greater likelihood of participating in learning activities, with the sizes of these associations ranging from a 2-percentage-point higher likelihood per standard-deviation increase in openness in Korea to 8 percentage points in the Netherlands. Extraversion is also positively related to adult learning in several countries and economies, including Canada, Chile, France, Hungary, the Flemish Region (Belgium) and Poland.

By contrast, the domains of emotional stability, conscientiousness and agreeableness play a role in adult learning participation in only a few countries. Emotional stability is positively related to adult learning participation in Finland, France, Norway and Switzerland, and negatively associated in Israel, Poland and Spain. Conscientiousness has a positive association in the Slovak Republic and Spain but a negative association in the Netherlands. Similarly, agreeableness shows a positive link in Ireland and Singapore and a negative one in the Slovak Republic.

These findings suggest that openness to experience continues to impact the participation in learning activities, beyond and above its impact on participation in formal education. However, these associations are statistically significant in less than half of the countries and economies and their strength is generally weak to moderate. At the facet level, the positive associations of aesthetic sensitivity and intellectual curiosity highlight the importance of intrinsic motivation and interest in learning as drivers of adult learning engagement (Box 2.3).

Figure 2.8. Openness to experience is positively linked to adult learning participation in many countries

Change in the likelihood for participating in adult learning activities during the year prior to the survey related to one-standard-deviation increase in Big Five domains; 25-65 year-olds



Note: Estimates are obtained from a regression model controlling for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children, educational attainment and industry. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the association of each Big Five domain with participation in adult learning activities.

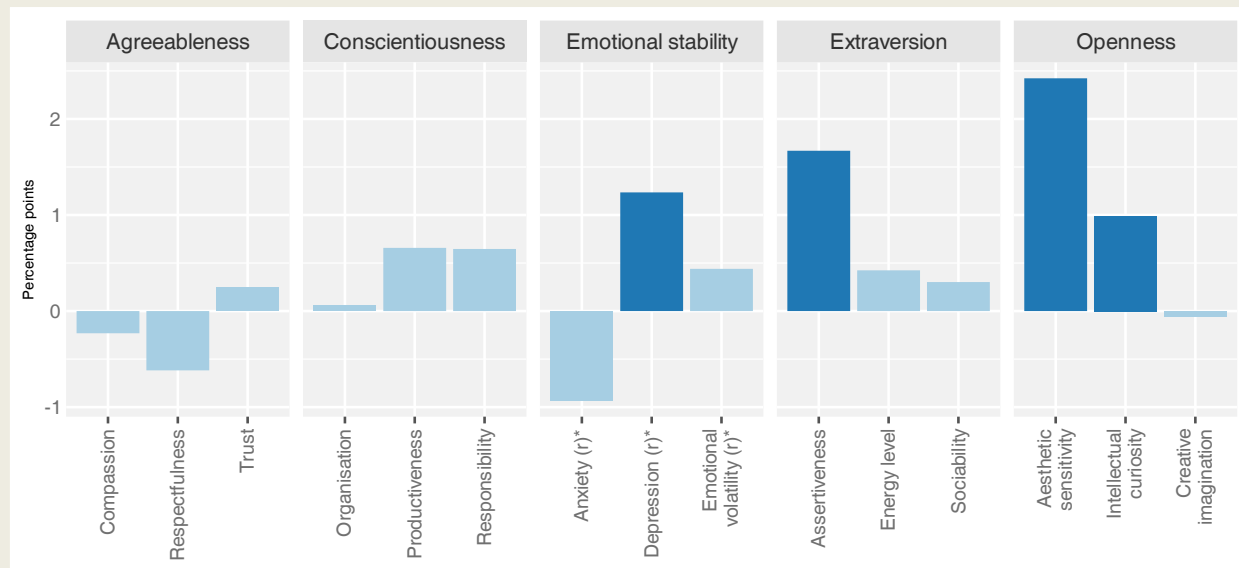
Source: OECD (2024^[2]), Survey of Adult Skills (PIAAC) databases, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Box 2.3. The relationship between Big Five facets and participation in non-formal learning

Figure 2.9 shows how the 15 Big Five facet skills relate to adult learning participation, on average, across the OECD countries with available data, and net of the impact of other factors. Within the domain of openness to experience, aesthetic sensitivity and intellectual curiosity show moderate positive associations with adult learning participation, whereas creative imagination is not related to adult learning participation, on average across countries. Among the extraversion facets, assertiveness has a weak positive association, while in the domain of emotional stability, a lower tendency for depression is linked to a somewhat higher likelihood of participating in adult learning activities.

Figure 2.9. Aesthetic sensitivity and intellectual curiosity support participation in adult learning activities

Change in the likelihood for participating in adult learning activities during the year prior to the survey related to a one-standard-deviation increase in the Big Five facets; 25-65 year-olds



Note: Aggregated results across the OECD countries that used the BFI-2-S measure (see Chapter 1). Estimates are obtained from a regression model controlling for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children, educational attainment and employment industry. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Social and emotional skills and cognitive skills

This section explores the relationship between social and emotional skills and the key cognitive skills assessed in the 2023 Survey of Adult Skills. While cognitive ability and formal education are well-established drivers of proficiency in literacy, numeracy and problem solving, social and emotional skills – captured through the Big Five model – are increasingly recognised as contributors to skill development across the life course (Rammstedt et al., 2025^[14]).

Social and emotional skills can influence cognitive skills in different ways. Most directly, they can support the development, use and maintenance of cognitive skills through behaviours and attitudes that enhance learning. For example, individuals high in openness to experience may be more inclined to seek out new knowledge and intellectual stimulation, while those high in conscientiousness may demonstrate the sustained effort and self-discipline needed for skill acquisition. Emotional stability may mitigate test anxiety and foster confidence, supporting both performance and learning. Though less intuitively linked to cognitive skills, extraversion and agreeableness may play a role by influencing how individuals interact in learning environments or seek support from teachers and peers.

At the same time, social and emotional skills can affect the development of cognitive skills indirectly, by shaping individuals' education trajectories. The previous sections showed that openness to experience and emotional stability are positively linked to educational attainment, a key predictor of proficiency in information-processing skills. In addition, openness and extraversion support adult learning participation, thereby contributing to skills maintenance and further development. To address this, the analysis in this section presents estimates both with and without accounting for educational attainment, thereby helping to distinguish the direct associations between socio-emotional and cognitive skills from those operating through education. Furthermore, these analyses focus on adults' literacy proficiency, while results for numeracy and adaptive problem solving are briefly summarised and presented in Annex A.

Individuals high in openness to experience and emotional stability tend to have stronger literacy skills

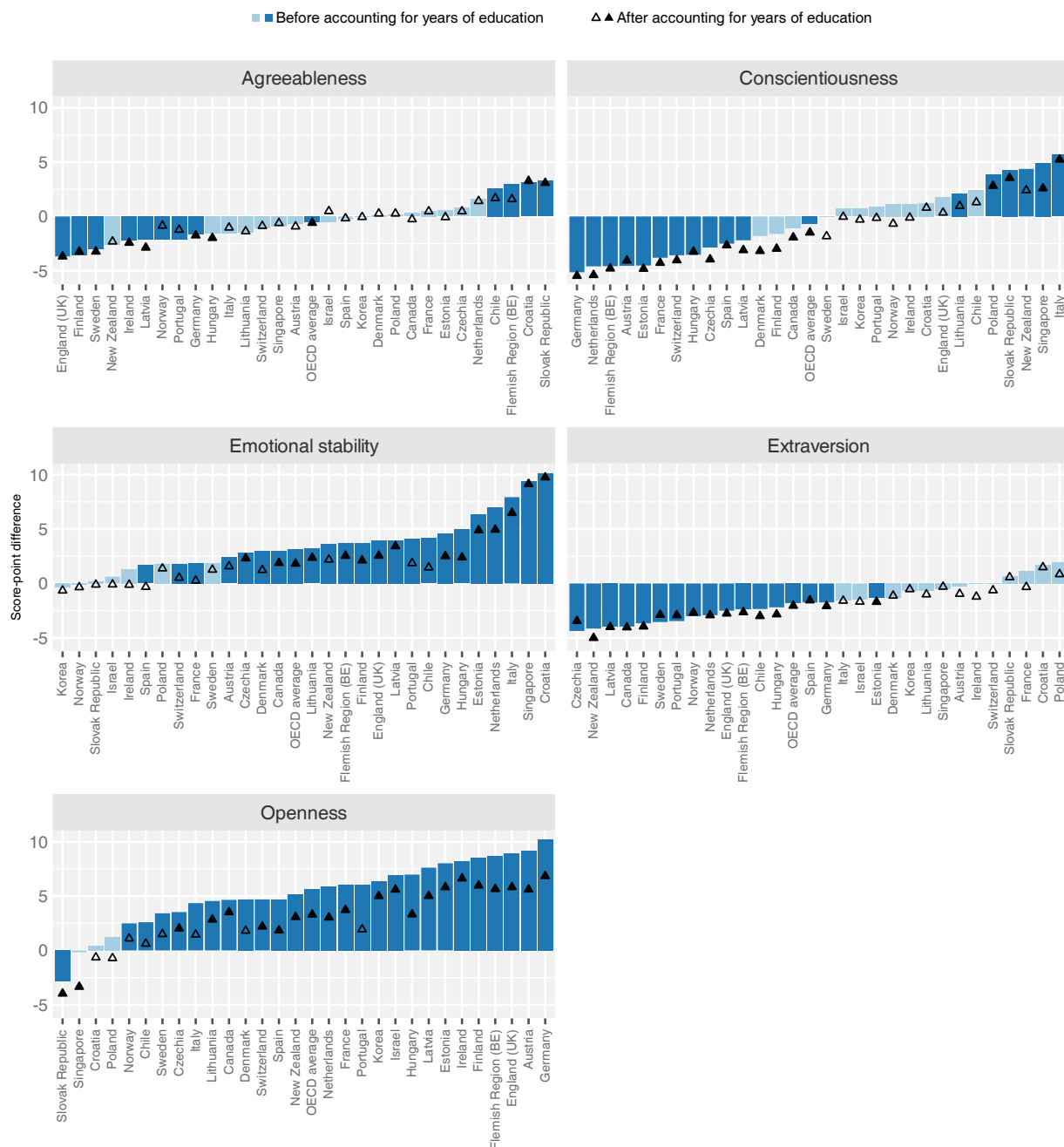
Among the Big Five domains, openness to experience shows the strongest association with literacy proficiency (Figure 2.10). On average across OECD countries, a one-standard-deviation higher openness corresponds to a 6-point increase on the literacy scale. This association is positive in nearly all countries and economies, except Croatia, Poland and Singapore (where it is not statistically significant), and the Slovak Republic (where it is negative). Emotional stability is also positively related to literacy proficiency in most countries, with an average 3-point increase in proficiency per standard-deviation increase. Exceptions are Ireland, Israel, Korea, Norway, the Slovak Republic, Sweden and Poland, where the association is not significant. Controlling for educational attainment reduces the associations between emotional stability and openness with literacy in most countries, as these domains are positively linked to education attainment. Nonetheless, the associations remain significant in most countries, indicating that these skill domains contribute to literacy outcomes above and beyond their impact on education.

The remaining domains show a different pattern. Extraversion has a moderate negative association with literacy proficiency in 16 countries and economies. This may reflect a preference for social engagement over solitary reading or study, or differences in how individuals respond to test environments. Conscientiousness shows a negative association in 11 countries and a positive association in six countries. A possible explanation for the negative associations is that, in these contexts, conscientiousness may serve as a compensatory trait among individuals with lower literacy skills. Finally, agreeableness is negatively related to literacy proficiency in eight countries and positively related in four countries. After accounting for educational attainment, the associations between the three Big Five domains and literacy remain largely the same, as the domains have a small or not significant association with education.

The Big Five skill domains and facets show very similar associations with numeracy and adaptive problem solving (Annex A). A notable difference is that emotional stability is somewhat more strongly associated with numeracy than with literacy or APS across countries. In contrast, extraversion shows a negative association with numeracy in fewer countries and economies than it does with literacy and APS.

Figure 2.10. Openness and emotional stability show a moderate positive link to literacy proficiency, even after accounting for education

Adjusted changes in literacy proficiency related to a one-standard-deviation increase in the Big Five domains, before and after accounting for educational attainment; 16-65 year-olds



Note: Estimates are obtained from a regression models controlling for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children and – in a second step – for educational attainment. Darker colours denote differences that are statistically significant at the 5% level. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024^[15]). Countries and economies are ranked in ascending order of the association of each Big Five domain with literacy proficiency, which is unadjusted for education.

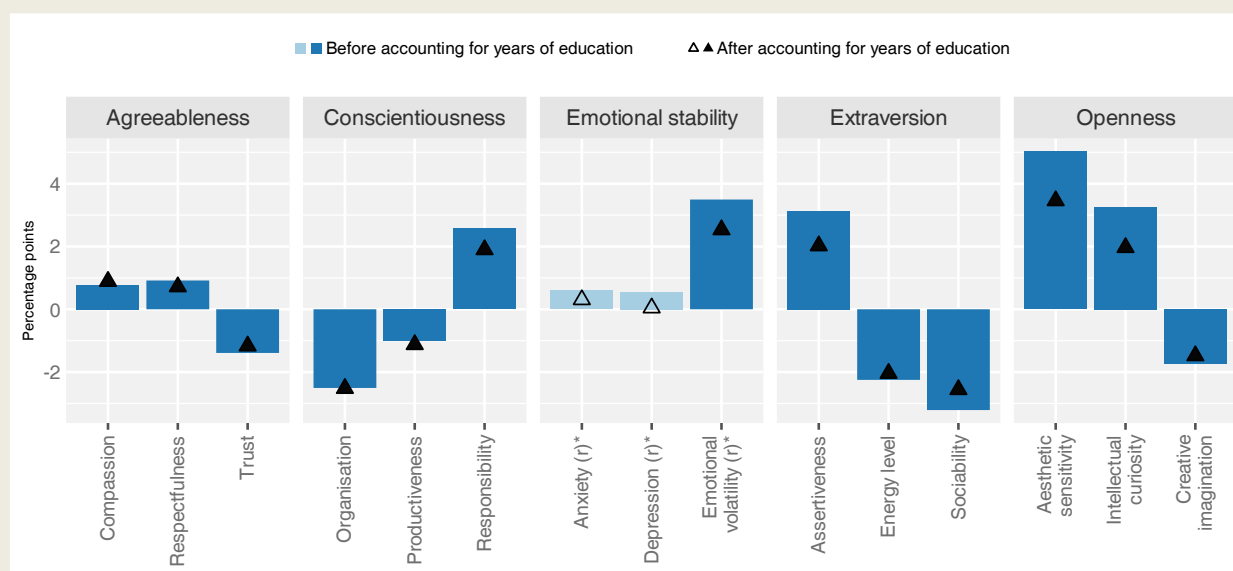
Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Box 2.4. The relationship between Big Five facets and literacy proficiency

At the facet level, higher levels of aesthetic sensitivity, intellectual curiosity, assertiveness and responsibility, as well as lower tendency toward emotional volatility, are linked to somewhat higher literacy proficiency, on average across the OECD countries with available data (Figure 2.11). These associations are attenuated when accounting for the mediating role of educational attainment. In contrast, creative imagination, sociability, energy level and organisation are negatively related to literacy proficiency, while the agreeableness facets and productiveness display only weak links.

Figure 2.11. Facets within the same Big Five domain show different associations with literacy proficiency

Adjusted changes in literacy proficiency related to a one-standard-deviation increase in Big Five facets, before and after accounting for educational attainment



Note: Adults aged 16-65; aggregated results across the OECD countries that used the BFI-2-S measure (see Chapter 1). Estimates are obtained from regression models controlling for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children and – in a second step – for educational attainment. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Individuals high in openness to experience tend to read more frequently

The above findings suggest that openness to experience and emotional stability may relate to literacy skills through mechanisms other than educational participation. One such mechanism may be the regular use of literacy skills in daily life. Individuals high in openness to experience or emotional stability may be more inclined to seek out opportunities to read and learn, thereby reinforcing and sustaining their literacy skills over time.

Figure 2.12 shows the association between the Big Five domains and adults' engagement in reading practices. The latter is measured using an item response theory (IRT)-based index on how frequently respondents engage with different reading tasks (e.g. reading books, instructions, letters, memos, emails, newspaper articles, manuals, bills, invoices, scholarly publications) (OECD, 2024^[16]). Among the Big Five domains, openness to experience is associated with stronger engagement in reading practices across all countries and economies. On average across OECD countries, a one-standard-deviation increase in openness to experience is linked to a 0.2 standard-deviation increase on the index of reading in everyday life, and a 0.15 standard-deviation increase on the index of reading at work.

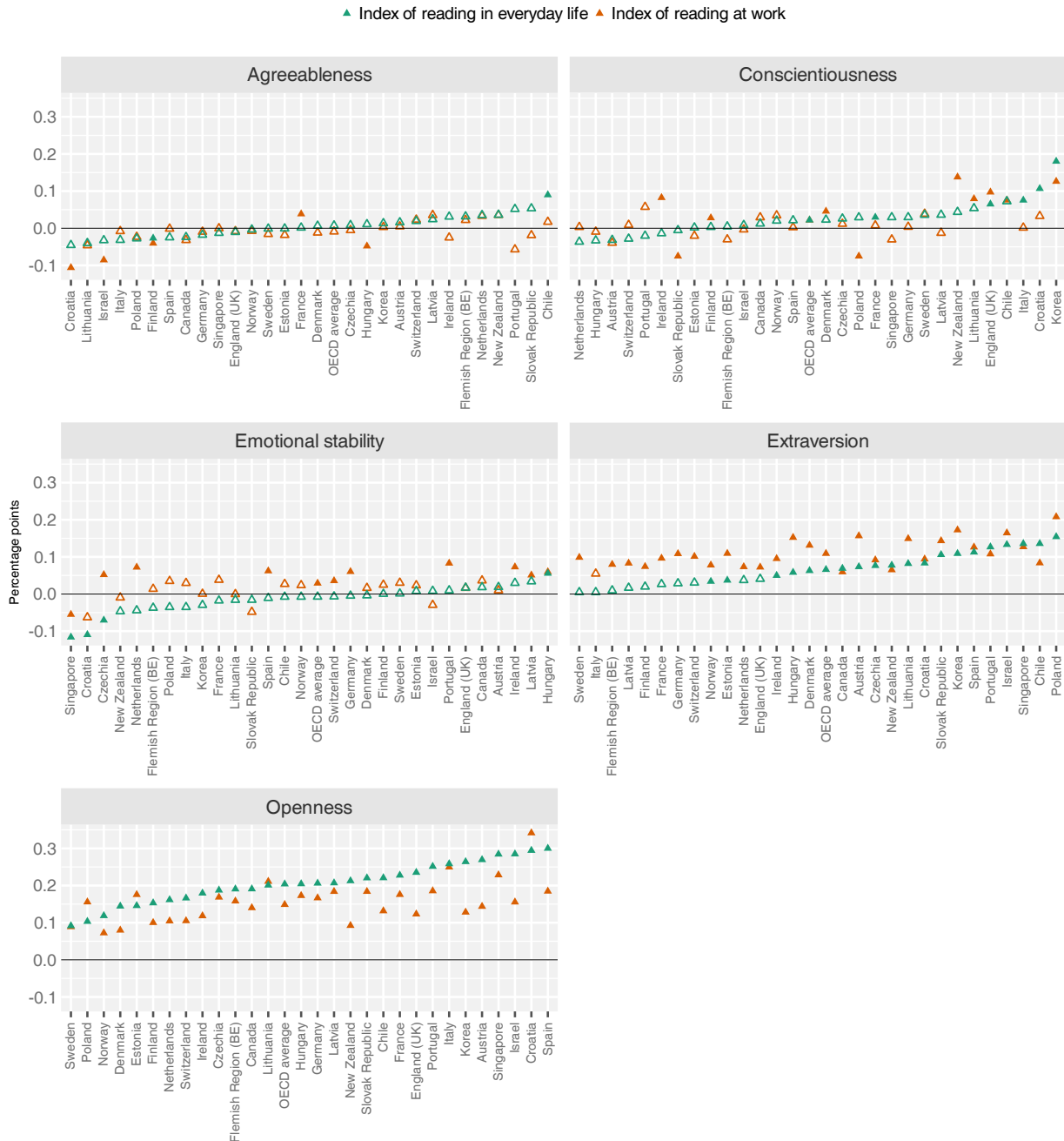
In contrast, emotional stability is associated with reading practices in only a few countries. In Croatia, Czechia and Singapore, this association is negative, with more emotionally stable individuals reading, on average, somewhat less frequently in everyday life contexts, and, in Singapore, also at work. The domains of agreeableness and conscientiousness also play a limited role in adults' use of literacy skills. Notable exceptions are England (United Kingdom) and Korea, where higher conscientiousness is linked to more frequent engagement in reading tasks at home and work, and Chile, where agreeableness is positively associated with the frequency of reading at home.

Extraversion shows a moderate positive association with adults' use of literacy skills in daily life, and a somewhat stronger association with their use of literacy at work. This contradicts the finding that extraversion is linked to slightly lower literacy proficiency, other things being equal. Extraverted individuals tend to be more socially and professionally active, which can expose them to more situations requiring the use of reading (e.g. reading emails). Their positive affect and social motivation may also make them more likely to engage in everyday tasks that involve literacy, even if they do so with slightly lower proficiency.

Additional analyses presented in Annex A explore the relationships between the Big Five domains and the use of numeracy and problem solving. The results closely resemble those for literacy use. Openness to experience is positively linked to numeracy use in everyday life across all participating countries and shows a significant positive link to numeracy use at work in 26 countries. The domain is also significantly related to more frequent solving of simple and complex problems at work in most countries. Extraversion is likewise positively related to the use of numeracy and problem solving in the majority of countries. By contrast, agreeableness, conscientiousness and emotional stability show no significant associations in most countries.

Figure 2.12. Higher openness to experience is linked to more frequent use of literacy skills

Changes in the indices of use of literacy skills in everyday life and at work (in standard deviations) related to a one-standard-deviation increase in the Big Five domains, 25-65 year-olds



Note: Estimates are obtained from regression models controlling for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children and educational attainment.

Countries and economies are ranked in ascending order of the association of each Big Five domain with the index of reading in everyday life.

Source: OECD (2024^[2]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025)

Table 2.1. Chapter 2 Figures

Figure 2.1	Openness, emotional stability and conscientiousness are positively linked to educational attainment
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References

- Coenen, J., L. Borghans and R. Diris (2021), “Personality traits, preferences and educational choices: A focus on STEM”, *Journal of Economic Psychology*, Vol. 84, p. 102361, <https://doi.org/10.1016/j.joep.2021.102361>. [8]
- Dahmann, S. and S. Anger (2014), “The Impact of Education on Personality: Evidence from a German High School Reform”, *IZA Discussion Papers*, Vol. IZA DP No. 8139, <https://docs.iza.org/dp8139.pdf> (accessed on 30 June 2025). [6]
- Humburg, M. (2017), “Personality and field of study choice in university”, *Education Economics*, Vol. 25/4, pp. 366-378, <https://doi.org/10.1080/09645292.2017.1282426>. [7]
- Klinkhammer, D., J. R  ther and M. Schemmann (2024), “Exploring the Association Between Adult Education, Personality Traits, and Civic Participation: An Analysis of National Education Panel Study Data”, *Adult Education Quarterly*, Vol. 74/4, pp. 283-301, <https://doi.org/10.1177/07417136241255677>. [11]
- Laible, M., S. Anger and M. Baumann (2020), “Personality Traits and Further Training”, *Frontiers in Psychology*, Vol. 11, <https://doi.org/10.3389/fpsyg.2020.510537>. [12]
- Lundberg, S. (2013), “The College Type: Personality and Educational Inequality”, *Journal of Labor Economics*, Vol. 31/3, pp. 421-441, <https://doi.org/10.1086/671056>. [3]
- OECD (2025), *Trends in Adult Learning: New Data from the 2023 Survey of Adult Skills*, Getting Skills Right, OECD Publishing, Paris, <https://doi.org/10.1787/ec0624a6-en>. [10]
- OECD (2024), *Do Adults Have the Skills They Need to Thrive in a Changing World?: Survey of Adult Skills 2023*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/b263dc5d-en>. [15]

- OECD (2024), *Social and Emotional Skills for Better Lives: Findings from the OECD Survey on Social and Emotional Skills 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/35ca7b7c-en>. [1]
- OECD (2024), *Survey of Adult Skills – Reader’s Companion: 2023*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/3639d1e2-en>. [16]
- OECD (2024), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025). [2]
- Rammstedt, B., C. Lechner and D. Danner (2024), “Beyond literacy: The incremental value of non-cognitive skills”, *OECD Education Working Papers*, No. 311, OECD Publishing, Paris, <https://doi.org/10.1787/7d4fe121-en>. [4]
- Rammstedt, B. et al. (2025), *Revisiting the Links between Personality and Cognitive Ability: A Generalization Study in 26 Countries*, Elsevier BV, <https://doi.org/10.2139/ssrn.5239330>. [14]
- Sörman, D. et al. (2024), “The influence of personality traits on engagement in lifelong learning”, *International Journal of Lifelong Education*, Vol. 43/2-3, pp. 259-276, <https://doi.org/10.1080/02601370.2024.2343013>. [13]
- Thørrisen, M. and T. Sadeghi (2025), “Personality and education: associations between personality dimensions, academic field of study, and performance in upper secondary school and higher education”, *Cogent Psychology*, Vol. 12/1, <https://doi.org/10.1080/23311908.2025.2460853>. [9]
- Van Eijck, K. and P. De Graaf (2004), “The Big Five at school: The impact of personality on educational attainment.”, *Netherlands’ Journal of Social Sciences*, Vol. 40/1, pp. 24–40. [5]

3

How are social and emotional skills rewarded in work and life?

This chapter explores the links between social and emotional skills and key employment and non-economic outcomes. Using data from the 2023 Survey of Adult Skills, it compares the relative contributions of these skills to those of the cognitive abilities assessed in the survey. The chapter examines how social and emotional skills are linked to labour market participation, wages and occupational choices, including the sector (self-employment, public or private) and occupation in which adults are employed. In addition, it examines the associations of these skills with key outcomes relevant for individual and societal well-being: self-reported health, life satisfaction, volunteering and political efficacy, which is the belief in one's ability to influence political affairs. The results provide insights into the economic returns of social and emotional skills across countries as well as their broader benefits for society.

In Brief

Findings of the 2023 Survey of Adult Skills show that social and emotional skills – agreeableness, conscientiousness, emotional stability, extraversion and openness to experience – play a role in shaping adults’ success in the labour market and beyond. While cognitive skills such as literacy remain key determinants of labour market outcomes, social and emotional skills independently contribute to employment, wages, job satisfaction and occupational choices. In particular, **extraversion** and **emotional stability** show positive associations with **employment status** and **job satisfaction**, comparable in magnitude to those of literacy skills. Their associations with **wages** are weaker, but significant. These skills seem to matter across all countries, while the role of the other social and emotional skill domains in employment outcomes is more context-dependent.

Beyond their relevance for employment, social and emotional skills also play a role in shaping broader aspects of individual and societal well-being. Higher **emotional stability** and **extraversion** are consistently related to higher **life satisfaction** and better **health**, while **openness** is positively linked to **volunteering** and **political efficacy** – the belief in one’s ability to influence political affairs. These findings highlight the broader value of social and emotional skills for individuals and society.

Key findings include:

- Adults with higher **emotional stability** and **extraversion** are more likely to be **employed** than unemployed or inactive. **Conscientiousness** is also positively associated with employment in about half of the countries. These associations tend to be stronger among **adults with low literacy skills**. In contrast, **agreeableness** and **openness to experience** play a more limited and context-dependent role for employment.
- **Emotional stability**, **extraversion**, **conscientiousness** and **openness to experience** are positively associated with **wages** in many countries, while **agreeableness** shows a negative association in nine countries. Taken together, the five skill domains make a smaller **contribution to the variation of wages** (1.4%), compared to that of literacy skills (4.1%).
- **Extraverted** individuals are generally more likely to be **self-employed**. **Openness to experience** is also positively linked to self-employment in many countries. In contrast, social and emotional skills appear to play a more limited role in determining whether individuals work in the **private or public sectors**.
- **Emotional stability** and **extraversion** are positively related to the likelihood of being satisfied with one’s job. **Agreeableness**, **conscientiousness** and **openness to experience** are relevant for job satisfaction only in some countries.
- **Emotional stability** has strong and consistent positive associations with **life satisfaction** and **self-reported health**. **Extraversion**, **agreeableness** and **conscientiousness** are also positively linked to these outcomes in most countries. In contrast, **openness to experience** shows variable associations, limited to a few countries.
- **Extraversion** and **openness to experience** have consistent positive associations with **volunteering**, comparable in strength to those of literacy skills. **Emotional stability** and **agreeableness** are positively linked to volunteering in several countries, while **conscientiousness** shows negative links in some countries.
- **Openness to experience**, **agreeableness** and **emotional stability** are positively associated with adults’ beliefs about **political efficacy** in many countries.

Introduction

In today's knowledge-driven societies, cognitive skills remain essential foundations for success in work and life. Results from the two cycles of the Survey of Adult Skills indicate that literacy, numeracy and problem-solving skills are important determinants of adults' employability, wages, life satisfaction, health and civic engagement (OECD, 2019^[1]; 2024^[2]). While cognitive skills have traditionally received more attention in policy and research, there is growing recognition that social and emotional skills are also critical in shaping key life outcomes (Edin et al., 2022^[3]; Izadi and Tuhkuri, 2024^[4]). As work becomes more dynamic and service-oriented, the abilities to navigate social environments and collaborate effectively emerge as key assets for workers across sectors and occupations. Beyond the workplace, skills related to emotional stability, empathy and open-mindedness play a vital role in supporting individuals' well-being and active participation in society.

The 2023 Survey of Adult Skills assessed five broad domains of social and emotional skills – agreeableness, conscientiousness, emotional stability, extraversion and openness to experience. This chapter explores the links between these skills and key employment and non-economic outcomes. It analyses how these skills relate to labour market participation, wages and occupational choices, including whether individuals work in the public or private sector, are self-employed, or are concentrated in particular occupations. It also examines whether these relationships differ across socio-demographic groups, such as gender. In addition to objective indicators of labour market success, the chapter investigates the relationship between social and emotional skills and subjective well-being, health, political efficacy and civic engagement, offering a more holistic picture of how these skills matter for individuals and societies.

A vast body of research has examined the impacts of social and emotional skills on employment and well-being (Cabus, Napierala and Carretero, 2021^[5]; Rammstedt et al., 2025^[6]; Strickhouser, Zell and Krizan, 2017^[7]). By leveraging data from the 2023 Survey of Adult Skills, this chapter offers a comparative analysis of how social and emotional skills relate to key outcomes in diverse country settings. Moreover, the chapter examines the relative importance of these skills in comparison to the cognitive skills assessed in the survey. It shows how social and emotional skills relate to diverse outcomes beyond their association with cognitive skills and educational attainment, and how these impacts vary across adults with different levels of proficiency in cognitive skills.

The findings offer insights for policymakers and employers seeking to design interventions and learning opportunities that not only improve labour-market performance but also promote social cohesion and individual well-being. The results, coupled with information from Chapter 4 on how population groups differ in social and emotional skills, can also inform the design of more targeted and inclusive policy interventions and more equitable and fulfilling work environments.

How social and emotional skills matter in the labour market?

Social and emotional skills can influence how individuals access employment, progress in their careers and experience their working lives. For example, extraversion may enhance an individual's ability to secure a job by improving performance in interviews or professional networking. Once employed, skills related to conscientiousness can support effective teamwork, higher productivity and better job performance – factors that are often rewarded with higher wages and promotion opportunities. Social and emotional skills may also affect the types of occupations and sectors individuals enter. Entrepreneurial success, for instance, often depends on creative imagination and openness to experience. Meanwhile, emotional stability can shape the quality of an individual's work experience, influencing their job satisfaction and overall well-being at work.

This section explores the links between social and emotional skills and employment outcomes with data from the 2023 Survey of Adult Skills, comparing the relative contributions of these skills to those of adults' literacy proficiency.

Social and emotional skills and employment status

Findings from the 2023 Survey of Adult Skills indicate that adults' social and emotional skills are related to their employment status (Figure 3.1). In almost all participating countries and economies, individuals with higher emotional stability and extraversion are more likely to be employed than unemployed or inactive after accounting for other factors, including educational attainment and literacy proficiency. Exceptions from this pattern include Denmark, Finland and New Zealand, where extraversion is not significantly linked to employment status, and Israel, Korea and Singapore, where emotional stability does not show a significant association. Conscientiousness is also positively associated with the likelihood of being employed in about half of the participating countries. By contrast, openness to experience shows a positive link only in Croatia, England (United Kingdom), Israel, Latvia and Poland, and a negative link in Finland and Sweden. Agreeableness is negatively associated with having employment in New Zealand, Norway and Poland and not linked to employment status in the remaining countries and economies.

These patterns may reflect differences in how the skill domains are expressed and perceived in the labour market. Extraversion and emotional stability are often highly visible in interpersonal interactions, such as job interviews or networking situations. Extraverted individuals may come across as more energetic, persuasive and socially adept – qualities that can improve interview performance and increase access to job opportunities. Similarly, emotionally stable individuals may project composure and resilience, which can reassure employers of their reliability. Conscientiousness tends to be less directly observable during the hiring process and more visible in actual on-the-job performance. However, this skill domain can play a role in individuals' ability to sustain job search efforts or remain employed once hired.

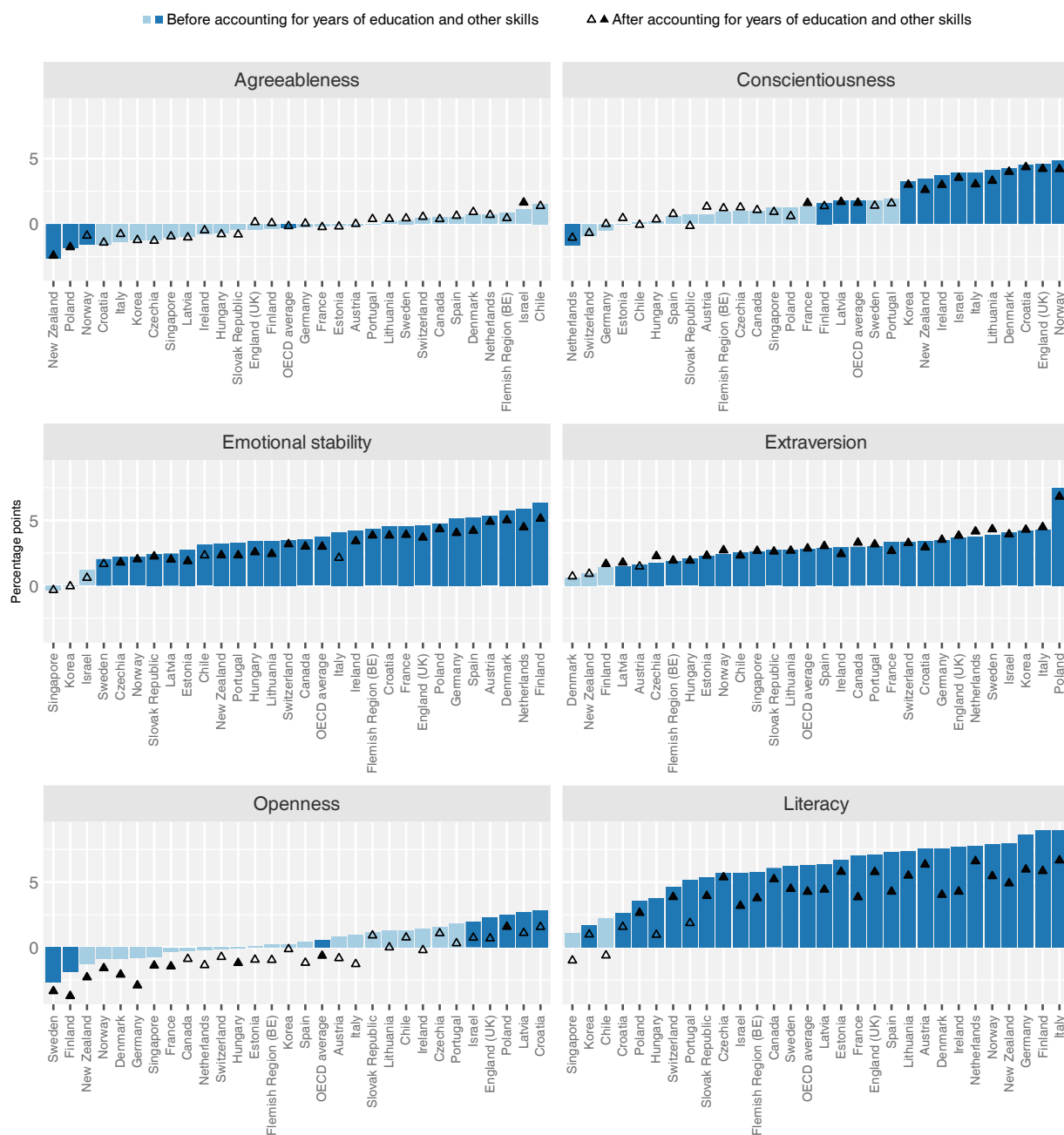
At the same time, the observed relationships may partly reflect the consequences, rather than the causes, of individuals' employment status. For example, being unemployed or out of the labour force can have adverse effects on subjective well-being, daily routines and social interactions, which may in turn lower emotional stability, conscientiousness and extraversion. The analysis cannot disentangle the impact of the Big Five domains on employment status from the potential reverse effects of employment. Previous evidence suggests that both causal mechanisms are likely at play in the relationship between employment status and social and emotional skills (Boyce et al., 2015^[8]; Engelhardt, 2017^[9]; Uysal and Pohlmeier, 2011^[10]).

Furthermore, the results suggest that social and emotional skills have meaningful associations with employment status, comparable in magnitude to those of cognitive skills. On average across OECD countries, a one-standard-deviation increase in literacy proficiency is associated with a 4-percentage-point higher likelihood of being employed, after accounting for other characteristics, including social and emotional skills and educational attainment. In comparison, increases in extraversion or emotional stability are each associated with approximately a 3-percentage-point higher likelihood of employment after controlling for education, literacy proficiency and other characteristics.

The analysis also indicates that the strength of the relationship between social and emotional skills and employment status varies across countries and economies. These cross-country differences may relate to different cultural norms around communication and self-presentation, which shape how social and emotional skills are expressed, perceived and rewarded on the labour market. They may also reflect differences in the signalling role of these skills and the extent to which employers rely on them relative to educational credentials. In countries where educational qualifications are not reliable indicators of individuals' actual skills, employers may place greater weight on observable behaviours that reflect social and emotional competencies. In contexts where educational qualifications are indicative of the skills needed for occupations, employers may pay less attention to such traits.

Figure 3.1. Adults with higher emotional stability and extraversion are more likely to be employed

Adjusted change in the likelihood of being employed related to a one-standard-deviation increase in skills



Note: Adults aged 25-65. The outcome is being employed as opposed to being unemployed or inactive. Estimates for the Big Five domains and literacy are obtained from two separate models, each controlling for gender, age, parental education, immigrant background, whether one lives with a partner and whether one has children. Estimates adjusted for years for education and other skills are obtained from one model, which includes the number of years of education attained, literacy proficiency and Big Five domain scores, in addition to the other controls. Darker colours denote differences that are statistically significant at the 5% level. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024^[2]).

Countries and economies are ranked in ascending order of the association of each skill domain with the likelihood of being employed, before accounting for education and other skills.

Source: OECD (2024^[1]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

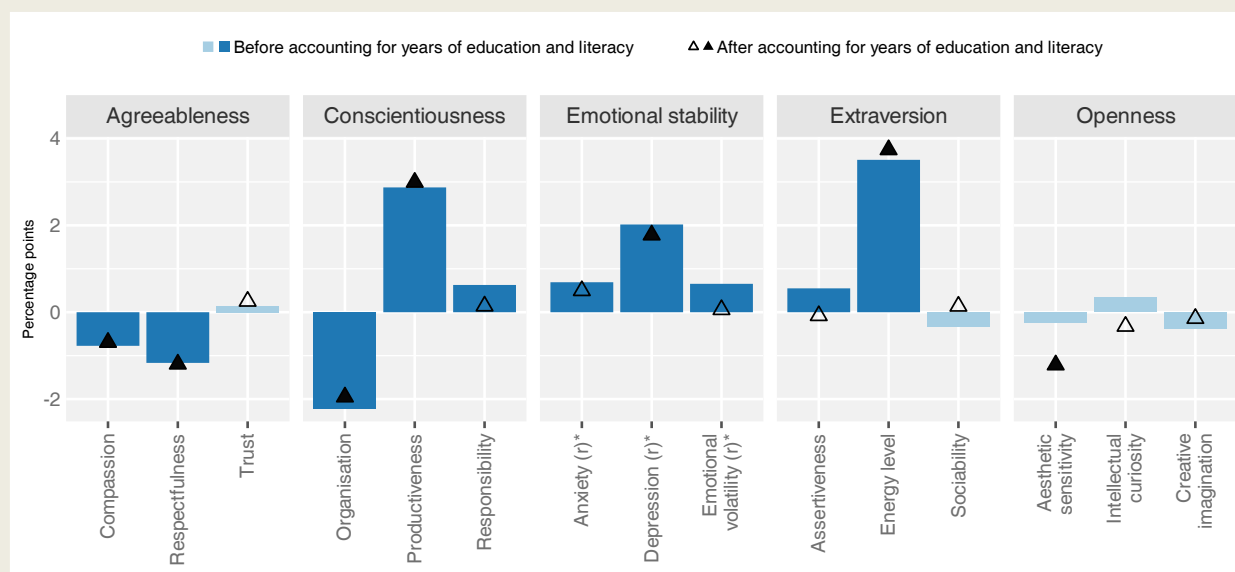
Box 3.1. The relationship between Big Five facets and employment status

Among the narrower Big Five facets, energy level and productiveness show the strongest association with employment status (Figure 3.2). After accounting for educational attainment and literacy proficiency, a one-standard-deviation increase in energy level corresponds to a 4-percentage-point higher likelihood of being employed, and a similar increase in productiveness corresponds to a 3-percentage-point increase, on average, across the OECD countries with available facet-level data. A lower tendency for depression is linked to somewhat higher chances of being employed, while a tendency for being organised is associated with slightly lower chances of being employed. The facets of aesthetic sensitivity, compassion and respectfulness show a weak negative association with the likelihood of employment after controlling for education and literacy.

These results may be due to productive, emotionally stable and energetic individuals being more capable of finding and retaining employment. They may also reflect a pattern of employed individuals being, on average, more energetic, productive and emotionally stable, compared to inactive or unemployed individuals.

Figure 3.2. Energy level and productiveness are positively linked to employment

Adjusted change in the likelihood of being employed related to a one-standard-deviation increase in the Big Five facets



Note: Adults aged 25-65, aggregated results across the OECD countries that used the BFI-2-S measure (see Chapter 1). The outcome is being employed as opposed to being unemployed or inactive. Estimates are obtained by controlling for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children – and in a second step – for years of education attained and literacy proficiency. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[11]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Additional analyses explored separately the impact of the Big Five domains and facets on the likelihood of being active in the labour market as opposed to being out of the labour force, and the probability of being employed versus unemployed. The results follow a similar pattern and are presented in Annex A.

Social and emotional skills matter more for employment among those with low literacy

The relevance of social and emotional skills for employability appears to be somewhat stronger for individuals lacking solid cognitive skills (Figure 3.3). In particular, the positive associations of extraversion, emotional stability and conscientiousness with the likelihood of being employed tend to be more pronounced among adults with lower literacy proficiency (at Level 1 or below). Across OECD countries, on average, each of these associations is about 2-percentage-point higher in this group than among adults with literacy proficiency at Levels 3 or above.

These findings suggest that social and emotional competencies may serve as compensatory assets in the labour market for individuals with limited literacy skills. More extraverted, conscientious and emotionally stable individuals may be more motivated and capable of securing employment even in the absence of strong literacy skills. Moreover, employers recruiting for low-skilled jobs may place particular value on these behaviours as indicators for reliability, adaptability or customer-facing potential. In contrast, for adults with strong literacy skills, social and emotional skills may offer lower added value, as employers can more confidently assess job readiness based on cognitive signals alone.

Agreeableness and openness to experience play a limited role in employment status, both for adults with low and high literacy skills. Exceptions are observed in New Zealand and Sweden, where agreeableness is not associated with the likelihood of being employed among adults with higher literacy proficiency, but has a significantly negative association for those with low literacy skills.

Social and emotional skills and wages

A vast body of literature shows that social and emotional skills are related to wages (Alderotti, Rapallini and Traverso, 2023^[12]; Cabus, Napierala and Carretero, 2021^[5]; Nyhus and Pons, 2005^[13]). Overall, there is robust evidence of positive associations between wages and conscientiousness, emotional stability, extraversion and openness to experience, as well as a negative association between wages and agreeableness.

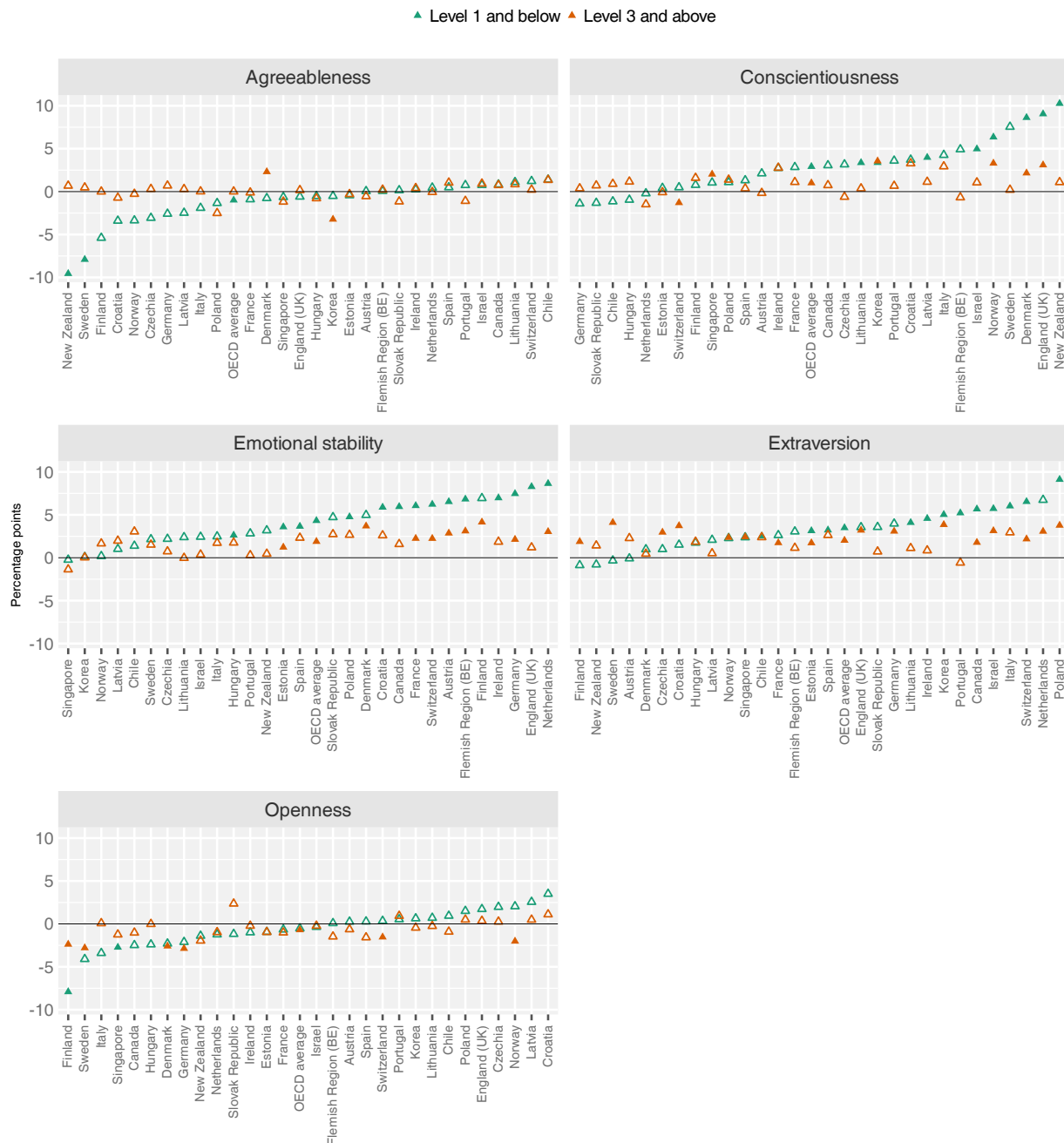
Results from the 2023 Survey of Adult Skills confirm these relationships in many, but not all, participating countries (Figure 3.4).¹ Emotional stability is positively linked to wages in all countries and economies except Austria, Ireland, Israel, Latvia, Lithuania, Singapore and the Slovak Republic. Extraversion shows a positive association in 17 countries and is not related to wages in 11 countries. Conscientiousness has a positive link to wages in 10 countries and a negative link in Poland, while openness to experience is positively related to wages in 12 countries. Agreeableness has a negative association in nine countries.

Accounting for the mediating impacts of educational attainment and literacy proficiency reduces the associations between the Big Five domains and wages in some countries. This is especially the case for the domain of openness to experience. Emotional stability, extraversion and conscientiousness continue to have positive associations with wages after controlling for education and literacy skills in many countries. However, compared to the impact of literacy skills, their net effect on wages is small. While a one-standard-deviation increase in literacy proficiency is linked to a 9% increase in wages, across OECD countries on average, increases in emotional stability, extraversion and conscientiousness are linked to 2.8%, 2.6% and 1.9% increases in higher wages, respectively.

These relationships are well aligned with standard microeconomic theory. Conscientiousness and emotional stability are closely tied to behaviours that enhance productivity – such as reliability, persistence and stress management – which, according to theory, is rewarded through higher wages. Extraversion facilitates communication and teamwork – skills highly demanded in today's service economies. In contrast, high agreeableness may be a disadvantage in wage negotiations and the competition for promotions.

Figure 3.3. Emotional stability, extraversion and conscientiousness are more strongly associated with employment status among adults with low literacy proficiency

Adjusted change in the likelihood of being employed related to a one-standard-deviation increase in skills, by literacy proficiency level

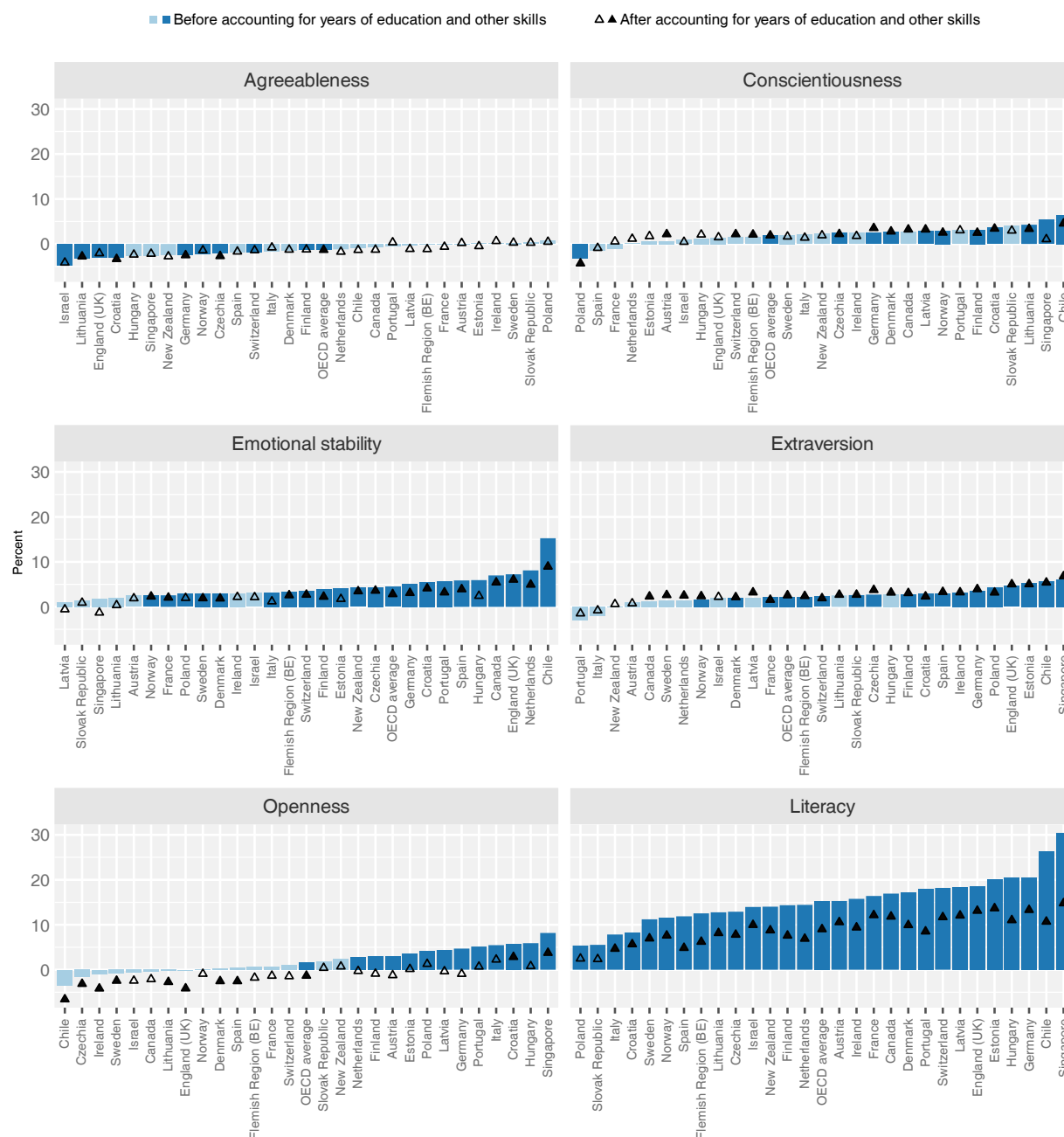


Note: Adults aged 25-65. The outcome is being employed as opposed to being unemployed or inactive. The estimates are obtained from models that control for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children and years of education attained. Darker colours denote differences that are statistically significant at the 5% level. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024_[2]). Countries and economies are ranked in ascending order of the association of each Big Five domain with the likelihood of being employed among adults with proficiency at Level 1 and below.

Source: OECD (2024_[2]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 3.4. The social and emotional skill domains are moderately related to wages

Adjusted change in hourly wages related to a one-standard-deviation increase in skills



Note: Employed adults aged 25-65. Estimates unadjusted for education and skills are obtained from two separate models, each controlling for gender, age, parental education, immigrant background, whether one lives with a partner and whether one has children. Estimates adjusted for years for education and other skills are obtained from one model, which includes the number of years of education attained, literacy proficiency and Big Five domain standardised scores, in addition to the other controls. Wages are gross hourly earnings for employed and self-employed individuals, including bonuses, in PPP-adjusted 2022 USD. Darker colours denote differences that are statistically significant at the 5% level. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024^[2]). Results for Korea are not presented (see Endnote 1).

Countries and economies are ranked in ascending order of the association of each Big Five domain with wages.

Source: OECD (2024^[11]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

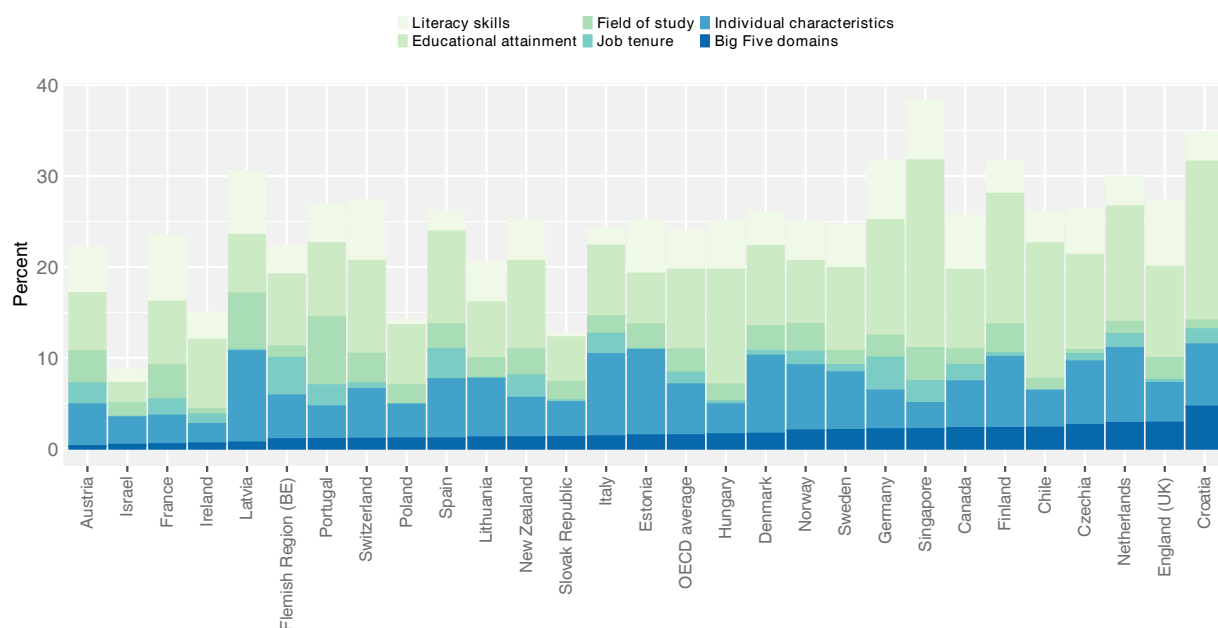
At the same time, the association between social and emotional skills and wages may be mediated by occupational choice. Social and emotional skills play a role in the selection into occupations, and different occupations pay different wages and have different wage trajectories. For example, extraversion may facilitate entry into higher-paying management and leadership roles, while agreeableness may select individuals toward caring activities, which tend to offer below-average wages (Alderotti, Rapallini and Traverso, 2023^[12]).

Figure 3.5 presents the joint contribution of the five social and emotional skill domains to the variation in wages and compares it to the contributions of other factors – literacy proficiency, years of education, job tenure, field of study and individual characteristics (i.e. gender, age, immigrant background, parental education, having children and living with a partner). The analysis decomposes the variance in wages into parts associated with, or “explained” by, differences between adults across each of these factors.

The results reveal that social and emotional skills have a small but statistically significant role in explaining the observed differences in wages between individuals. Across OECD countries, on average, the Big Five skill domains combined account for 1.5% of the variation in wages. This is comparable to the contribution of job tenure (1.3%) and field of study (2.6%), but smaller than the contribution of literacy proficiency (4.3%). Among the observed factors, educational attainment has the largest contribution to the variation in wages, accounting for 8.8%.

Figure 3.5. Social and emotional skills play a smaller role in explaining wage differences than literacy

Variation in wages explained by each factor (social and emotional skills, literacy proficiency, educational attainment, field of study, job tenure, individual characteristics)



Note: Employed adults aged 25-65. Decomposition of the variance of wages into the contributions of the following factors: social and emotional skill domains, literacy skills, educational attainment, field of study, job tenure, and individual characteristics. Wages are gross hourly earnings for employed and self-employed individuals, including bonuses, in PPP-adjusted 2022 USD. Darker colours denote differences that are statistically significant at the 5% level. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024^[2]). Results for Korea are not presented (see Endnote 1).

Countries and economies are ranked in ascending order of the contribution of the Big Five domains to the variation in wages.

Source: OECD (2024^[11]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

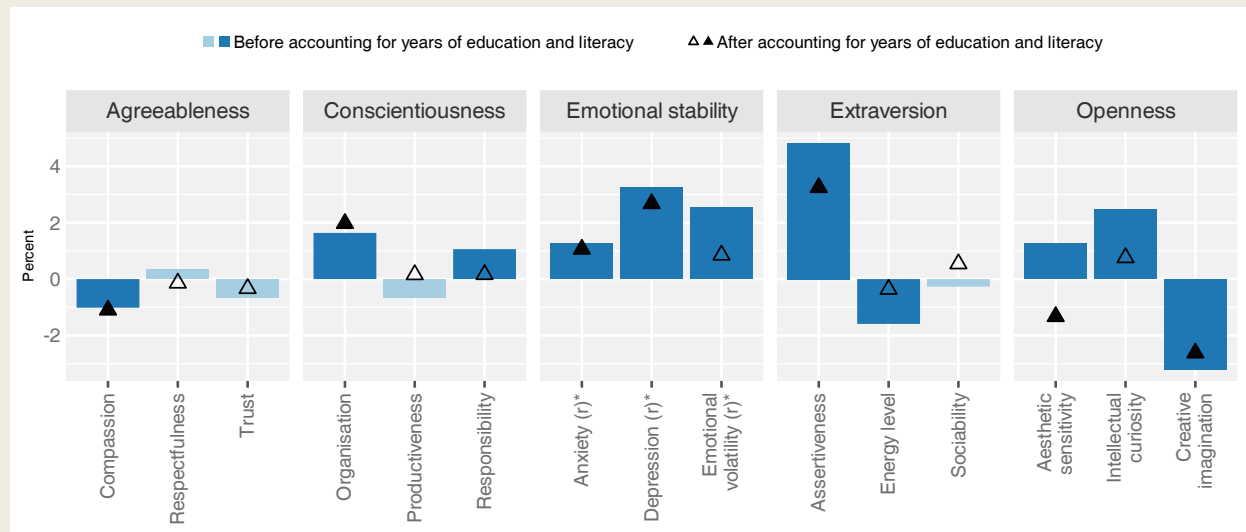
The share in the variation of wages explained by social and emotional skills varies from 0.3% in Austria to 4.6% in Croatia. In some countries, this share is comparable to the contribution share of cognitive skills – notably, in Croatia (4.6% explained by social and emotional skills vs. 3.2% explained by literacy proficiency), the Netherlands (2.8% vs. 3.3%) and Italy (1.3% vs. 1.9%).

Box 3.2. The relationship between Big Five facets and wages

Among the Big Five facets, assertiveness shows the strongest association with wages (Figure 3.6). On average across the OECD countries with available data, a one-standard-deviation increase in this facet is linked to 4.8% higher wages before accounting for education and cognitive skills, and to 3.2% higher wages after considering these factors. Lower tendency for depression and stronger organisational skills are also positively related to wages. In the domain of openness, intellectual curiosity is linked to higher wages, while creative imagination is linked to lower wages. The latter finding may reflect the selection of creative individuals into artistic, cultural or non-profit occupations, which typically offer lower financial rewards.

Figure 3.6. Higher assertiveness and lower tendency for depression are linked to higher wages

Adjusted change in hourly wages related to a one-standard-deviation increase in the Big Five facets



Note: Employed adults aged 25-65; aggregated results across the OECD countries that used the BFI-2-S measure (see Chapter 1). Estimates are obtained by controlling for gender, age, parental education, immigrant background, whether one lives with a partner, whether one has children – and in a second step – for years of education attained and literacy proficiency. Wages are gross hourly earnings for employed and self-employed individuals, including bonuses, in PPP-adjusted 2022 USD. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level. Results for Korea are not presented (see Endnote 1).

Source: OECD (2024^[11]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Social and emotional skills and type of employment

Beyond influencing employability and wages, social and emotional skills may also shape broader career trajectories, including the sector and occupation in which individuals are employed. Chapter 2 showed that social and emotional skills influence field-of-study choices and career preferences. In addition, these skills

can affect risk tolerance, motivation for autonomy and adaptability to organisational cultures – all of which may influence whether individuals become entrepreneurs or enter salaried employment, and whether they work in the public or private sector.

Results from the 2023 Survey of Adult Skills indicate that social and emotional skills are associated with the likelihood of being self-employed (Figure 3.7). Specifically, extraversion is positively related to the probability of self-employment in all countries and economies except England (United Kingdom), New Zealand and Norway. On average across the OECD, a one-standard-deviation increase in this domain is linked to a 2.5-percentage-point higher likelihood of being self-employed. Openness to experience is positively linked to the likelihood of self-employment in 15 countries and economies. The remaining Big Five domains show weaker and less consistent associations with entrepreneurship across the countries.

In contrast, social and emotional skills appear to play a more limited role in determining whether individuals work in the public sector. In 14 countries and economies, openness to experience has a weak positive association with the probability of working in the public sector compared to being in self-employment or the private sector. In Denmark, France, Germany, Hungary, New Zealand and Poland, more agreeable adults are somewhat more likely to work in the public sector.

In addition, the results show that occupations differ markedly in the average levels of social and emotional skills among workers (Figure 3.8). For example, sales, marketing and development managers demonstrate a high level of extraversion across OECD countries, on average, while primary school and early childhood teachers have a high average level of agreeableness (Panel A of Figure 3.8). Administrative and specialised secretaries score high in conscientiousness, on average across the OECD, while manufacturing, mining, construction and distribution managers have high mean emotional stability (Panel B of Figure 3.8).

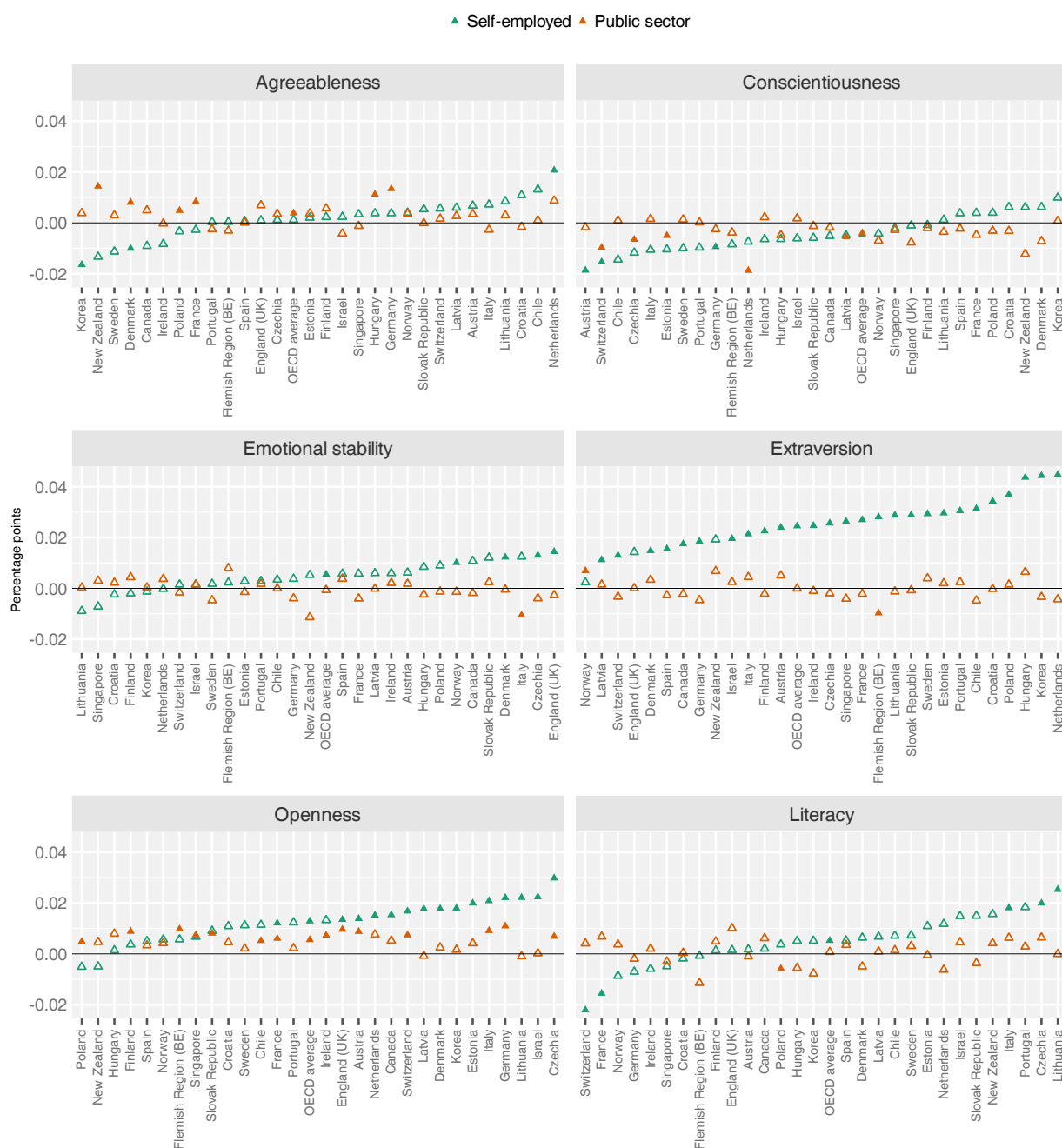
These occupational differences reflect both self-selection and employer selection processes. Individuals tend to choose occupations that align with their personality traits and behavioural tendencies. At the same time, employers actively select candidates whose social and emotional profiles fit job demands, such as sociability in customer-facing roles or emotional stability in high-pressure occupations. Over time, these selection dynamics reinforce and amplify skill differences between occupational groups.

These differences are also shaped by occupational cultures and task requirements, which can strengthen certain social and emotional skills while dampening others. For example, jobs involving teamwork, problem-solving and communication may foster openness and agreeableness, whereas repetitive or highly routine work may provide fewer opportunities for developing such traits. Moreover, occupational hierarchies and working conditions influence how these skills are expressed and rewarded – for instance, leadership roles may both require and cultivate higher levels of assertiveness.

From a policy perspective, understanding these occupational differences is essential for designing effective skills development and employment strategies. Policies aimed at strengthening workers' skills should be sensitive to occupational contexts and the specific skill demands of different jobs. Integrating these dimensions into career guidance, training and lifelong learning initiatives can help individuals both identify and cultivate the skills most valued in their chosen occupations. At the same time, occupational sorting based on social and emotional skills can contribute to subtle forms of exclusion, where individuals are filtered out not for lack of competence but because their interpersonal style does not match occupational norms. Recognising the social and emotional profiles of occupations can help policymakers design targeted initiatives that broaden access to rewarding career paths and promote more inclusive labour markets.

Figure 3.7. More extraverted adults are more likely to be self-employed

Adjusted change in the likelihood for being employed in a particular sector related to a one-standard-deviation increase in skills

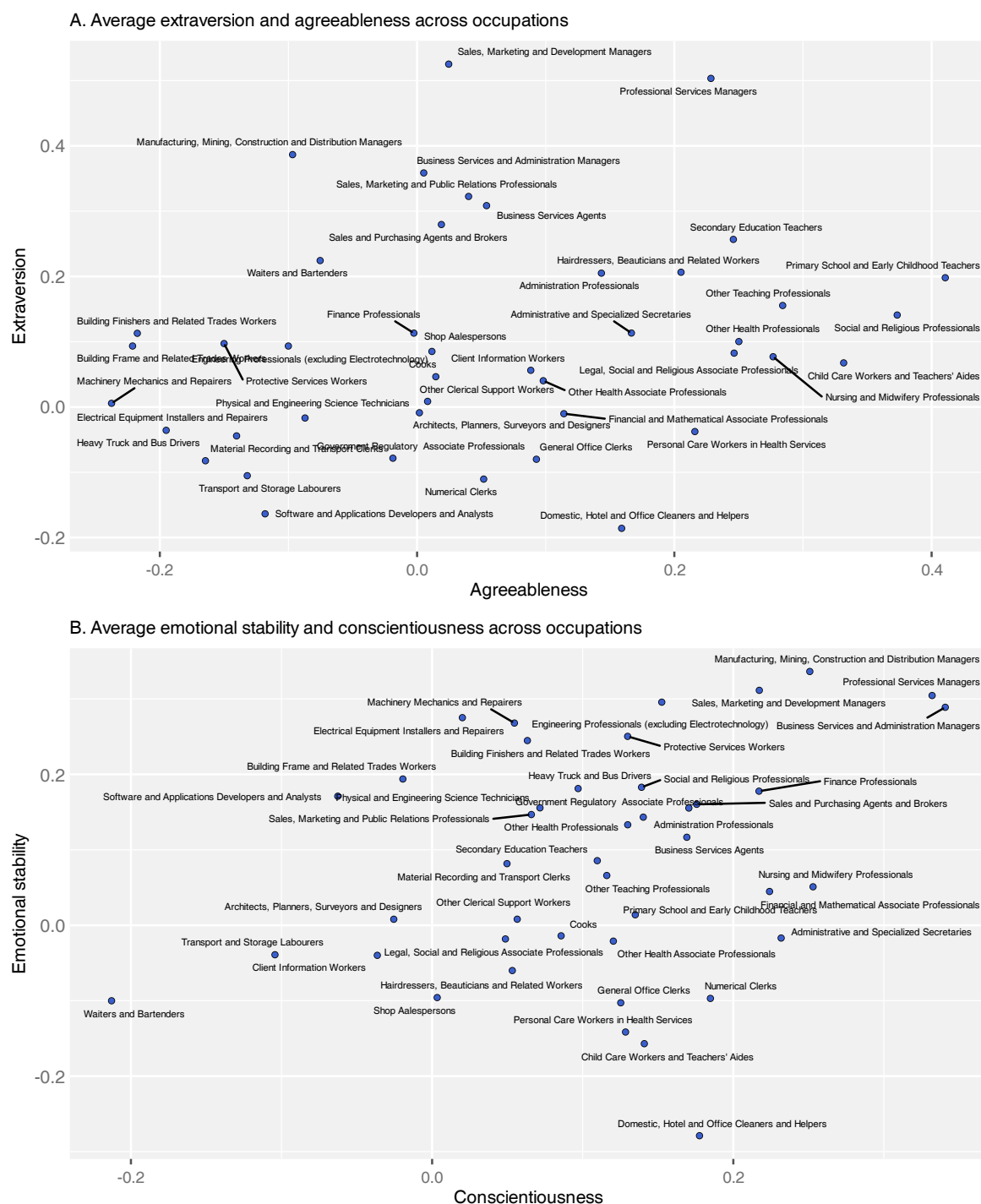


Note: Employed adults aged 25-65. The outcomes are being self-employed versus employed and being employed in the public sector versus self-employed or employed in the private sector. Estimates are obtained by controlling for age, parental education, immigrant background, whether one lives with a partner, whether one has children, years of education attained and literacy proficiency. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024_[2]).

Countries and economies are ranked in ascending order of the association of each Big Five domain with the likelihood of being self-employed. Source: OECD (2024_[11]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 3.8. Occupations have different social and emotional skill profiles

Average standardised scores in Big Five domains across occupations



Note: Employed adults aged 18-65; aggregated results across all participating countries and economies. Only occupations, for which there are at least 1 000 respondents in the database who report being employed in that occupation, are presented. Occupational categories at the 3-digit ISCO level are used.

Source: OECD (2024^[11]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Social and emotional skills and job satisfaction

Job satisfaction is shaped not only by characteristics of the job and the workplace, but also by individuals' social and emotional characteristics. In particular, emotional stability and extraversion are positively related to the likelihood of being satisfied with one's job (Figure 3.9). These relationships hold across nearly all participating countries and economies, with the exception of Denmark and New Zealand, where extraversion is not significantly linked to job satisfaction.

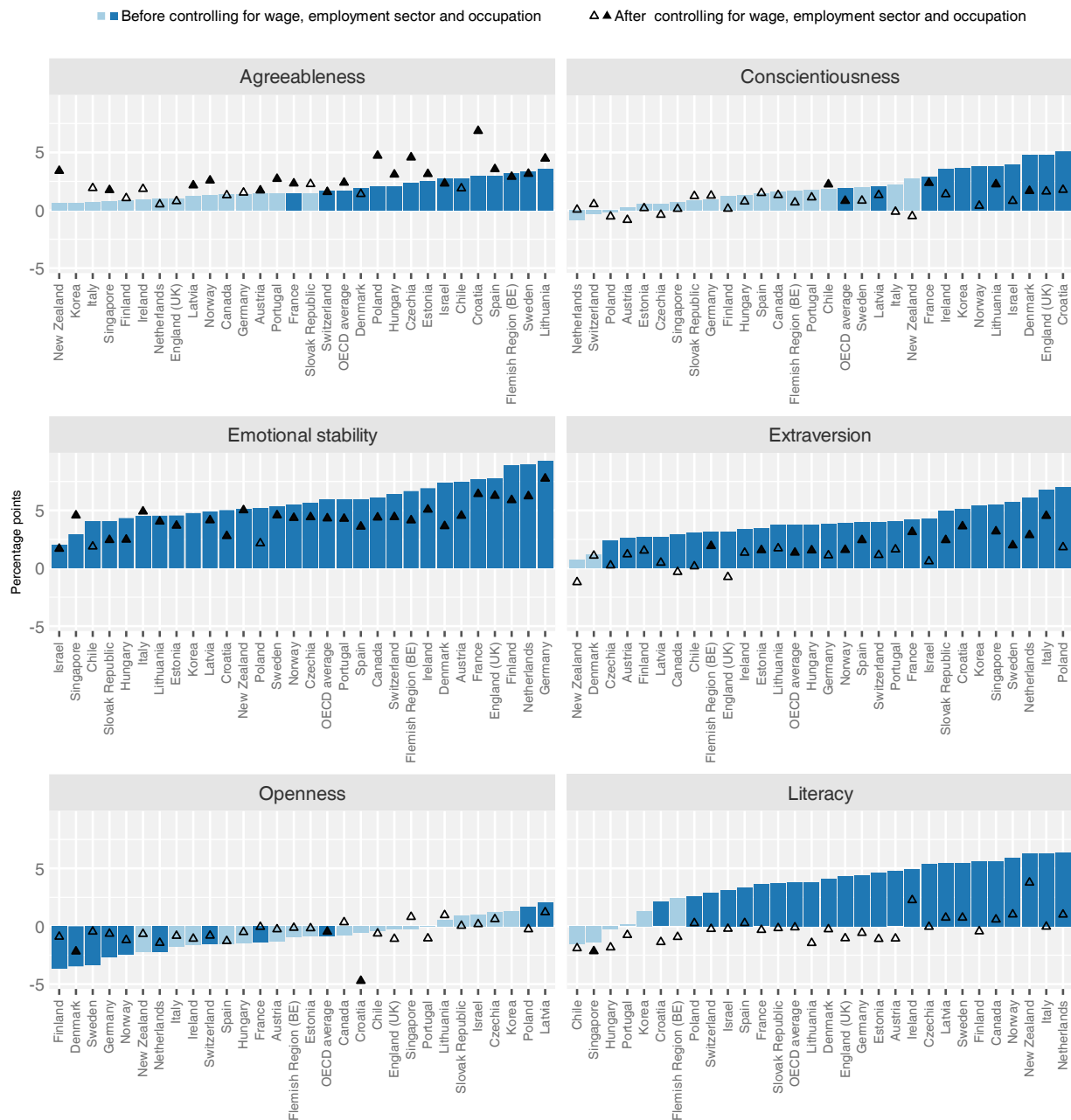
The strength of these associations is comparable to that of literacy proficiency: a one-standard-deviation increase in emotional stability is associated with a 6-percentage-point higher likelihood of job satisfaction, while a similar increase in extraversion corresponds to a 4-percentage-point increase. For comparison, a one-standard-deviation rise in literacy proficiency is linked to a 4-percentage-point higher likelihood of being satisfied at work. After accounting for wages, employment sector and occupation, the relationship between literacy skills and job satisfaction is no longer significant across the participating countries, while the associations with emotional stability and extraversion persist, albeit weaker, in most countries. This suggests that job characteristics fully mediate the link between literacy and satisfaction with one's job, whereas the Big Five domains maintain an independent association.

Agreeableness, conscientiousness and openness to experience are relevant only in some country contexts. Agreeableness is positively related to the probability of high job satisfaction in 14 countries and economies. Conscientiousness shows a positive association in ten countries. Openness has a positive link to job satisfaction in Latvia and Poland, and a negative one in Denmark, Germany, Finland, France, the Netherlands, Norway, Sweden and Switzerland.

Job satisfaction is often understood through the lens of person-environment fit: individuals are more likely to be satisfied when their personality aligns well with the work environment and job demands (Kristof-Brown, Zimmerman and Johnson, 2005^[14]). An alternative explanation suggests that social and emotional skills contribute to job satisfaction by supporting individuals' ability to regulate their emotions and behaviours in the workplace (Bakker and de Vries, 2020^[15]; Kang and Malvaso, 2023^[16]). The consistent positive associations between emotional stability and extraversion and job satisfaction across a wide range of countries and occupations support this perspective. These skills may enhance individuals' capacity to navigate interpersonal situations and manage workplace stress, thereby contributing to higher levels of satisfaction regardless of specific job or country context.

Figure 3.9. Social and emotional skills matter more for job satisfaction than literacy

Adjusted change in the likelihood of reporting a positive outcome related to a one-standard-deviation increase in skills



Note: Employed adults aged 25-65. The definition of job satisfaction is described in Box 3.3. Estimates are obtained by controlling for age, parental education, immigrant background, whether one lives with a partner, whether one has children, years of education attained and literacy proficiency and – in a second step – for wages, employment sector (self-employment, private or public sector) and occupation. An adjustment for wages, employment sector and occupation is not presented for Korea (see Endnote 1). Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024^[2]).

Countries and economies are ranked in ascending order of the association of each Big Five domain with the likelihood of high job satisfaction, before accounting for wages, employment sector and occupation.

Source: OECD (2024^[11]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

How do social and emotional skills relate to personal and societal well-being?

Beyond their relevance for education and employment, social and emotional skills also play a role in shaping broader aspects of individuals' well-being. This section examines how these skills are associated with a range of key non-economic outcomes: self-reported health, life satisfaction, volunteering and political efficacy – the belief in one's ability to influence political decision-making (see Box 3.3).

These outcomes reflect both personal and collective aspects of well-being. Good health and life satisfaction are foundational for individual flourishing, while they also support a productive workforce, reduce demands on public services, and enhance collective resilience. Civic engagement and political efficacy are essential for inclusive and well-functioning societies. Understanding how social and emotional skills relate to these domains provides insights into the broader value of these skills for individuals and societies.

Box 3.3. Measuring job satisfaction and social outcomes in the 2023 Survey of Adult Skills

The 2023 Survey of Adult Skills collects information on adults' job satisfaction, life satisfaction, self-reported health, participation in voluntary activities and beliefs about political efficacy. This chapter investigates how social and emotional skills, as measured by the Big Five framework, are linked to the likelihood of reporting a positive outcome across each of these domains. A positive outcome is defined as follows:

- **Job satisfaction** is based on the question “All things considered, how satisfied are you with your current work?”. Responses vary from 1 (extremely satisfied) to 5 (extremely dissatisfied), with responses of 1 and 2 being defined as high job satisfaction in this report. Some 65% of respondents report high job satisfaction across OECD countries on average.
- **Life satisfaction** is based on a general question about satisfaction with one's life as a whole. Responses are on a scale from 0 (extremely dissatisfied) to 10 (extremely satisfied). High life satisfaction is defined as 7 or higher for this report, with 75% meeting this criterion on average across participating OECD countries and economies.
- **Self-reported health** refers to respondents' ratings of their health on a five-point Likert scale (excellent, very good, good, fair or poor). Scores of “very good” or “excellent” are categorised as a “positive” health outcome and account for 41% on average.
- **Voluntary work** refers to participation in voluntary activities, including unpaid work for a charity, political party, trade union or other non-profit organisation. Answer options are recorded on a five-point scale reflecting increasing frequency (never, less than once a month, less than once a week but at least once a month, at least once a week but not every day, or every day). For this report, any volunteering activity in the past year is categorised as a positive outcome, accounting for 32% on average.
- **Political efficacy** is based on a question about the extent to which adults feel that people “like them” have a say in what the government does. Responses range from 0 to 10. Responses of 7 or higher are categorised as “positive” and 19% of adults, on average, meet this criterion.

Life satisfaction and self-reported health

Results from the 2023 Survey of Adult Skills indicate that the Big Five skill domains are associated with individuals' overall life satisfaction – in many cases more strongly than cognitive skills (Figure 3.10). Emotional stability has a strong and consistent positive association with life satisfaction, after accounting for factors such as cognitive skills and educational attainment. On average across the OECD, a one-

standard-deviation increase in this domain corresponds to a 9-percentage-point higher likelihood of being satisfied with one's life. Extraversion is also positively linked to life satisfaction in all countries, with an average increase of 3 percentage points for a one-standard-deviation difference. For comparison, literacy proficiency shows a positive association in 19 of the 29 countries, with a one-standard-deviation increase corresponding to an average 3-percentage-point higher probability of being satisfied.

Agreeableness and conscientiousness show positive associations with life satisfaction in most countries – agreeableness in 20 countries and conscientiousness in 16. However, these associations are somewhat weaker in magnitude compared to those of the other domains. Openness to experience appears to play a role in only a few countries, showing a positive association with life satisfaction in Israel, Lithuania and Singapore but a negative association in France, Germany and Sweden.

These findings are consistent with theoretical expectations and supported by previous studies. Psychological theory suggests that overall life satisfaction builds up in a bottom-up manner, through the accumulation of various life events and experiences, but is also determined – in a top-down way – by dispositional tendencies such as social and emotional skills (Diener, 1984^[17]; Erdogan et al., 2012^[18]; Malvaso and Kang, 2022^[19]). In particular, emotional stability has been repeatedly linked to higher levels of life satisfaction in empirical studies (Malvaso and Kang, 2022^[19]; Wimmelmann et al., 2020^[20]). This is also observed in studies using informant reports (e.g. by peers, partners or family members), which help to account for potential self-report biases, such as response styles or mood fluctuations affecting both self-reported Big Five traits and life satisfaction (Möttus et al., 2024^[21]).

Social and emotional skills also play a role in adults' health (Figure 3.11). The pattern of these associations is similar to that observed for life satisfaction. Emotional stability shows the strongest positive relationship with the likelihood of reporting good health, followed by extraversion. Agreeableness and conscientiousness have moderate positive associations across the majority of countries. Openness to experience appears to play a limited role. These relationships are estimated after adjusting for a range of socio-demographic factors, literacy proficiency and educational attainment.

Social and emotional skills appear to be more strongly associated with reported health than literacy skills. On average across OECD countries, a one-standard-deviation increase in emotional stability is associated with a 9-percentage-point higher likelihood of reporting good health. A similar increase in extraversion corresponds to a 5-percentage-point increase. By contrast, a one-standard-deviation difference in literacy proficiency is associated with a 4-percentage-point increase in the probability of reporting good health.

The associations of the Big Five domains with adults' health are broadly consistent across the countries, suggesting that similar mechanisms underlie these relationships across different contexts. Previous findings suggest that these patterns likely reflect how social and emotional skills shape individuals' behaviours, coping strategies and access to social resources. In particular, high emotional stability and high conscientiousness have been linked to a lower tendency for health-impairing behaviours such as substance use. Emotional stability and extraversion have been linked to lower risks of psychopathologies, including negative affect and various mental health disorders. These domains are also positively linked to environmental resources such as stronger social support networks (Atherton et al., 2014^[22]; Hudek-Knežević and Kardum, 2009^[23]; Strickhouser, Zell and Krizan, 2017^[7]).

Figure 3.10. Four of the five social and emotional skill domains are positively linked to life satisfaction

Adjusted change in the likelihood of reporting a positive outcome related to a one-standard-deviation increase in skills

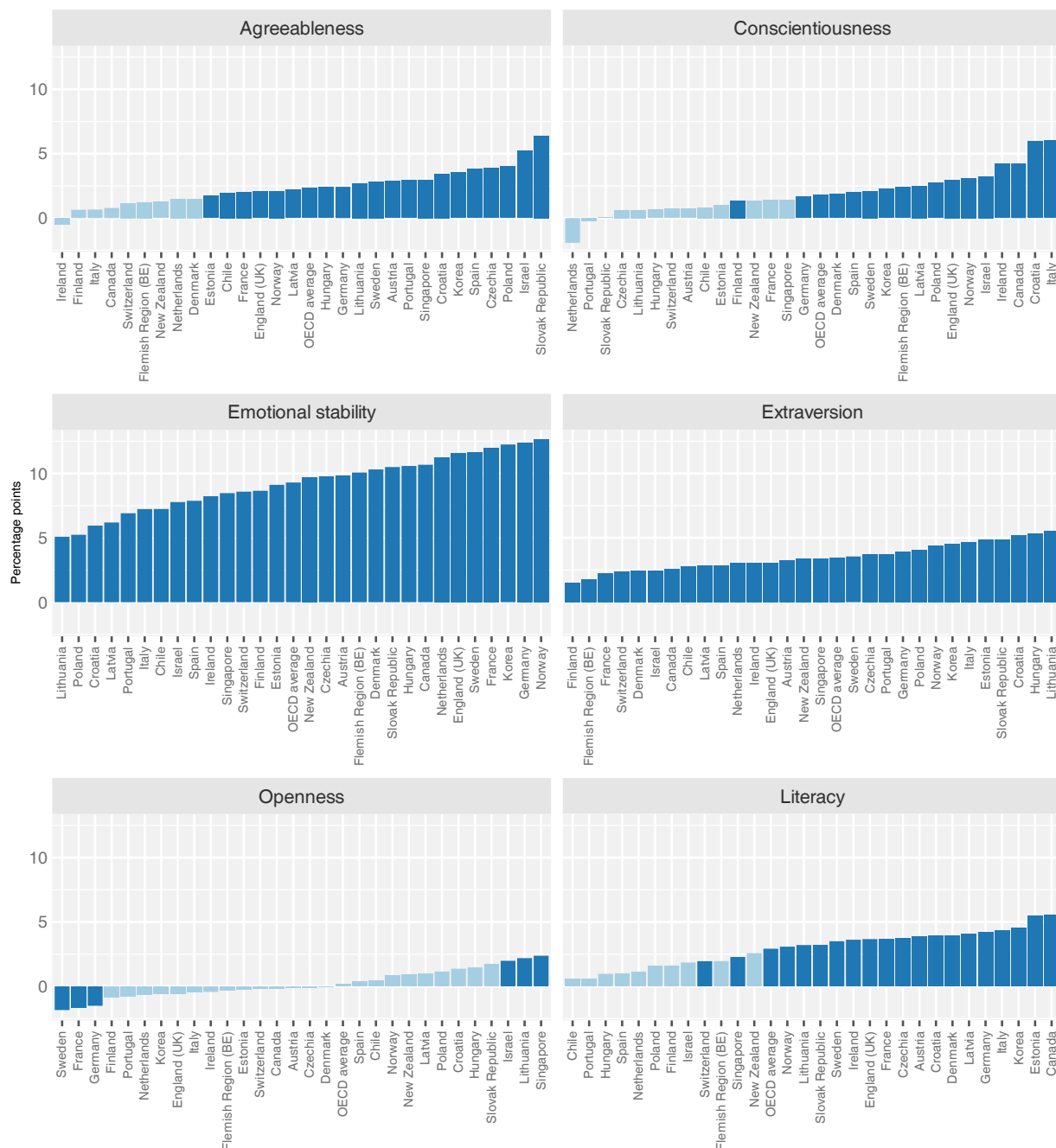
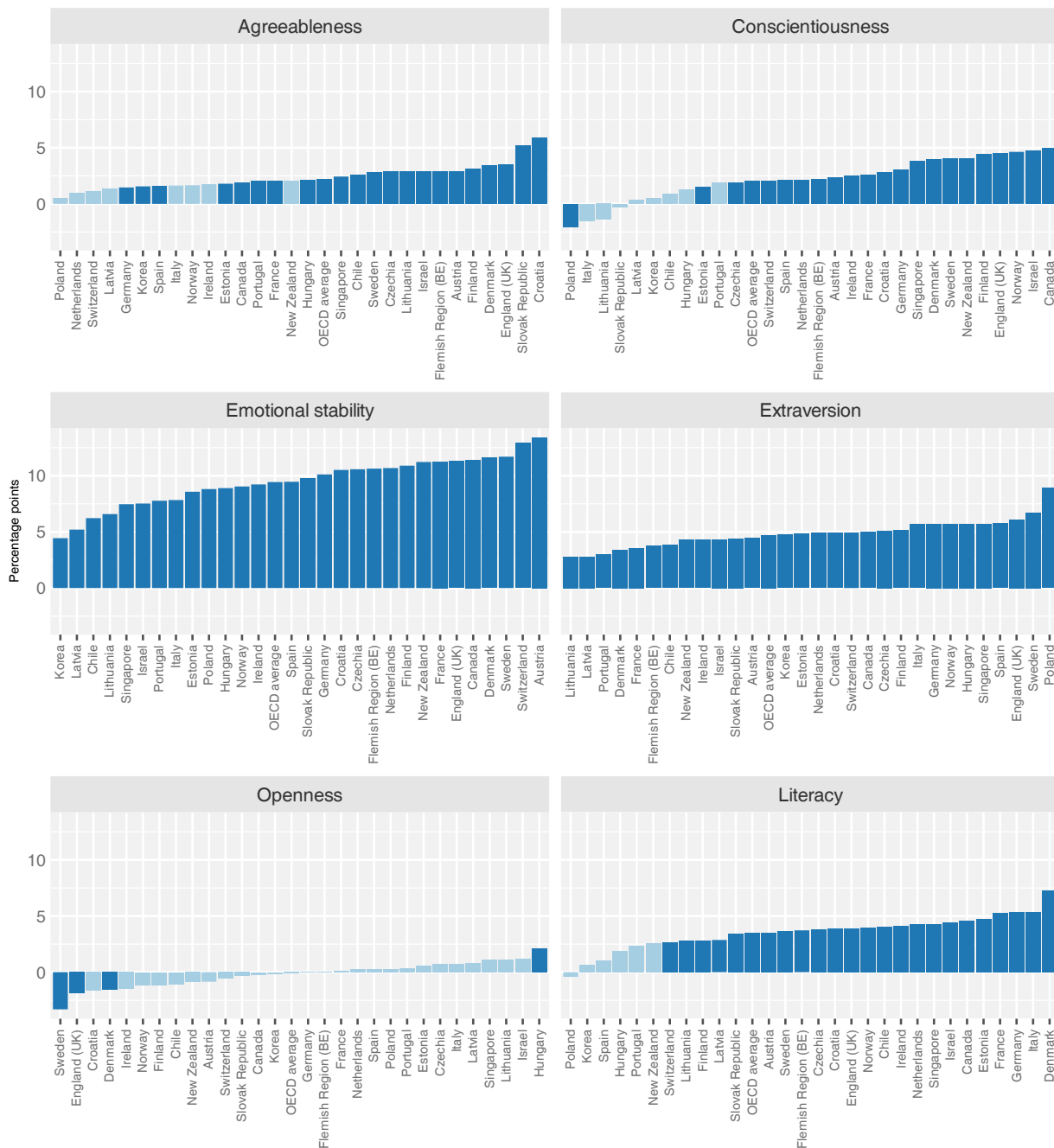


Figure 3.11. Four of the five social and emotional skill domains are positively linked to self-reported health

Adjusted change in the likelihood of reporting a positive outcome related to a one-standard-deviation increase in skills



Note: Adults aged 25-65. The definition of self-reported health is described in Box 3.3. Estimates are obtained by controlling for age, parental education, immigrant background, whether one lives with a partner, whether one has children, years of education attained and literacy proficiency. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024^[2]).

Countries and economies are ranked in ascending order of the association of each Big Five domain with the likelihood of reporting good health.

Source: OECD (2024^[24]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

While the results of the 2023 Survey of Adult Skills are based on cross-sectional data and do not establish causality, they are consistent with findings from longitudinal studies showing that adults' social and emotional skills can have lasting effects on their health (Hampson et al., 2015^[25]; Hengartner et al., 2016^[26]). Thus, social and emotional skills could be an important lever for promoting adult health and well-being, complementing more traditional policy approaches focused on healthcare access and education.

Civil engagement and political efficacy

The 2023 Survey of Adult Skills provides information on adults' beliefs about political efficacy – their confidence in their ability to influence political affairs – as well as their engagement in volunteering activities, including unpaid work for a charity, political party, trade union or other non-profit organisation (see Box 3.3). In most countries, statistically significant associations are observed between adults' social and emotional skills and their participation in voluntary activities (Figure 3.12), whereas these skills appear to play a more limited role in shaping beliefs about political efficacy (Figure 3.13).

In most countries and economies, higher levels of extraversion and openness to experience are associated with a higher probability of volunteering, net of their associations with other factors, such as cognitive skills and educational attainment (Figure 3.12). These relationships are similar in magnitude to those of literacy proficiency. On average across the OECD, a one-standard-deviation increase in extraversion is linked to a 4-percentage-point higher probability for volunteering, while a similar change in openness corresponds to an increase of 3 percentage points. Meanwhile, a one-standard-deviation increase in literacy is linked to a 3-percentage-point higher likelihood for volunteering, on average across OECD countries.

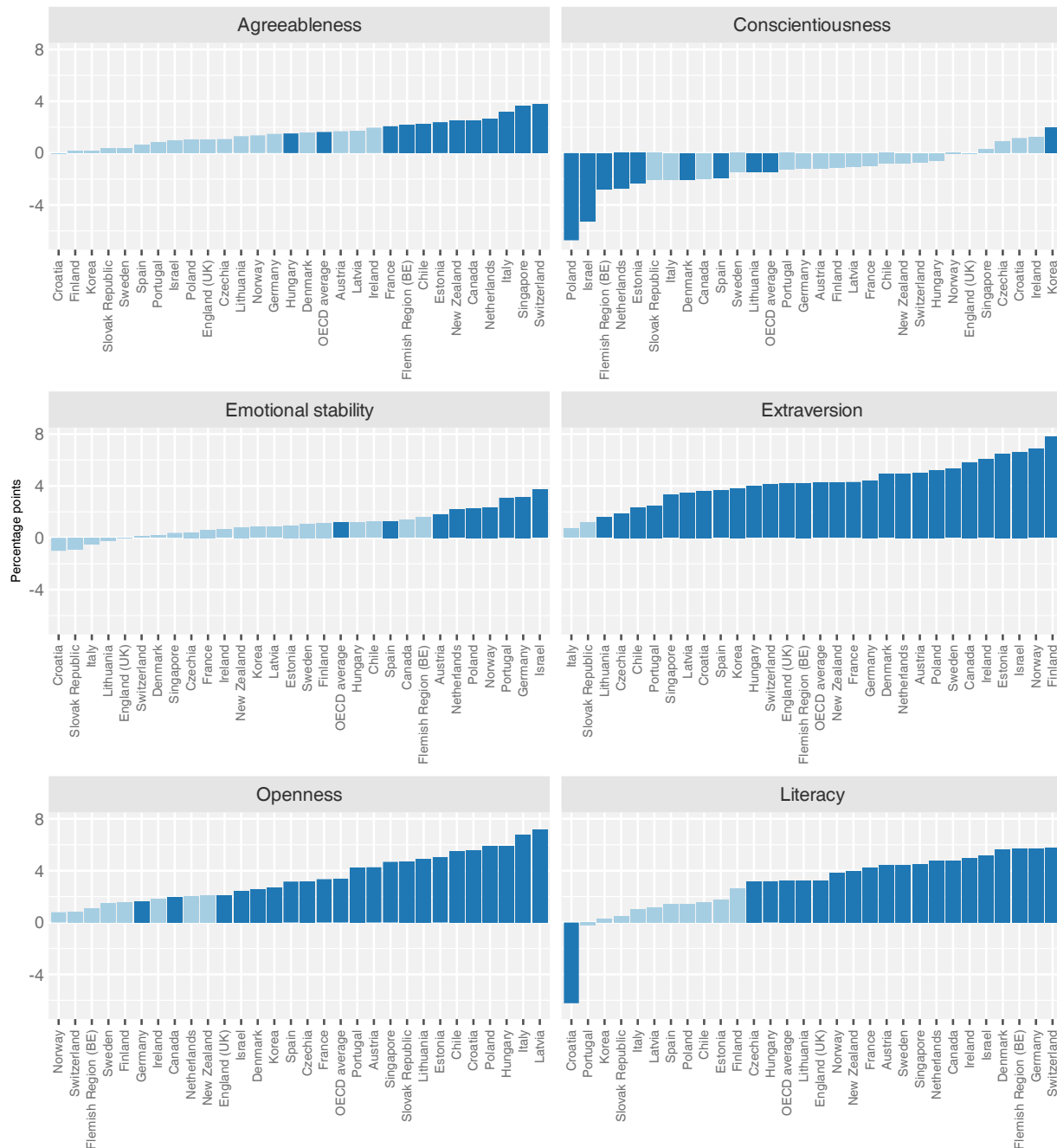
Agreeableness and emotional stability play a role in only some countries. Higher emotional stability is linked to somewhat higher chances of volunteering in Austria, Germany, Israel, the Netherlands, Norway, Poland, Portugal and Spain. Agreeableness has a weak to moderate positive association in eleven countries. In contrast, conscientiousness is negatively associated with volunteering in eight countries but has a positive association in Korea.

Voluntary activities typically take place in social settings, are oriented toward political, social or cultural causes, and require a degree of personal initiative and intrinsic motivation. Extraverted individuals tend to be more sociable, energetic and drawn to group activities, which may explain their higher likelihood to volunteer. Similarly, openness to experience is associated with curiosity, broad interests, and a willingness to explore new ideas and environments, all of which may encourage participation in volunteering activities. Agreeable individuals may be more likely to volunteer as an act of benevolence and care for others, while those with high emotional stability may be better equipped to master potential challenges in voluntary work, such as public speaking or dealing with conflict (Ackermann, 2019^[27]). In contrast, conscientious individuals are typically more efficient and pragmatic, which may lead them to prioritise work and family responsibilities over voluntary activities with no immediate rewards.

Country differences in these associations may relate to the availability of opportunities for volunteering, the strength of civil society, or prevailing cultural norms that value civic participation. For example, in countries where volunteering is less institutionalised, less visible or less socially expected, individuals may have fewer pathways or incentives to participate, independent of their social and emotional skills.

Figure 3.12. Extraversion and openness to experience are positively linked to volunteering

Adjusted change in the likelihood of reporting a positive outcome related to a one-standard-deviation increase in skills



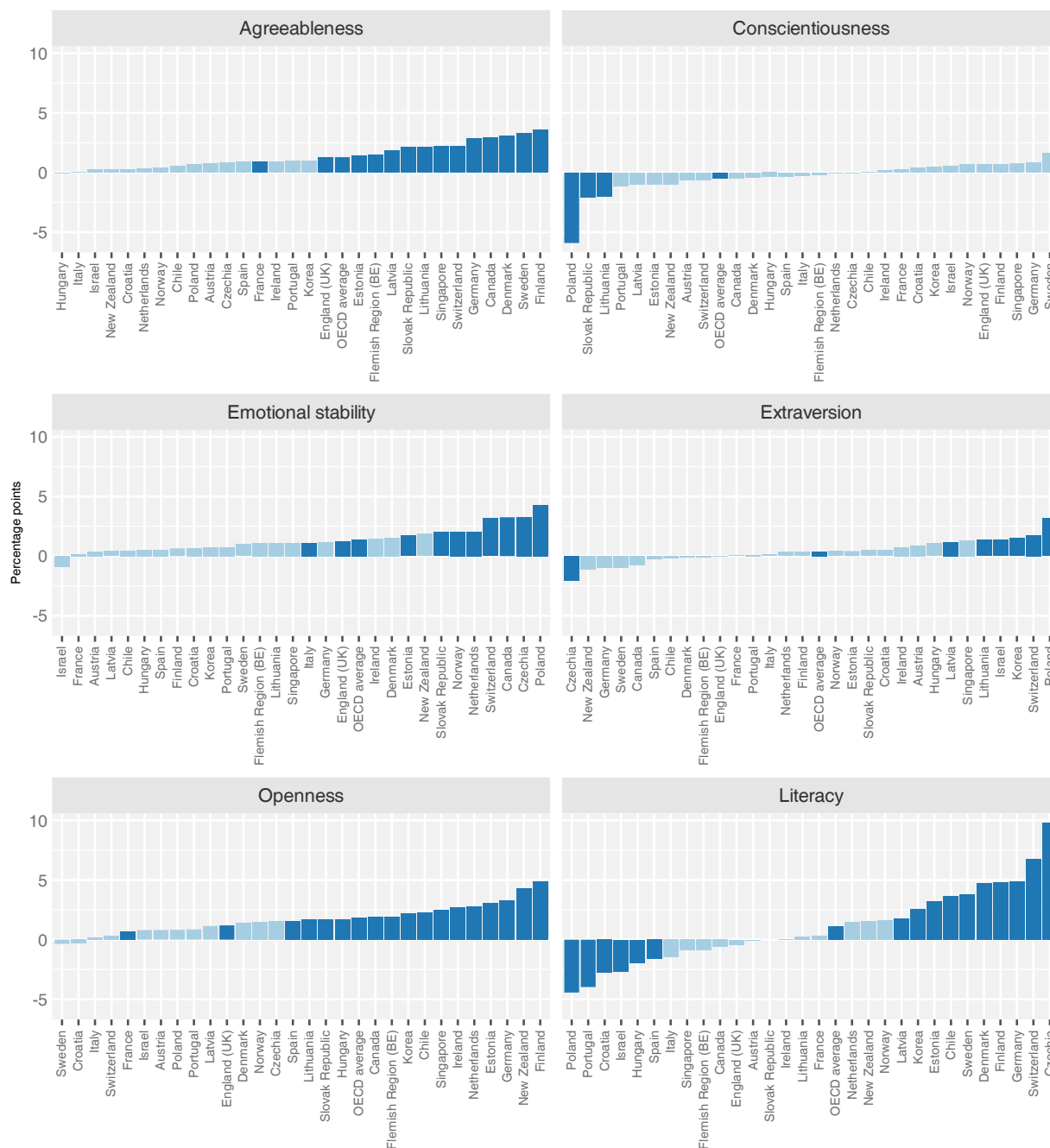
Note: Adults aged 25-65. The definition of volunteering is described in Box 3.3. Estimates are obtained by controlling for age, parental education, immigrant background, whether one lives with a partner, whether one has children, years of education attained and literacy proficiency. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024_[2]).

Countries and economies are ranked in ascending order of the association of each Big Five domain with the likelihood to volunteer.

Source: OECD (2024_[24]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 3.13. Openness to experience is positively related to political efficacy

Adjusted change in the likelihood of reporting a positive outcome related to a one-standard-deviation increase in skills



Note: Adults aged 25-65. The definition of political efficacy is described in Box 3.3. Estimates are obtained by controlling for age, parental education, immigrant background, whether one lives with a partner, whether one has children, years of education attained and literacy proficiency. Caution is required in interpreting results for Poland. See the Note for Poland in the Reader's Guide in OECD (2024_[2]).

Countries and economies are ranked in ascending order of the association of each Big Five domain with the likelihood of political efficacy.

Source: OECD (2024_[24]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 3.13 indicates that the associations between adults' social and emotional skills and their beliefs about political efficacy are more limited and context-dependent. In most countries and economies, adults who are more open to new experiences are somewhat more likely to believe they can influence political affairs, other factors being held constant. Such adults tend to be more curious and interested in abstract ideas – qualities that may reinforce engagement with political topics, greater awareness of democratic processes and the belief that one's voice matters in political life. In half of the countries and economies, higher agreeableness is also linked to political efficacy. This skill domain, characterised by empathy and cooperation, may enhance individuals' connection to their communities and sense of social responsibility. About one-third of the countries exhibit a positive association between emotional stability and political efficacy.

In contrast, extraversion plays a role in a few countries: it has a weak positive relationship with political efficacy in Israel, Korea, Latvia, Lithuania, Poland and Switzerland, and a negative association in Czechia. Conscientiousness is negatively linked to political efficacy in Lithuania, Poland and the Slovak Republic.

For comparison, literacy shows very different associations with political efficacy across countries. Ten countries exhibit moderate to strong positive relationships between adults' literacy proficiency and beliefs about political efficacy, while six countries have negative associations.

Table 3.1. Chapter 3 Figures

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Figure 3.13	Openness to experience is positively related to political efficacy

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References

- Ackermann, K. (2019), "Predisposed to Volunteer? Personality Traits and Different Forms of Volunteering", *Nonprofit and Voluntary Sector Quarterly*, Vol. 48/6, pp. 1119-1142, <https://doi.org/10.1177/0899764019848484>. [27]
- Alderotti, G., C. Rapallini and S. Traverso (2023), "The Big Five personality traits and earnings: A meta-analysis", *Journal of Economic Psychology*, Vol. 94, p. 102570, <https://doi.org/10.1016/j.joep.2022.102570>. [12]

- Atherton, O. et al. (2014), “Personality correlates of risky health outcomes: Findings from a large Internet study”, *Journal of Research in Personality*, Vol. 50, pp. 56-60, <https://doi.org/10.1016/j.jrp.2014.03.002>. [22]
- Bakker, A. and J. de Vries (2020), “Job Demands–Resources theory and self-regulation: new explanations and remedies for job burnout”, *Anxiety, Stress, & Coping*, Vol. 34/1, pp. 1-21, <https://doi.org/10.1080/10615806.2020.1797695>. [15]
- Boyce, C. et al. (2015), “Personality change following unemployment.”, *Journal of Applied Psychology*, Vol. 100/4, pp. 991-1011, <https://doi.org/10.1037/a0038647>. [8]
- Cabus, S., J. Napierala and S. Carretero (2021), “The returns to non-cognitive skills: A meta-analysis”, *JRC Working Papers Series on Labour, Education and Technology* No. 2021/06, <https://ideas.repec.org/p/ipt/laedte/202106.html> (accessed on 14 February 2025). [5]
- Diener, E. (1984), “Subjective well-being.”, *Psychological Bulletin*, Vol. 95/3, pp. 542-575, <https://doi.org/10.1037/0033-2909.95.3.542>. [17]
- Edin, P. et al. (2022), “The Rising Return to Noncognitive Skill”, *American Economic Journal: Applied Economics*, Vol. 14/2, pp. 78-100, <https://doi.org/10.1257/app.20190199>. [3]
- Engelhardt, C. (2017), “Unemployment and personality: Are conscientiousness and agreeableness related to employability?”, *Hannover Economic Papers (HEP)* No. 621, <https://www.econstor.eu/bitstream/10419/200633/1/dp-621.pdf> (accessed on 28 July 2025). [9]
- Erdogan, B. et al. (2012), “Whistle While You Work”, *Journal of Management*, Vol. 38/4, pp. 1038-1083, <https://doi.org/10.1177/0149206311429379>. [18]
- Hampson, S. et al. (2015), “A Big Five approach to self-regulation: personality traits and health trajectories in the Hawaii longitudinal study of personality and health”, *Psychology, Health & Medicine*, Vol. 21/2, pp. 152-162, <https://doi.org/10.1080/13548506.2015.1061676>. [25]
- Hengartner, M. et al. (2016), “Big Five personality traits may inform public health policy and preventive medicine: Evidence from a cross-sectional and a prospective longitudinal epidemiologic study in a Swiss community”, *Journal of Psychosomatic Research*, Vol. 84, pp. 44-51, <https://doi.org/10.1016/j.jpsychores.2016.03.012>. [26]
- Hudek-Knežević, J. and I. Kardum (2009), “Five-factor Personality Dimensions and 3 Health-related Personality Constructs as Predictors of Health”, *Croatian Medical Journal*, Vol. 50/4, pp. 394-402, <https://doi.org/10.3325/cmj.2009.50.394>. [23]
- Izadi, R. and J. Tuhkuri (2024), “Evolving returns to personality”, *Rockwool Foundation Berlin (RF Berlin) and Centre for Research & Analysis of Migration (CReAM), Discussion Paper Series* No. 16/24, <https://www.econstor.eu/handle/10419/304414> (accessed on 14 February 2025). [4]
- Kang, W. and A. Malvaso (2023), “Associations between Personality Traits and Areas of Job Satisfaction: Pay, Work Itself, Security, and Hours Worked”, *Behavioral Sciences*, Vol. 13/6, p. 445, <https://doi.org/10.3390/bs13060445>. [16]
- Kristof-Brown, A., R. Zimmerman and E. Johnson (2005), “Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit”, *Personnel Psychology*, Vol. 58/2, pp. 281-342, <https://doi.org/10.1111/j.1744-6570.2005.00672.x>. [14]

- Malvaso, A. and W. Kang (2022), “The relationship between areas of life satisfaction, personality, and overall life satisfaction: An integrated account”, *Frontiers in Psychology*, Vol. 13, <https://doi.org/10.3389/fpsyg.2022.894610>. [19]
- Möttus, R. et al. (2024), “Most people’s life satisfaction matches their personality traits: True correlations in multitrait, multirater, multisample data.”, *Journal of Personality and Social Psychology*, Vol. 126/4, pp. 676-693, <https://doi.org/10.1037/pspp0000501>. [21]
- Nyhus, E. and E. Pons (2005), “The effects of personality on earnings”, *Journal of Economic Psychology*, Vol. 26/3, pp. 363-384, <https://doi.org/10.1016/j.joep.2004.07.001>. [13]
- OECD (2024), *Do Adults Have the Skills They Need to Thrive in a Changing World?: Survey of Adult Skills 2023*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/b263dc5d-en>. [2]
- OECD (2024), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025). [11]
- OECD (2024), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025). [24]
- OECD (2019), *Skills Matter: Additional Results from the Survey of Adult Skills*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/1f029d8f-en>. [1]
- Rammstedt, B. et al. (2025), *Revisiting the Links between Personality and Cognitive Ability: A Generalization Study in 26 Countries*, Elsevier BV, <https://doi.org/10.2139/ssrn.5239330>. [6]
- Strickhouser, J., E. Zell and Z. Krizan (2017), “Does personality predict health and well-being? A metasynthesis.”, *Health Psychology*, Vol. 36/8, pp. 797-810, <https://doi.org/10.1037/hea0000475>. [7]
- Uysal, S. and W. Pohlmeier (2011), “Unemployment duration and personality”, *Journal of Economic Psychology*, Vol. 32/6, pp. 980-992, <https://doi.org/10.1016/j.joep.2011.03.008>. [10]
- Wimmelmann, C. et al. (2020), “Associations of personality traits with quality of life and satisfaction with life in a longitudinal study with up to 29 year follow-up”, *Personality and Individual Differences*, Vol. 156, p. 109725, <https://doi.org/10.1016/j.paid.2019.109725>. [20]

Notes

¹ In the course of the analysis, some inconsistencies have been detected in the wage data from Korea, notably some implausibly high values at the top of the distribution. Pending further investigations on the data, results for Korea have been excluded from the analysis on wages presented in this report.

4

How are social and emotional skills distributed in the adult population?

This chapter examines the distribution of social and emotional skills in the adult population. It explores how these skills vary according to adults' socio-demographic characteristics, like age, gender, parental education, and immigrant background across countries and economies participating in the 2023 Survey of Adult Skills. In addition, the chapter investigates differences in social and emotional skills among adults with varying levels of educational attainment. These differences may contribute to unequal opportunities for success in both work and life. Understanding them is essential to providing appropriate targeted opportunities that foster the development of such skills and to promoting more inclusive learning and working environments that value diversity.

In Brief

Social and emotional skills assessed in the 2023 Survey of Adult Skills – agreeableness, conscientiousness, emotional stability, extraversion and openness to experience – vary across the adult population. Some differences, such as gender differences in agreeableness, are observed consistently across all participating countries and economies, suggesting that similar underlying processes may operate across diverse cultural settings. Other differences, such as those in emotional stability between younger and older adults, vary in both size and direction across countries, indicating that historical context and societal norms also shape the expression of these skills. The largest and most consistent differences are observed between adults with different levels of educational attainment, reflecting both the importance of formal learning environments in shaping social and emotional development and the role of social and emotional skills in accessing and succeeding in higher education.

Key findings include:

- **Younger adults** tend to report higher levels of **extraversion** and **openness**, while **older adults** tend to report higher levels of **conscientiousness** and **agreeableness**. Age-related differences in **emotional stability** vary across countries.
- Reported levels of **agreeableness**, **conscientiousness** and **emotional stability** tend to increase with **age**. **Openness** tends to decline consistently with age across all countries and economies. **Extraversion** follows a bell-shaped trajectory: average levels increase slightly until around age 40 and decline more sharply thereafter.
- **Women** report higher levels of **agreeableness** and **conscientiousness**, but lower **emotional stability** than men in nearly all countries. Gender differences in **openness** and **extraversion** are smaller and more variable.
- **Gender differences in emotional stability** are more pronounced among **younger adults** and tend to **narrow with age** in many countries, suggesting that maturation and accumulated life experiences may contribute to reducing these differences over time.
- Adults with **highly educated parents** tend to score higher in **openness** and **extraversion**, while adults with **lower-educated parents** score higher in **conscientiousness** in the majority of countries. Differences in **agreeableness** and **emotional stability** are small and less consistent across countries.
- **Parental education** is more strongly associated with **openness** and **extraversion** among **older adults** than among younger ones. This suggests that socio-economic background may have had a greater influence on social and emotional development in earlier generations.
- In many countries, **foreign-born adults** report higher levels of **openness**, **agreeableness** or **conscientiousness** than native-born adults. Differences in **emotional stability** and **extraversion** by immigrant background are smaller and less consistent across the countries.
- Adults with **tertiary education** tend to report higher levels of **emotional stability**, **extraversion**, and **openness** than those with below upper secondary education. In many countries, tertiary-educated adults report somewhat higher levels of **agreeableness** and **conscientiousness**.

Introduction

The 2023 Survey of Adult Skills provides a snapshot of the distribution of five key social and emotional skills in the adult population – agreeableness, conscientiousness, emotional stability, extraversion and openness to experience. These skills support individuals in managing everyday challenges, building relationships, and adapting to changing social and economic environments. They play a crucial role in shaping individuals' life outcomes, from education and employment to health and well-being (Rammstedt, Lechner and Danner, 2024^[1]). However, social and emotional skills are not evenly distributed across the population. Their development is shaped by a range of factors over the life course, including family background, major life events, cultural norms, educational experiences, and opportunities for learning and practice in work settings.

Given the economic and social benefits of social and emotional skills, it is crucial to understand how they vary across socio-demographic groups in the adult population. Differences in social and emotional skills may reflect unequal access to opportunities for developing these skills throughout life – whether in the family, in education, in the workplace or in broader society. This may indicate a need for more equitable policies that target the development of social and emotional skills of specific groups. At the same time, variation in these skills may also stem from broader socio-cultural factors, differing social roles, or physiological changes associated with ageing. Acknowledging this diversity is key to designing policies and practices that are more inclusive – adapting teaching methods, workplace design or training approaches to better support different groups.

This chapter presents evidence from the 2023 Survey of Adult Skills on how social and emotional skills are distributed across different socio-demographic groups in the adult population. It examines how these skills vary by age, gender, parental education, immigrant background and educational attainment across countries and economies participating in the survey. In addition, the chapter explores how social and emotional skills differ among adults with varying levels of education. Understanding these differences is essential to providing appropriate targeted opportunities that foster the development of such skills and to promoting more inclusive learning and working environments that value diversity.

Differences in social and emotional skills related to age

Social and emotional skills change with age. This change is driven by biological factors, such as brain development and physiological changes associated with ageing, as well as various environmental factors, including education, work, family life and broader socio-cultural conditions. The interplay between these biological and environmental factors is complex and dynamic, shaping both the levels of social and emotional skills and their developmental trajectories over the life span.

Studies drawing on longitudinal survey data have documented systematic age-related differences in social and emotional skills assessed with the Big Five model. Notably, conscientiousness, agreeableness and emotional stability tend to increase from early adulthood into middle age, while openness to experience increases, on average, in adolescence and declines in old age. Extraversion shows a more complex pattern, with its facet social dominance increasing, and its facet social vitality (i.e. energy level) decreasing, on average, with age (Roberts, Walton and Viechtbauer, 2006^[2]; Specht, Egloff and Schmukle, 2011^[3]). These patterns are broadly consistent across countries and cultural contexts, suggesting that social and emotional development is shaped by common life-course processes, such as changes in roles, responsibilities, and cognitive and emotional functioning.

However, disentangling the exact causes of these observed age differences presents significant methodological challenges. For cross-sectional studies – such as the Survey of Adult Skills, which has so far collected information on social and emotional skills only in its second cycle – an additional challenge

lies in separating so-called aging from cohort effects. This means that when comparing individuals of different ages at a single point in time, observed differences may reflect both true developmental changes associated with ageing and generational differences in upbringing, education systems, economic conditions or cultural norms. For instance, older cohorts may have been exposed to different social expectations regarding emotional regulation or interpersonal behaviour, which could shape their average social and emotional skills profiles in ways unrelated to biological ageing.

Accounting for observable differences between adults of different ages, notably for differences in educational attainment and parental education, can isolate the impact of generational differences to some extent. Although this does not provide a full approximation of the underlying age effect, the age-related differences in the Big Five domains derived from the 2023 Survey of Adult Skills offer a valuable snapshot of how social and emotional skills are distributed across the adult lifespan in different national contexts. The following analyses present both absolute differences in social and emotional skills between age groups and differences after accounting for the impact of other characteristics.

Older adults tend to be more conscientious and agreeable and less extraverted and open to experience than younger adults

Figure 4.1 presents the average standardised differences in Big Five domains between younger (aged 25-34) and older adults (aged 55-65). Since Big Five scores are standardised at the country level, differences are expressed in units of the country's standard deviation (see Chapter 1). For example, a difference of 0.5 indicates that 25-34 year-olds score, on average, half a standard deviation higher than 55-65 year-olds in a Big Five domain within their country. Conversely, a difference of -0.5 means that older adults have an average score that is half a standard deviation higher than that of younger adults.

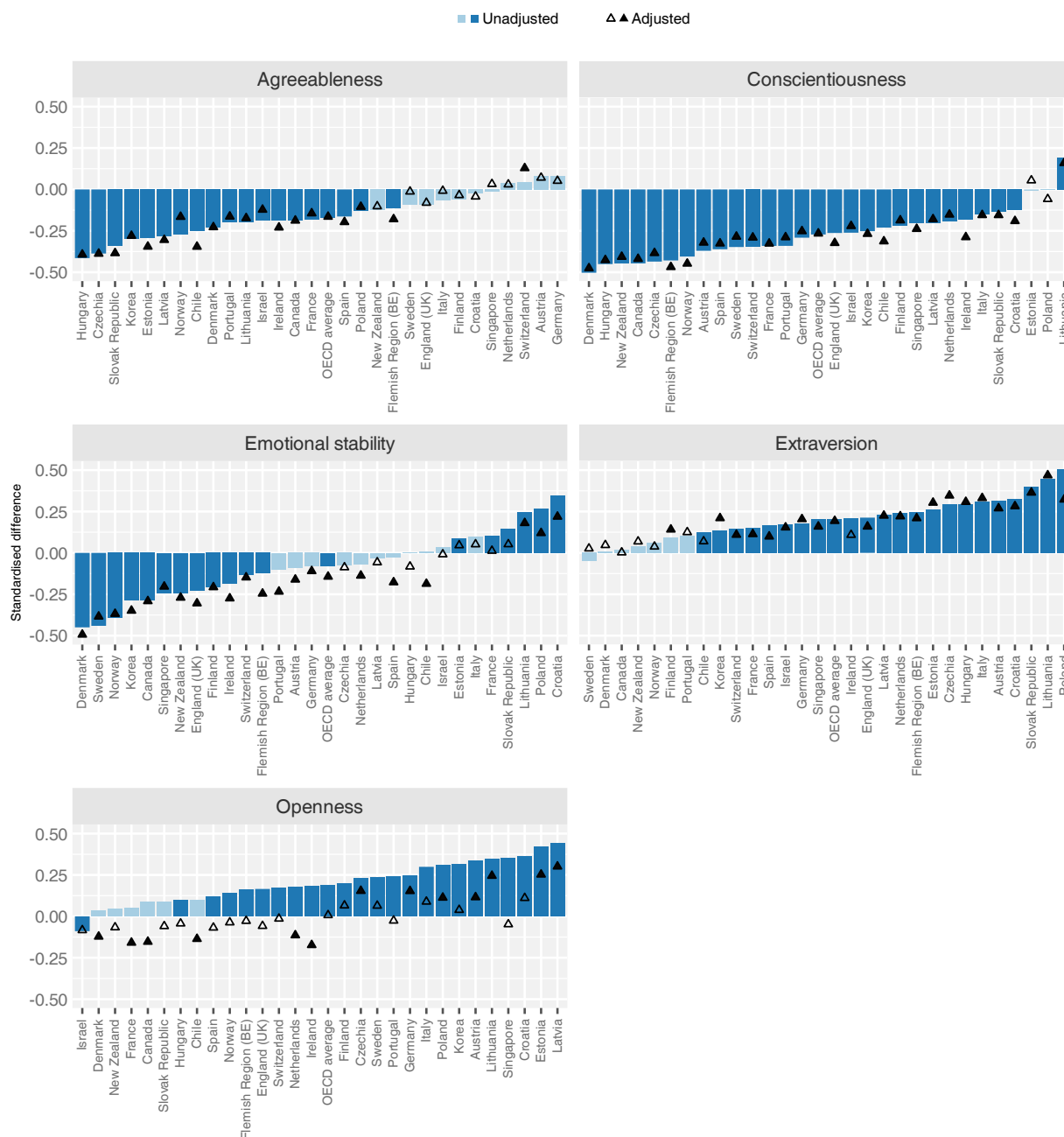
Overall, older adults score higher on the Big Five domains conscientiousness and agreeableness, while younger adults have higher average levels of extraversion and openness to experience. These patterns are broadly consistent across the countries and economies. However, there are several exceptions. Age-related differences in agreeableness are not significant in eleven countries and economies. In Estonia and Poland, younger and older adults do not significantly differ in conscientiousness, while in Lithuania, 25-34 year-olds demonstrate, on average, higher conscientiousness levels than 55-65 year-olds. Younger and older adults do not significantly differ, on average, in extraversion in Canada, Denmark, Finland, New Zealand, Norway, Portugal and Sweden. In openness, no significant age differences are observed in Canada, Chile, Denmark, France, New Zealand and the Slovak Republic.

The comparison of emotional stability between younger and older adults reveals a mixed pattern across countries. In twelve countries and economies, older adults report significantly higher levels of emotional stability, consistent with the idea that individuals become better at regulating their emotions with age. In a few countries, namely Croatia, Estonia, France, Lithuania, Poland and the Slovak Republic, younger adults exhibit higher average reported levels of emotional stability than older adults. In the remaining countries, the differences are not significant. These cross-country differences may reflect a range of influences, including cultural norms around emotional expression, or historical events that shaped the emotional development of particular generations.

The adjusted differences in social and emotional skills – those observed after accounting for factors such as parental education, immigrant background and educational attainment – follow a similar pattern to the unadjusted differences. In other words, the observed differences in socio-demographic characteristics between younger and older adults do not account for the variation of social and emotional skills across these age groups. An exception is observed in the domain on openness to experience. After controlling for other characteristics, the age difference in openness disappears or reverses in many countries. Additional analyses suggest that lower levels of formal education among older adults explain much of the initial difference.

Figure 4.1. Older adults report higher levels of agreeableness and conscientiousness and lower levels of openness and extraversion than younger adults, while age differences in emotional stability vary across countries

Adjusted and unadjusted standardised difference in the Big Five domains between 25-34 and 55-65 year-olds



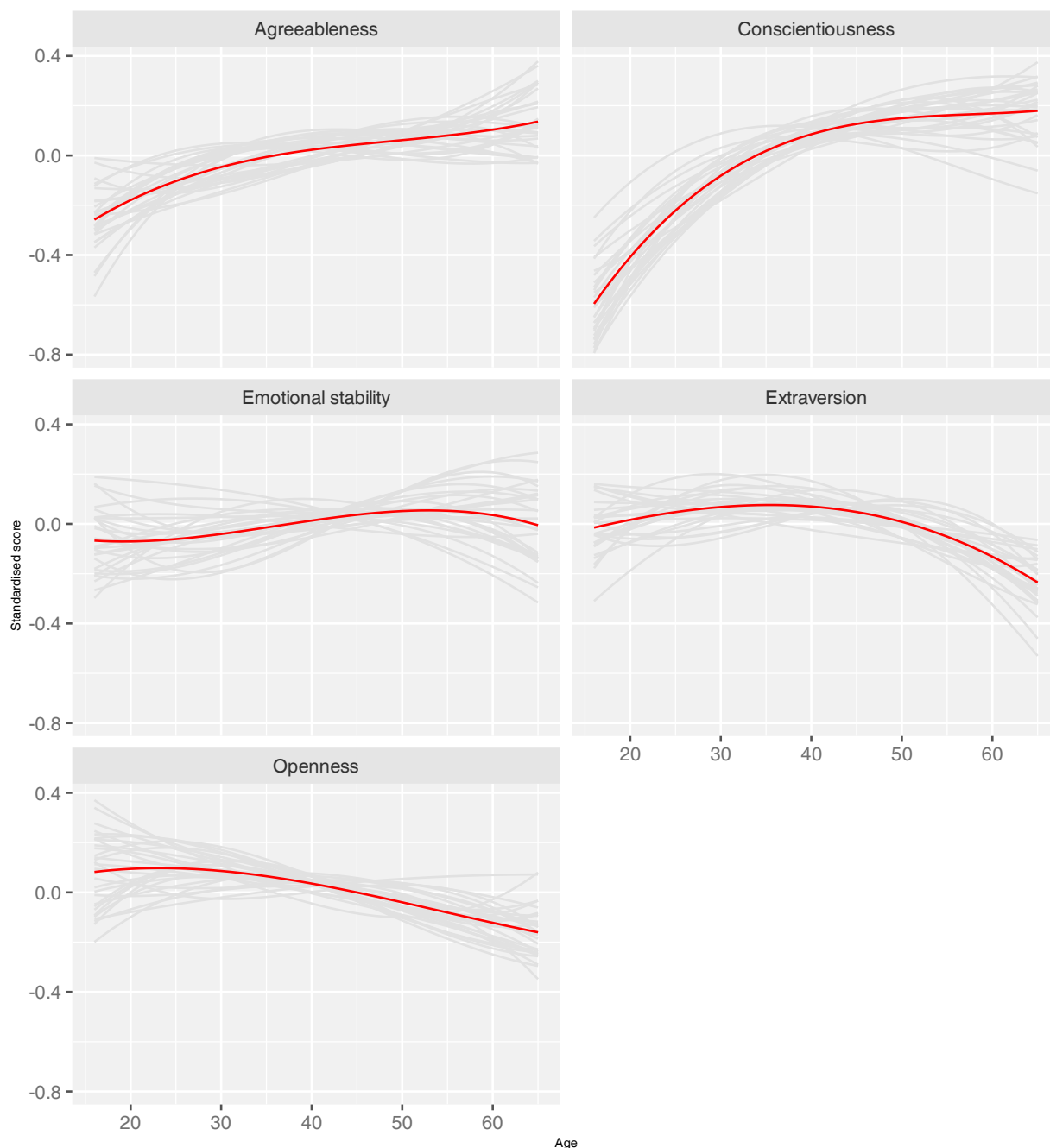
Note: Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for gender, immigrant background, parental education, whether one lives with a partner, whether one has children, employment status (employed, unemployed, out of the labour force) and years of education attained. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the unadjusted difference in each Big Five domain between younger and older adults.

Source: OECD (2024^[4]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 4.2. Reported levels of agreeableness, conscientiousness and emotional stability increase with age, while openness declines

Unadjusted standardised trend scores in the Big Five domains by age



Note: Adults aged 16-65. Estimates are obtained from separate regression models of each Big Five domain on age, the squared of the age and its cube.

Source: Source OECD (2024^[4]), *Survey of Adult Skills (PIAAC)* database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

In addition, Figure 4.2 shows the relationships between age and the Big Five domains. The observed patterns closely resemble those obtained from longitudinal studies (Specht, Egloff and Schmukle, 2011^[3];

Roberts, Walton and Viechtbauer, 2006^[2]). On average, across the participating countries and economies, reported levels of agreeableness, conscientiousness and emotional stability increase with age. However, the increase in emotional stability is less pronounced and reflects divergent patterns across countries. Openness tends to decline consistently with age across all countries and economies. Extraversion follows a bell-shaped trajectory: average levels increase slightly until around age 40 and decline more sharply thereafter.

Differences in social and emotional skills related to gender

Gender differences in the Big Five domains have been extensively documented. Overall, previous studies show that women tend to score higher than men, on average, in agreeableness and conscientiousness, whereas differences in other dimensions are less pronounced and consistent (Murphy, Fisher and Robie, 2021^[5]). At the facet level, women have been shown to score, on average, lower in assertiveness and openness to ideas, and higher in anxiety, compassion, warmth and openness to feelings (Costa, Terracciano and McCrae, 2001^[6]; Weisberg, DeYoung and Hirsh, 2011^[7]). These gender differences are observed from early childhood through adulthood (Else-Quest et al., 2006^[8]; Feingold, 1994^[9]). They also persist across a wide range of measures and data sources (78 Members of the Personality Profiles of Cultures Project, 2005^[10]). Moreover, gender differences in the Big Five domains have been consistently observed across different countries and languages (Schmitt et al., 2008^[11]).

Women tend to be more agreeable and conscientious than men

The results of the 2023 Survey of Adult Skills generally confirm the trends observed in previous studies (Figure 4.3). Across all participating countries and economies, women report, on average, higher levels of agreeableness and lower levels of emotional stability than men. In all countries and economies, except in Czechia, Korea, Latvia and the Slovak Republic, women score, on average, higher in conscientiousness than men. Differences in conscientiousness are less pronounced than those in agreeableness and emotional stability.

Results regarding extraversion and openness are less consistent across countries. Women score somewhat lower in extraversion in Italy, Poland, Singapore and the Slovak Republic, and somewhat higher in Austria, Denmark, Estonia, Finland, France, Germany, Israel, Lithuania, Portugal and Spain. In the openness domain, women score, on average, higher than men in twelve countries, and lower only in England (United Kingdom). Differences adjusted for socio-demographic characteristics are generally the same as the unadjusted ones, because women and men do not differ substantially regarding these characteristics.

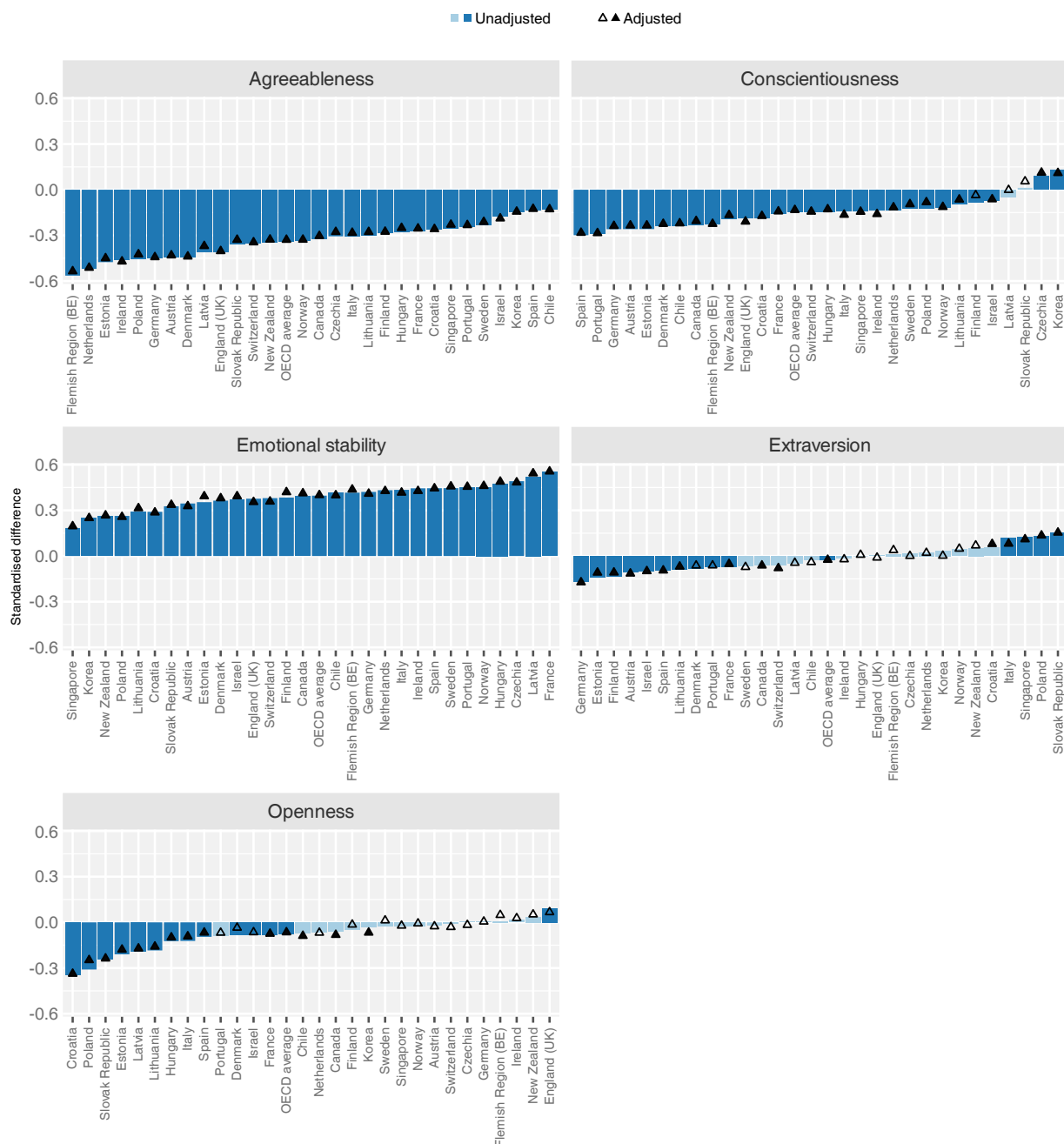
Gender differences in emotional stability narrow down with age

Age, or more precisely the birth cohort to which individuals belong, may play a key role in shaping gender differences in social and emotional skills. Norms and expectations around gender roles have evolved substantially over the past few decades, influencing how men and women are encouraged to develop and express these skills. As a result, younger and older adults may exhibit distinct patterns of gender differences in the Big Five domains, reflecting their unique socialisation experiences and life trajectories.

Figure 4.4 shows that, in most countries and economies, gender differences in emotional stability are largest among 16-24 year-olds and tend to narrow with age, being smallest among 45-65 year-olds. Exceptions from this pattern are Croatia, Hungary, Italy, Poland and the Slovak Republic, where gender differences in emotional stability are similar among the age groups.

Figure 4.3. Men have lower average levels of agreeableness and conscientiousness and higher levels of emotional stability than women

Adjusted and unadjusted standardised difference in the Big Five domains between men and women



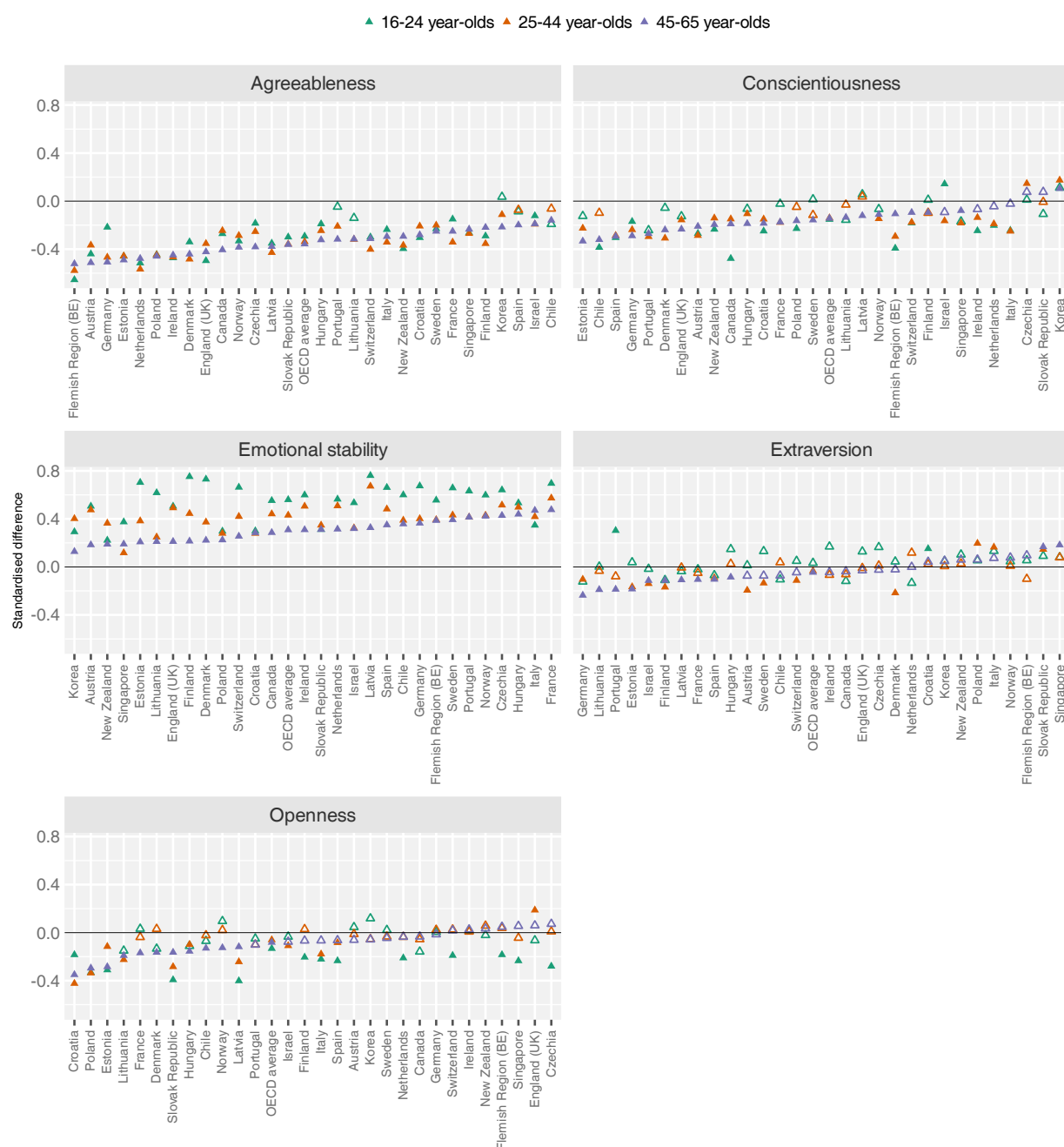
Note: Adults aged 16-65. Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for age, immigrant background, parental education, whether one lives with a partner, whether one has children, employment status (employed, unemployed, out of the labour force) and years of education attained. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the unadjusted difference in each Big Five domain between men and women.

Source: OECD (2024^[4]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 4.4. Gender differences in emotional stability are wider among younger adults than among older ones

Unadjusted standardised difference in the Big Five domains between men and women, by age



Note: Adults aged 16-65. Unadjusted differences are the differences between the two averages for each contrast category. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the difference in each Big Five domain between men and women aged 45-65.

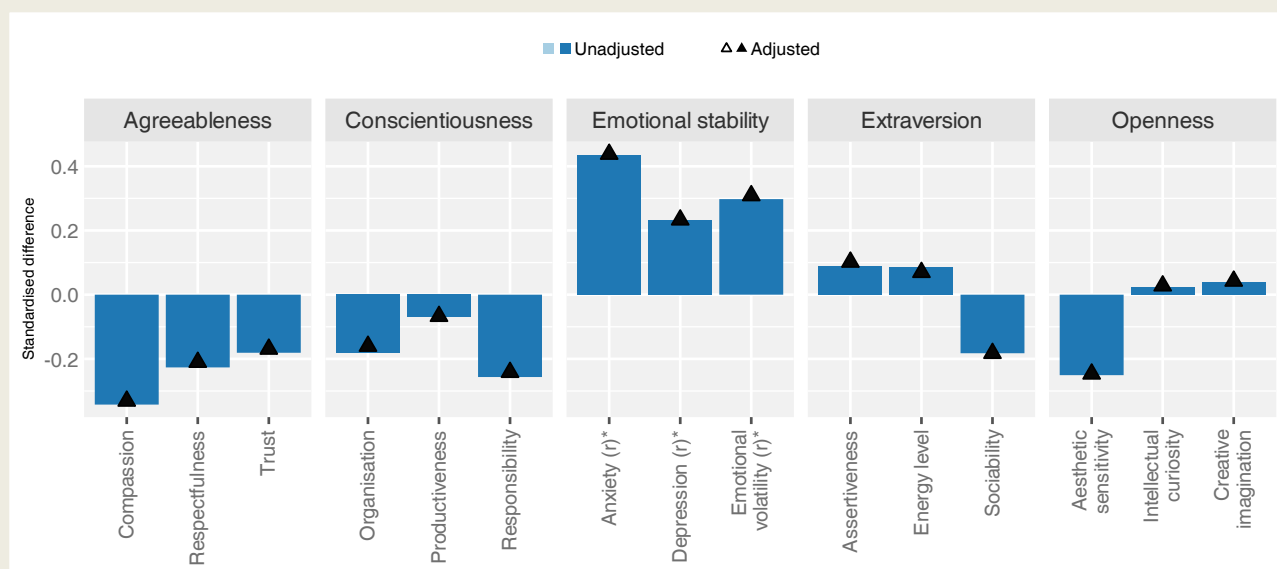
Source: OECD (2024^[4]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Box 4.1. Gender differences in the Big Five facets

Analyses at the level of the Big Five facets reveal that, compared to men, women report, on average, higher levels of compassion, respectfulness and trust (facets of agreeableness), organisation, productiveness and responsibility (facets of conscientiousness), and higher levels of anxiety, depression and emotional volatility (facets of emotional stability) (Figure 4.5). Gender differences in the sub-dimensions of extraversion go in opposite directions. While men score slightly higher, on average, in assertiveness and energy level than women, they report lower average levels of sociability. In the domain of openness, women report, on average, higher levels of aesthetic sensitivity, while there are only small gender differences with regard to intellectual curiosity and creative imagination.

Figure 4.5. Women score higher in sociability and aesthetic sensitivity than men

Adjusted and unadjusted standardised difference in the Big Five facets between men and women



Note: Adults aged 16-65; aggregated results across the OECD countries that used the BFI-2-S measure. Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for age, immigrant background, parental education, whether one lives with a partner, whether one has children, employment status (employed, unemployed, out of the labour force) and years of education attained. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[4]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Countries exhibit similar patterns of gender differences in the Big Five facets with some notable exceptions (Annex A). With regard to assertiveness, men and women do not differ significantly in Germany, Estonia, Portugal and Spain, while women have higher average scores than men in Chile. Gender differences in energy level are not significant in Croatia, Czechia, Estonia and Portugal, while in Germany women report higher scores than men on this facet. With regard to intellectual curiosity and creative imagination, gender differences in opposite directions are observed across some countries. In Germany and Korea, men report higher average levels of intellectual curiosity than women, while the reverse is true in Croatia, Estonia and Italy. For creative imagination, men score higher on average in Czechia, Germany, Korea, New Zealand, and Norway, whereas women score higher in Croatia and Estonia.

In contrast, gender differences in agreeableness, conscientiousness and extraversion are largely similar across these age groups across countries (Figure 4.4). In the domain of openness, gender differences are more strongly pronounced among the youngest age group in Czechia, the Flemish Region (Belgium), Latvia, the Netherlands, Singapore, the Slovak Republic, Spain and Switzerland, with younger women scoring higher than younger men relative to other age groups.

Differences in social and emotional skills related to parental education

Socio-economic background has been shown to influence a wide range of life outcomes across both childhood and adulthood. Children from more advantaged backgrounds tend to perform better in reading, mathematics and science, access and complete higher levels of education, enjoy better health and report higher levels of well-being (OECD, 2023^[12]). Similarly, adults from privileged backgrounds tend to have higher literacy and numeracy proficiency, higher educational attainment, better physical and mental health, as well as greater success in the labour market (OECD, 2024^[13]). These disparities are often attributed to the fact that parents with high socio-economic status are typically able to offer their children better material resources, greater support and more enriching environments, as well social and cultural capital that shape children's development from an early age (Boudon, 1974^[14]; Breen and Goldthorpe, 1997^[15]; Erikson et al., 2005^[16]; Lucas, 2001^[17]).

OECD studies have shown that the impacts of socio-economic background go beyond cognitive and educational outcomes to influence young people's social and emotional skills. For example, PISA results indicate that 15-year-old students' performance in creative thinking is related to their socio-economic status (OECD, 2024^[18]). OECD's Survey of Social and Emotional Skills (SSES) shows that students with higher economic, social and cultural status report higher levels across all assessed skills – including curiosity, tolerance, creativity, responsibility, self-control, persistence, achievement motivation, sociability, assertiveness, energy, empathy, trust, stress resistance, optimism and emotional control – compared to their counterparts from less advantaged backgrounds (OECD, 2024^[19]).

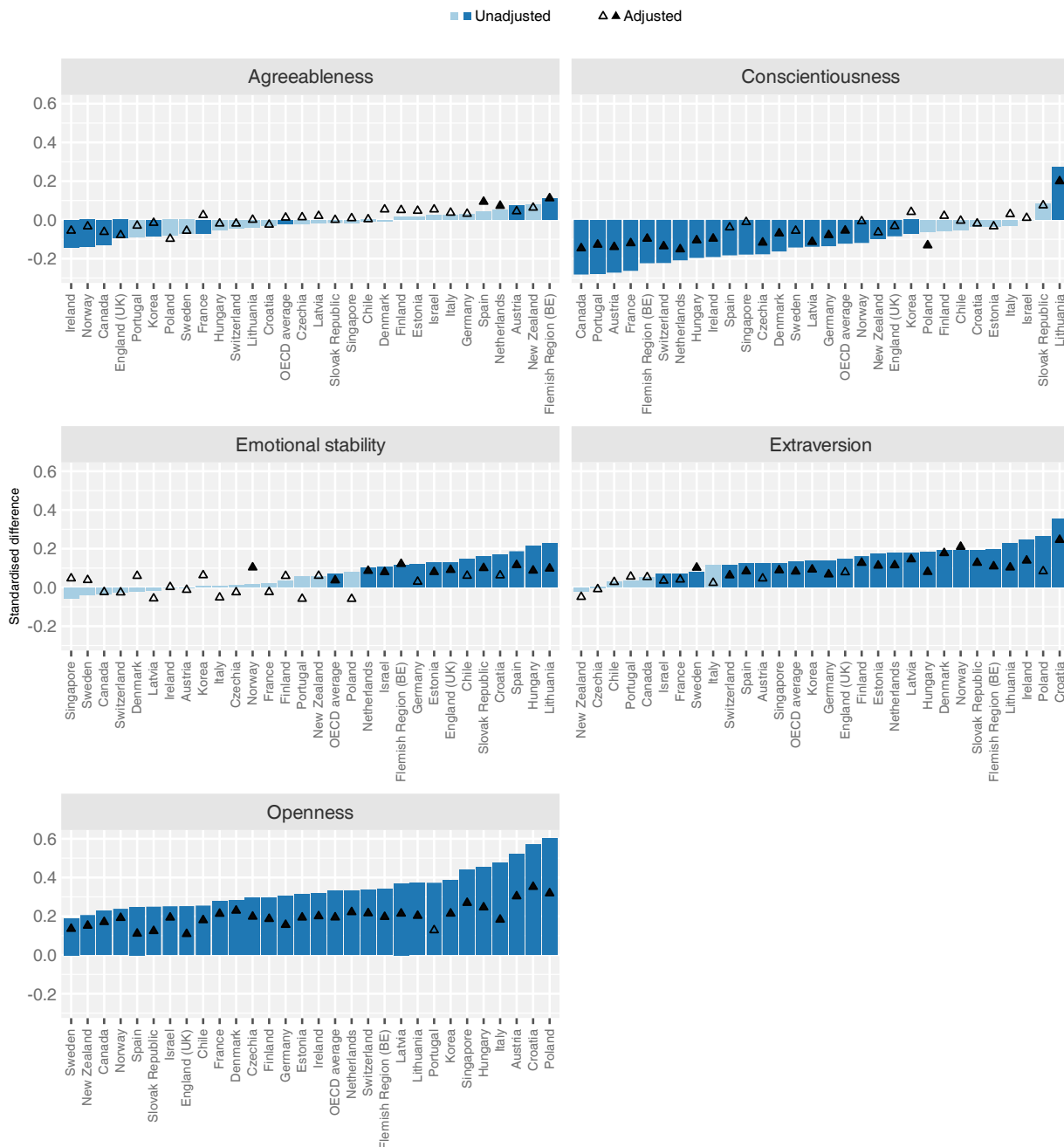
Adults from less educated families report, on average, lower openness to experience

The results of the 2023 Survey of Adults Skills confirm that parental educational attainment influences social and emotional skills well into adulthood (Figure 4.6). The analysis compares two groups of adults: those who have at least one parent who has attained tertiary education (adults with highly educated parents) with those whose parents have attained upper secondary education at most (adults with lower-educated parents). The results indicate that adults with highly educated parents demonstrate, on average, higher levels of openness to experience across all participating countries and economies. Similar differences are observed for extraversion in all countries and economies, except Canada, Chile, Czechia, Italy, New Zealand and Portugal, where no significant differences are observed. In 12 countries and economies, emotional stability is also positively related to parental education.

Different patterns emerge for the Big Five domains conscientiousness and agreeableness. In most countries and economies, adults with lower-educated parents report, on average, higher levels of conscientiousness than those with highly educated parents. Exceptions are Chile, Croatia, Estonia, Finland, Italy, Israel, Poland and the Slovak Republic, where the difference is not significant, and Lithuania, where adults from advantaged backgrounds report higher average levels of conscientiousness. In Canada, England (United Kingdom), France, Ireland, Korea and Norway, adults with lower-educated parents score, on average, somewhat higher in agreeableness than adults with highly educated parents. In the remaining countries and economies, there is no significant difference between the groups, while in Austria and the Flemish Region (Belgium), the reversed pattern is observed.

Figure 4.6. Adults with at least one tertiary-educated parent tend to report higher levels of openness and lower conscientiousness than their counterparts with less educated parents

Adjusted and unadjusted standardised difference in the Big Five domains between adults with at least one tertiary-educated parent and adults with parents with at most an upper secondary education



Note: Adults aged 16-65. Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for gender, age, immigrant background, whether one lives with a partner, whether one has children, employment status (employed, unemployed, out of the labour force) and years of education attained. Darker colours denote differences that are statistically significant at the 5% level. Countries and economies are ranked in ascending order of the difference in each Big Five domain between adults with highly educated and lower-educated parents.

Source: OECD (2024), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

These results are largely in line with previous findings. A study by Sutin and colleagues (2017^[20]) found that adults with highly educated parents have higher levels of openness, extraversion and emotional stability than adults with less educated parents. Parental educational attainment was unrelated to conscientiousness. These findings were replicated in a subsample of adopted individuals, which suggests that environmental mechanisms are as important as shared genetics.

The relationship between parental education and social and emotional development may be mediated by many factors, including access to quality education, early childhood experiences and parental practices. Accounting for differences in respondents' educational attainment and other socio-demographic characteristics substantially reduces the differences in social and emotional skills by parental education, suggesting that these factors are important channels of the observed disparities. However, even after adjusting for these factors, differences in openness remain significant across all participating countries and economies (except Portugal), and differences in extraversion persist in the majority of countries. These findings indicate that additional mechanisms contribute to the relationship between socio-economic background and adults' social and emotional skills.

Differences in social and emotional skills by parental education tend to be wider among older adults

Assessing socio-economic background with parental education requires separate analyses by age group, since there are generational differences in how common it was to have highly educated parents and the advantages linked to it. Detailed analyses by age are presented in Figure 4.7. The figure shows differences in the Big Five domains between adults with highly and lower-educated parents among 16-24, 25-44 and 45-65 year-olds.

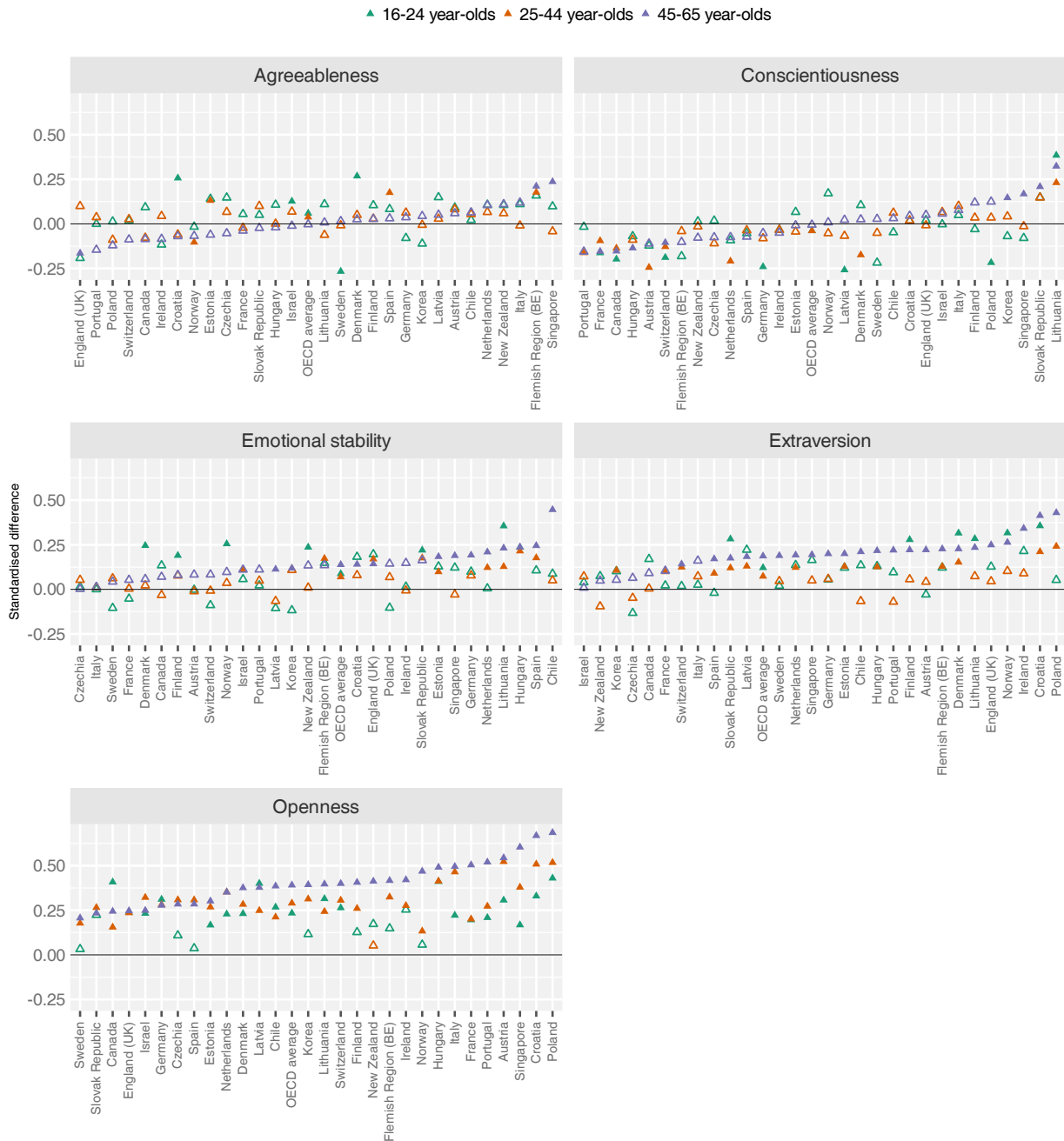
In the domains of openness and extraversion, socio-economic differences tend to be more pronounced among 45-65 year-olds. In the domain of openness, all countries register significant socio-economic differences in this age group, while these differences are smaller or not significant among 16-24 year-olds in most of the countries and economies. Exceptions are Canada, England (United Kingdom), Germany, Hungary, Israel, Latvia, Lithuania and the Slovak Republic, where socio-economic differences in openness among younger adults are similar to or wider than those among older adults. In the domain of extraversion, differences by parental education in the older age group are observed in most countries and economies, while only Croatia, Denmark, Finland, Lithuania, Norway and the Slovak Republic register such differences among younger adults.

The domain of emotional stability presents a more mixed pattern. One groups of countries, including Denmark, Finland, Lithuania, New Zealand and Norway, exhibits relatively larger differences in emotional stability by parental education among younger adults. Other countries such as Chile, Germany, Latvia, the Netherlands, Singapore and Spain, show somewhat larger differences by parental education among those aged 45-65.

In the domains of agreeableness and conscientiousness, differences between adults with highly and lower-educated parents are generally consistent across age groups. Exceptions in the domain of agreeableness are Sweden, where 16-24 year-olds with lower-educated parents score higher, on average, than their peers with highly educated parents, as well as Croatia and Denmark, where adults with highly educated parents report higher scores among the youngest age group. In the domain of conscientiousness, Germany, Latvia and Poland show relatively larger socio-economic differences among younger adults, with those from lower-educated backgrounds scoring higher, on average, than those from more advantaged families.

Figure 4.7. Differences in openness and extraversion by parental education tend to be more pronounced among older adults

Unadjusted standardised differences in the Big Five domains between adults with at least one tertiary-educated parent and adults with parents with at most an upper secondary education, by age



Note: Adults aged 16-65. Unadjusted differences are the differences between the two averages for each contrast category. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the difference in each Big Five domain between 45-65 year-olds with highly educated and lower-educated parents.

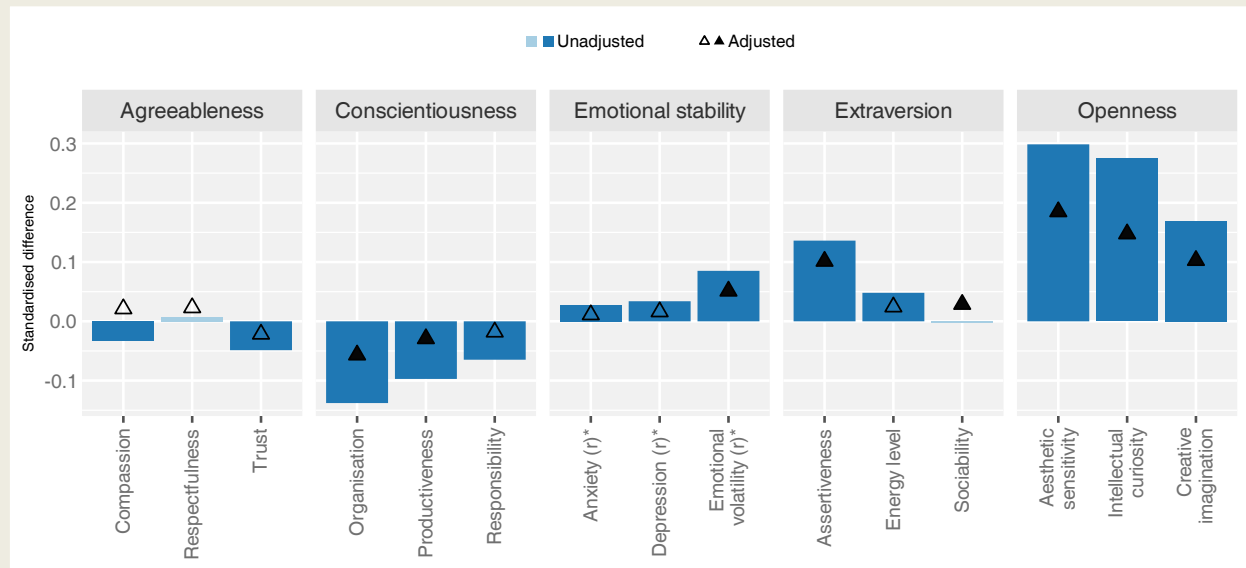
Source: OECD (2024^[4]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Box 4.2. Differences in the Big Five facets between adults with highly and lower-educated parents

Further analyses at the level of facets reveal significant socio-economic differences in most of the Big Five facets (Figure 4.8). On average across the OECD countries with available data, adults with highly educated parents report higher levels across the three facets of openness compared to their peers from less educated backgrounds. The largest differences are observed in aesthetic sensitivity and intellectual curiosity. The differences in the three facets remain significant, after adjusting for other factors, including respondents' educational attainment.

Figure 4.8. Adults with highly educated parents tend to be more assertive than their counterparts from less educated families

Adjusted and unadjusted standardised differences in the Big Five facets between adults with at least one tertiary-educated parent and adults with parents with at most an upper secondary education



Note: Adults aged 16-65; aggregated results across the OECD countries that used the BFI-2-S measure. Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for gender, age, immigrant background, whether one lives with a partner, whether one has children, employment status (employed, unemployed, out of the labour force) and years of education attained. (r) denotes reverse-coded sub-domains, where a positive score corresponds to a low tendency for anxiety, depression or emotional volatility (and thus higher emotional stability). Darker colours denote differences that are statistically significant at the 5% level.

Source: OECD (2024^[4]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

In the domain of extraversion, a larger socio-economic difference is observed in assertiveness, while there is no significant difference in sociability between adults with higher and lower parental education. In the domain of conscientiousness, those with lower-educated parents score, on average, higher in organisation, productiveness and responsibility, while in the domain of emotional stability, this group scores lower, on average, than their peers from more educated families. For agreeableness, a significant difference between the two groups is observed only for trust, with adults from disadvantaged backgrounds scoring somewhat higher, on average, on this facet.

Some countries deviate from the aggregate pattern (Annex A). In Spain, adults with highly educated parents score, on average, higher in trust than their counterparts from less advantaged backgrounds. In Chile, Croatia, Italy and the Slovak Republic, the socio-economic differences in the facets of conscientiousness are not statistically significant. In New Zealand and Portugal, the difference in assertiveness is not significant, while, in Chile, adults with lower-educated parents score, on average, higher in energy level. In sociability, adults with lower-educated parents have higher average scores in Czechia, while adults with highly educated parents score higher in Croatia, Estonia and Norway.

Differences in social and emotional skills related to immigrant background

There are several reasons to expect differences in the Big Five domains between adults with and without an immigrant background. Migration is often a highly selective process, shaped by factors such as motivation, risk tolerance, resilience and the capacity to adapt to new environments – traits that may be closely linked to the Big Five dimensions. Indeed, empirical studies show that openness and extraversion are positively associated with the propensity to migrate both across and within countries (Crown, Gheasi and Faggian, 2020^[21]; Fouarge, Özer and Seegers, 2019^[22]). Openness also positively relates to the willingness to move to culturally distant countries (Fouarge, Özer and Seegers, 2019^[22]).

Moreover, the experience of migration itself can influence the development and expression of social and emotional skills over time. The nature of migration – whether voluntary or forced, potential exposure to stress and uncertainty, as well as the process of integrating into a new culture all play a role in shaping social and emotional outcomes for migrants and their descendants. Perhaps the most important factor influencing migrants' social and emotional skills is their cultural background. The values, norms and social roles predominant in the host country, alongside with the socio-economic conditions under which migrants were socialised, impact the development of their social and emotional skills from early age.

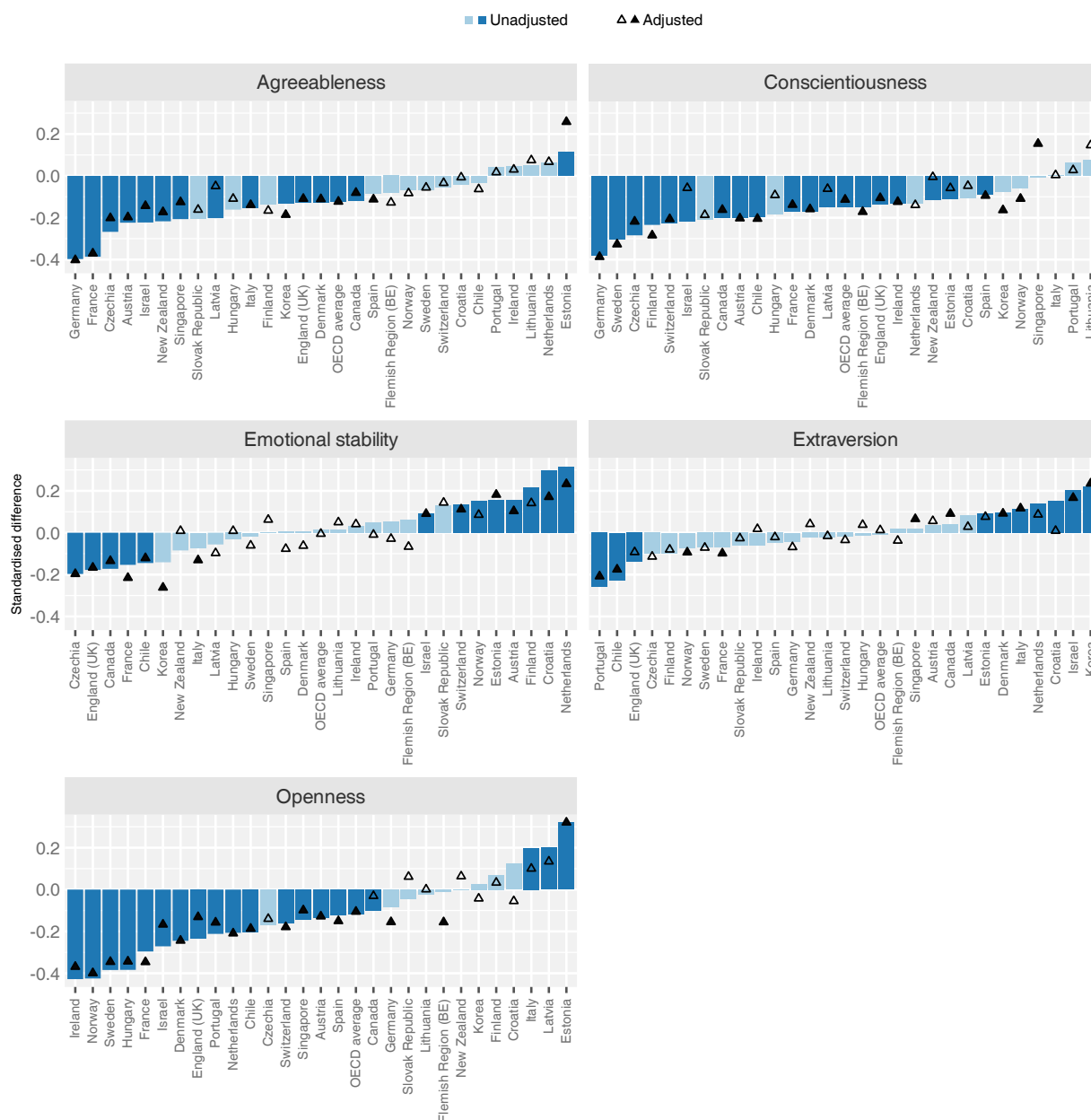
Migrants tend to be more agreeable, conscientious and open to new experience than non-migrants

The results of the 2023 Survey of Adults Skills reveal systematic differences in the Big Five domains between native-born and foreign-born adults in many countries and economies (Figure 4.9). These differences are more strongly pronounced in the domains of agreeableness, conscientiousness and openness, with foreign-born adults having higher average scores in most countries and economies, even after accounting for other characteristics. An exception is Estonia, where foreign-born adults score, on average, lower than native-born adults in agreeableness and openness. In Italy and Latvia, foreign-born adults also report lower average levels of openness, compared to the native-born population; however, these differences are not statistically significant after controlling for other characteristics.

Differences in emotional stability and extraversion by immigrant background are smaller and less consistent across countries and economies. In Canada, Chile, Czechia, England (United Kingdom) and France, foreign-born adults report, on average, somewhat higher levels of emotional stability than native-born adults. Conversely, in Austria, Croatia, Estonia, Finland, Israel, the Netherlands, Norway and Switzerland, foreign-born adults report lower levels of emotional stability. The remaining countries and economies show no significant differences in this domain. In the domain of extraversion, foreign-born adults report higher average levels in Chile, England (United Kingdom) and Portugal, and lower average scores in Croatia, Denmark, Estonia, Israel, Italy, Korea and the Netherlands, compared to the native-born population.

Figure 4.9. First-generation immigrants tend to report higher levels of agreeableness, conscientiousness and openness to experience

Adjusted and unadjusted standardised differences in the Big Five domains between native-born adults with native-born parents and foreign-born adults with foreign-born parents



Note: Adults aged 16-65. Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for gender, age, parental education, whether one lives with a partner, whether one has children, employment status (employed, unemployed, out of the labour force) and years of education attained. Poland is excluded due to small numbers of foreign-born adults. Darker colours denote differences that are statistically significant at the 5% level. Countries and economies are ranked in ascending order of the unadjusted difference in each Big Five domain between native-born adults with native-born parents and foreign-born adults with foreign-born parents.

Source: OECD (2024^[4]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 4.10 presents differences in the Big Five domains between native-born adults with native-born parents and second-generation migrants – those born in the country to foreign-born parents. These differences are observed in fewer countries and tend to be less consistent across countries. In the domains of agreeableness, conscientiousness, emotional stability and extraversion, most countries and economies do not exhibit significant differences between the two groups. In each of these domains, a few countries (between three and six) register significantly higher average scores for second-generation immigrants and a few countries (between three and four) register significantly higher scores for native-born adults with native-born parents. A more consistent pattern is observed for openness – in nine of the 23 countries and economies with available data, second-generation migrants score significantly higher, on average. Only in Estonia, Latvia and Singapore do native-born adults with native-born parents report significantly higher average levels of openness.

Differences in social and emotional skills related to educational attainment

This section examines differences in social and emotional skills across levels of educational attainment. Such differences are expected, as people with certain social and emotional skills may be more likely to pursue and succeed in higher education. Skills related to conscientiousness and open-mindedness are known to play a role in academic success and are likely to influence educational decisions over time. Individuals with these skills tend to perform better academically and are more inclined to value education as a pathway to personal and professional development (OECD, 2024^[19]). As a result, higher levels of educational attainment may reflect the social and emotional characteristics of those who remain and succeed within the education system.

At the same time, educational environments may contribute directly to the development of social and emotional skills. Through structured tasks, long-term goal-setting, collaboration and exposure to new ideas, formal education can help strengthen skills such as conscientiousness, openness to experience and emotional stability. Moreover, individuals with higher levels of education often have access to broader social networks, more varied professional opportunities and greater autonomy in their work – conditions that may further reinforce the development and expression of certain social and emotional skills.

Highly educated adults tend to score higher in all Big Five domains compared to lower educated adults

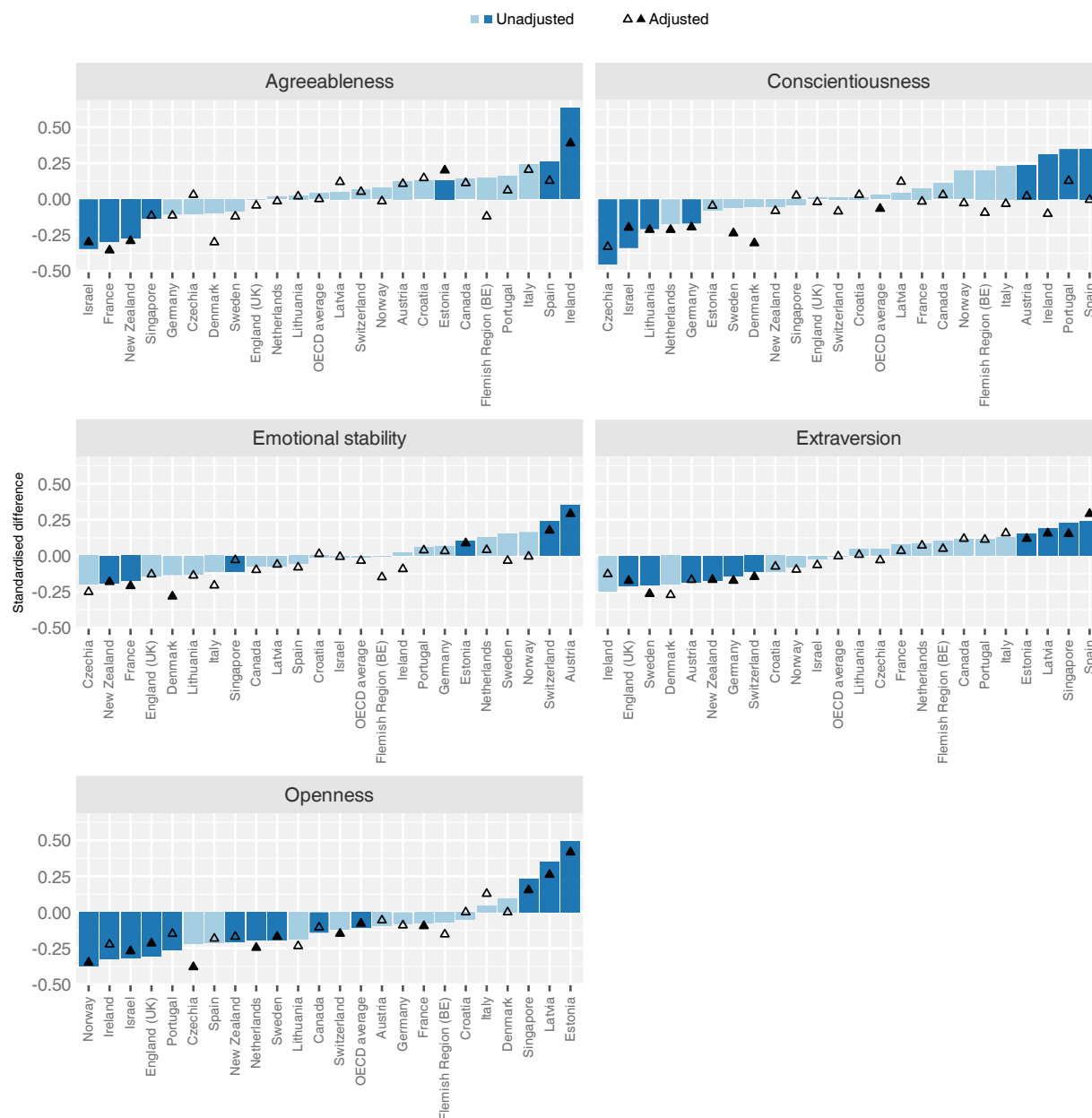
Findings from the 2023 Survey of Adults Skills indicate that tertiary-educated adults tend to score higher in emotional stability, extraversion and openness to experience compared to adults with below upper secondary education (Figure 4.11). Exceptions are Norway and Sweden, where differences in emotional stability are not significant. Similarly, in Czechia, Portugal and Sweden, no significant differences are observed in extraversion.

In the domains of agreeableness and conscientiousness, differences between high- and low-educated adults are relatively smaller and observed in fewer countries. In 16 countries and economies, tertiary-educated adults report significantly higher levels of agreeableness, while in 19 countries, this groups scores higher in conscientiousness. In Austria, adults with below upper secondary education score somewhat higher in conscientiousness than those with tertiary education.

In some countries and economies, differences in social and emotional skills by educational attainment are smaller or not significant after adjusting for factors such as age. This suggests that, in these contexts, the observed differences are partly related to differences in the socio-demographic composition of education groups.

Figure 4.10. Differences in the Big Five domains between non-immigrants and second-generation immigrants are narrower and significant in fewer countries

Adjusted and unadjusted standardised differences in the Big Five domains between native-born adults with native-born parents and native-born adults with foreign-born parents



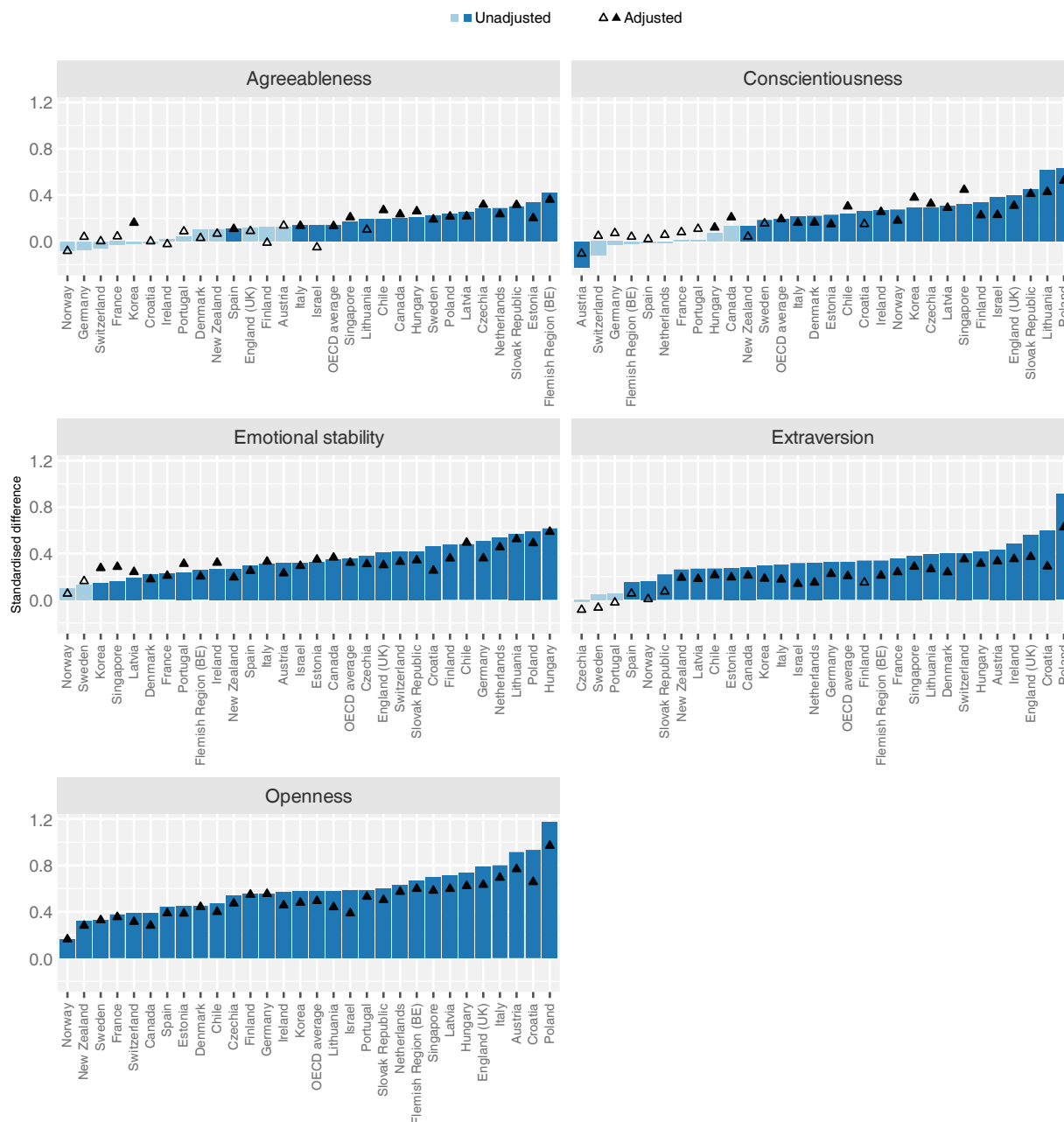
Note: Adults aged 16-65. Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for gender, age, parental education, whether one lives with a partner, whether one has children, employment status (employed, unemployed, out of the labour force) and years of education attained. Chile, Finland, Hungary, Korea, Poland and the Slovak Republic are excluded due to small numbers of native-born adults with foreign-born parents. Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the unadjusted difference in each Big Five domain between native-born adults with native-born parents and native-born adults with foreign-born parents.

Source: OECD (2024^[4]), Survey of Adult Skills (PIAAC) database, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

Figure 4.11. There are pronounced differences in openness to experience between tertiary-educated adults and adult with below upper secondary education

Adjusted and unadjusted standardised differences in the Big Five domains between adults with tertiary education and adults with below upper secondary education



Note: Adults aged 16-65. Unadjusted differences are the differences between the two averages for each contrast category. Adjusted differences are obtained from a regression model controlling for immigrant background, gender, age, parental education, whether one lives with a partner, whether one has children and employment status (employed, unemployed, out of the labour force). Darker colours denote differences that are statistically significant at the 5% level.

Countries and economies are ranked in ascending order of the unadjusted difference in each Big Five domain between tertiary-educated adults and adult with below upper secondary education.

Source: OECD (2024^[4]), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025).

A comparison between adults with tertiary education and adults with upper-secondary education reveals a similar pattern, although differences in social and emotional skills levels are relatively smaller (Annex A). The largest differences appear in the domain of openness, where tertiary-educated adults consistently report higher average scores across all countries and economies. In most countries and economies, tertiary-educated adults also report higher average levels of emotional stability and extraversion. In agreeableness and conscientiousness, tertiary-educated adults score, on average, higher than adults with upper secondary education in approximately half of the countries and economies. Only in Austria, do adults with upper secondary education score, on average, higher in conscientiousness.

Table 4.1. Chapter 4 Figures

Figure 4.1	Older adults report higher levels of agreeableness and conscientiousness and lower levels of openness and extraversion than younger adults, while age differences in emotional stability vary across countries
Figure 4.2	Reported levels of agreeableness, conscientiousness and emotional stability increase with age, while openness declines
Figure 4.3	Men have lower average levels of agreeableness and conscientiousness and higher levels of emotional stability than women
Figure 4.4	Gender differences in emotional stability are wider among younger adults than among older ones
Figure 4.5	Women score higher in sociability and aesthetic sensitivity than men
Figure 4.6	Adults with at least one tertiary-educated parent tend to report higher levels of openness and lower conscientiousness than their counterparts with less educated parents
Figure 4.7	Differences in openness and extraversion by parental education tend to be more pronounced among older adults
Figure 4.8	Adults with highly educated parents tend to be more assertive than their counterparts from less educated families
Figure 4.9	First-generation immigrants tend to report higher levels of agreeableness, conscientiousness and openness to experience
Figure 4.10	Differences in the Big Five domains between non-immigrants and second-generation immigrants are narrower and significant in fewer countries
Figure 4.11	There are pronounced differences in openness to experience between tertiary-educated adults and adult with below upper secondary education

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References

- 78 Members of the Personality Profiles of Cultures Project (2005), “Universal Features of Personality Traits From the Observer’s Perspective: Data From 50 Cultures.”, *Journal of Personality and Social Psychology*, Vol. 88/3, pp. 547-561, <https://doi.org/10.1037/0022-3514.88.3.547>. [10]
- Boudon, R. (1974), *Education, opportunity, and social inequality; changing prospects in Western society*, Wiley, New York. [14]
- Breen, R. and J. Goldthorpe (1997), “Explaining educational differentials”, *Rationality and Society*, Vol. 9/3, pp. 275-305, <https://doi.org/10.1177/104346397009003002>. [15]
- Costa, P., A. Terracciano and R. McCrae (2001), “Gender differences in personality traits across cultures: Robust and surprising findings.”, *Journal of Personality and Social Psychology*, Vol. 81/2, pp. 322-331, <https://doi.org/10.1037/0022-3514.81.2.322>. [6]
- Crown, D., M. Gheasi and A. Faggian (2020), “Interregional mobility and the personality traits of migrants”, *Papers in Regional Science*, Vol. 99/4, pp. 899-915, <https://doi.org/10.1111/pirs.12516>. [21]

- Else-Quest, N. et al. (2006), "Gender differences in temperament: A meta-analysis.", *Psychological Bulletin*, Vol. 132/1, pp. 33-72, <https://doi.org/10.1037/0033-2909.132.1.33>. [8]
- Erikson, R. et al. (2005), "On class differentials in educational attainment", *Proceedings of the National Academy of Sciences*, Vol. 102/27, pp. 9730-9733, <https://doi.org/10.1073/pnas.0502433102>. [16]
- Feingold, A. (1994), "Gender differences in personality: A meta-analysis.", *Psychological Bulletin*, Vol. 116/3, pp. 429-456, <https://doi.org/10.1037/0033-2909.116.3.429>. [9]
- Fouarge, D., M. Özer and P. Seegers (2019), "Personality Traits, Migration Intentions," *IZA Institute for Labor Economics IZA DP No. 12444*. [22]
- Lucas, S. (2001), "Effectively Maintained Inequality: Education Transitions, Track Mobility, and Social Background Effects", *American Journal of Sociology*, Vol. 106/6, pp. 1642-1690, <https://doi.org/10.1086/321300>. [17]
- Murphy, S., P. Fisher and C. Robie (2021), "International comparison of gender differences in the five-factor model of personality: An investigation across 105 countries", *Journal of Research in Personality*, Vol. 90, p. 104047, <https://doi.org/10.1016/j.jrp.2020.104047>. [5]
- OECD (2024), *Do Adults Have the Skills They Need to Thrive in a Changing World?: Survey of Adult Skills 2023*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/b263dc5d-en>. [13]
- OECD (2024), *PISA 2022 Results (Volume III): Creative Minds, Creative Schools*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/765ee8c2-en>. [18]
- OECD (2024), *Social and Emotional Skills for Better Lives: Findings from the OECD Survey on Social and Emotional Skills 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/35ca7b7c-en>. [19]
- OECD (2024), *Survey of Adult Skills (PIAAC) database*, <http://www.oecd.org/skills/piaac/publicdataandanalysis/> (accessed on 11 August 2025). [4]
- OECD (2023), *PISA 2022 Results (Volume I): The State of Learning and Equity in Education*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/53f23881-en>. [12]
- Rammstedt, B., C. Lechner and D. Danner (2024), "Beyond literacy: The incremental value of non-cognitive skills", *OECD Education Working Papers*, No. 311, OECD Publishing, Paris, <https://doi.org/10.1787/7d4fe121-en>. [1]
- Roberts, B., K. Walton and W. Viechtbauer (2006), "Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies.", *Psychological Bulletin*, Vol. 132/1, pp. 1-25, <https://doi.org/10.1037/0033-2909.132.1.1>. [2]
- Schmitt, D. et al. (2008), "Why can't a man be more like a woman? Sex differences in Big Five personality traits across 55 cultures.", *Journal of Personality and Social Psychology*, Vol. 94/1, pp. 168-182, <https://doi.org/10.1037/0022-3514.94.1.168>. [11]
- Specht, J., B. Egloff and S. Schmukle (2011), "Stability and change of personality across the life course: The impact of age and major life events on mean-level and rank-order stability of the Big Five.", *Journal of Personality and Social Psychology*, Vol. 101/4, pp. 862-882, <https://doi.org/10.1037/a0024950>. [3]

- Sutin, A. et al. (2017), "Parental educational attainment and adult offspring personality: An intergenerational life span approach to the origin of adult personality traits.", *Journal of Personality and Social Psychology*, Vol. 113/1, pp. 144-166, [20]
<https://doi.org/10.1037/pspp0000137>.
- Weisberg, Y., C. DeYoung and J. Hirsh (2011), "Gender Differences in Personality across the Ten Aspects of the Big Five", *Frontiers in Psychology*, Vol. 2, [7]
<https://doi.org/10.3389/fpsyg.2011.00178>.

5

How can policies support social and emotional learning for all?

This chapter explores policy options for promoting social and emotional learning across the life course, building on findings of this report that highlight the importance of these skills in shaping a wide range of life outcomes in adults' lives. It examines how learning opportunities can be embedded in education systems, non-formal learning and workplaces to contribute to the development of these skills in both youth and adulthood. It also addresses the challenge of ensuring equal access to such opportunities and developing targeted measures for specific socio-demographic groups. Adopting a comprehensive, lifelong-learning approach is essential to equip adults with the social and emotional skills needed to thrive as workers, learners and citizens.

In Brief

The 2023 Survey of Adult Skills shows that social and emotional skills – including agreeableness, conscientiousness, emotional stability, extraversion and openness to experience – relate to educational attainment, employment outcomes, well-being, health and civic engagement. Yet these skills systematically differ across socio-demographic groups, reflecting social norms, educational opportunities and cumulative advantages. This highlights the need for targeted policies to support social and emotional learning (SEL) throughout life. A lifelong-learning approach that embeds SEL in education systems, non-formal learning and workplaces can help strengthen these skills in both youth and adulthood.

Policy options:

- **Extend SEL beyond K-12:** Most current efforts focus on children and adolescents. However, evidence shows that social and emotional skills can be also strengthened in adulthood. Expanding SEL policies to adulthood requires an adult-centred SEL framework that identifies social and emotional skills that are impactful, meanable through interventions, and granular enough to support practical learning and intervention design. Existing employability frameworks that include SEL offer useful starting points.
- **Leverage post-secondary and vocational pathways:** Many vocational education programmes and higher education institutions embed SEL in curricula, work-based projects and mentoring. A more systematic adoption would require a comprehensive SEL framework that is aligned with labour market needs as well as efforts to strengthen the capacity of educators and trainers to teach and assess SEL.
- **Harness non-formal learning:** Non-formal learning activities such as community education, online courses and volunteer programmes, already build communication, teamwork and leadership skills, even when not labelled SEL. Governments can formalise and expand these learning opportunities by supporting structured curricula that explicitly targets SEL, introducing digital badges or micro-credentials that make SEL achievements visible, and providing incentives that widen access for under-represented adults.
- **Target disadvantaged groups:** Persistent differences in social and emotional skills by gender, immigrant background, parental education, educational attainment and literacy proficiency call for tailored interventions. Policies should aim at integrating SEL into compulsory schooling to ensure that all children have an equal starting point in developing social and emotional competencies. Policies should also embed SEL into language and integration programmes for migrants, active labour-market programmes for the unemployed, and adult education to support vulnerable groups. At the same time, initiatives should challenge stereotypes – for example, by encouraging girls' leadership and boys' empathy.
- **Embed SEL in workplaces:** Workplaces are key settings for developing social and emotional skills throughout adulthood. Governments can reinforce this role by making SEL an explicit objective of publicly funded workforce programmes. For example, public support for training provided through individual learning accounts, training vouchers or employer subsidies could require providers to state SEL objectives and align training to a recognised SEL framework. In addition, governments can tackle structural barriers in SEL provision by supporting small and medium-sized enterprises, which often lack the resources or expertise to design training programmes.

Introduction

The 2023 Survey of Adult Skills confirms that social and emotional skills play a role across education, work and well-being, complementing cognitive skills in shaping adults' lives. Adults with higher levels of openness to experience and emotional stability are more likely to attain higher levels of education and to maintain strong literacy, numeracy and problem-solving skills in nearly all participating countries and economies (see Chapter 2). Extraversion, emotional stability and conscientiousness are linked to employment, job satisfaction and wages, even after accounting for education and cognitive skills. Beyond labour market success, social and emotional skills are associated with health, life satisfaction and civic engagement (see Chapter 3). The evidence points to the need for skills policies that look beyond cognitive proficiency alone.

At the same time, the results of this report show that social and emotional skills differ across socio-demographic groups of the adult population (see Chapter 4). Systematic differences emerge by gender, age, parental education and immigrant background, suggesting that social roles, norms and structures shape the social and emotional development of social groups differently. Without policy attention, these differences risk reinforcing existing social and economic divides. In addition, the positive associations of social and emotional skills with cognitive skills and education point to cumulative advantages and disadvantages: unequal opportunities for learning can foster socio-economic differences in social and emotional skills, while uneven levels of social and emotional skills may, in turn, reinforce inequalities in education and cognitive proficiency.

This chapter explores policy options for promoting social and emotional learning across the life course. It discusses how such learning opportunities can be embedded in education systems, non-formal learning and workplaces to contribute to the development of these skills in both youth and adulthood. It also addresses the challenge of ensuring equal access to such opportunities and developing targeted measures for specific socio-demographic groups. Such a comprehensive, lifelong-learning approach goes beyond current policy efforts, which largely concentrate on early education and schools, and responds to the need of strengthening these skills in the adult population to prepare workers and citizens for the future.

Because empirical evidence and policy guidance on fostering social and emotional skills in adulthood remain limited, this chapter is exploratory, seeking to frame promising policy directions and showcase policy examples that can inform future action. Rather than offering definitive prescriptions, it seeks to stimulate further debate, research and experimentation in this relatively new field. Continued analytical work, empirical research and policy evaluation will be essential to build a comprehensive foundation for effective social and emotional skills policies that span the entire life course.

The current approach: Promoting social and emotional learning in schools

In recent years, social and emotional skills have gained increasing prominence in education policy under the umbrella term of social and emotional learning (SEL). SEL refers to interventions and practices aimed at developing skills such as self-awareness, self-regulation, empathy, collaboration and responsible decision-making. Policymakers across OECD countries now view SEL as an important lever for promoting equity and inclusion, enhancing student well-being and strengthening resilience.

SEL policies are mostly designed for pre-primary, primary and secondary education. This focus reflects strong evidence that social and emotional skills are particularly malleable at younger ages (Steponavičius, Gress-Wright and Linzarini, 2023^[1]). In addition, investing in the development of social and emotional skills at an early stage tends to be more effective and cost-efficient than attempting to address skill gaps later in life, as early gains tend to accumulate over time and reinforce the growth of these skills throughout adolescence and adulthood.

Most OECD countries have embedded SEL into their national curricula, often as a holistic framework that outlines key competencies. For example, Finland has incorporated social and emotional learning as part of its national curriculum for general upper secondary education, focusing on a set of transversal skills that support student well-being (Finnish National Agency for Education, 2025^[2]). These skills are grouped into six key areas: well-being competences, interaction competences, multidisciplinary and creative competences, societal competences, ethical and environmental competences and global and cultural competences.

In addition, some countries incorporate SEL in existing subjects, most often in the humanities, national languages, science and the arts (OECD, 2024^[3]). Other develop dedicated courses for teaching social and emotional skills, such as citizenship education. Beyond the classroom, extracurricular activities and community engagement play a significant role in promoting SEL. Countries encourage students' participation in such activities through awarding credits, for example. In addition, they invest in teacher training and professional development, recognising the critical role of educators in fostering SEL. Programmes typically focus on equipping teachers with the skills and knowledge necessary to integrate SEL into their teaching practices effectively.

Assessing students' social and emotional skills is key to ensuring that educational goals and learning objectives are met. An assessment also helps detect inequalities in these skills among student groups and determine the need for intervention. An OECD report reviewed countries' practices in assessing, documenting and recognising social and emotional skills in upper secondary education (OECD, 2023^[4]). It concluded that, unlike other areas of learning, countries do not have system-wide monitoring tools for tracking the development of social and emotional skills. Current approaches are typically fragmented, using information from a variety of sources, including student self-reports, teacher observations, classroom-based assessments or students' achievements in extra-curricular activities, projects and work experiences.

Key considerations

Policy efforts to promote SEL in schools have been expanding across OECD countries, reflecting a growing recognition of the importance of these skills for students' academic success, well-being and future employability. However, unified, whole-system policy approaches for developing and monitoring these skills in formal education are still emerging. The OECD's Survey on Social and Emotional Skills (SSES) project outlined key policy actions toward a holistic approach for promoting social and emotional skills development across the education system (OECD, 2023^[5]; 2024^[6]):

Make social and emotional learning a policy priority and invest strategically

Social and emotional skills receive less systematic attention than academic knowledge and cognitive skills. Policymakers can address this imbalance by making social and emotional skills a core element of education strategies and committing sustained resources for their development. Investments based on empirical evidence, which target skills shown to have strong long-term effects, promise the largest returns. Investing in the design of programmes aiming to address the needs of disadvantaged learners is also crucial. Such strategic investment can support long-term learning and equity, ensuring that social and emotional learning is viewed not as a temporary initiative but as a fundamental part of skills policy.

Measure social and emotional skills systematically and use data effectively

Robust measurement is essential for recognising the impacts of social and emotional skills and for guiding action. Reliable assessments can help track progress, highlight inequities and inform teaching practices. While self-report surveys remain common, innovation is needed to move toward performance assessments of relevant behaviours that capture a wide range of skills. This requires investing in education research and exploring the potential of new technologies for developing more direct and robust assessments.

Importantly, assessment data should be shared with teachers, schools, families and policymakers so that it can inform learning, instruction and policy.

Support teachers with training, tools and time

Teachers are at the frontline of developing students' social and emotional skills, but many report lacking the confidence, tools or time to integrate social and emotional learning effectively (Jones et al., 2018^[7]). Policymakers should embed social and emotional skills in both initial teacher education and professional development programmes, ensuring that educators understand not only the theory but also practical strategies for fostering social and emotional skills in the classroom. Schools also need to provide conditions that are supportive for teachers: dedicated time for planning, access to quality materials, and mentoring or peer networks that support innovation. Incentives, such as recognition of practice related to SEL in career development frameworks, can further encourage uptake.

Adopt a whole-school and community approach

Social and emotional development does not happen in isolation: it is shaped by interactions at home, at school and in the community. Policies that promote a whole-school approach – where leadership, curriculum, school climate and extra-curricular activities all reinforce social and emotional learning – are more effective than isolated interventions. Engagement with parents and local communities is critical, as these skills are strengthened when they are consistently supported across contexts.

Developing adult-focused frameworks for social and emotional learning

The development of social and emotional skills does not stop at the end of formal schooling. These skills can be also cultivated in adulthood (Oliveira et al., 2021^[8]; Roberts et al., 2017^[9]). Results of the 2023 Survey of Adult Skills show that they play a role in shaping key life outcomes in adults' lives across a variety of contexts and countries. At the same time, social and emotional skills are unevenly distributed across socio-demographic groups. Supporting SEL in youth and adulthood can help reduce these inequalities, support professional and personal development, and enhance well-being across the population, ensuring that social and emotional skills remain accessible and relevant throughout life.

Yet most SEL policies, programmes and assessment tools have been designed for K-12 learners, and it is unclear how these resources translate to adult learning contexts (Giammarco, Higham and McKean, 2020^[10]). Expanding SEL beyond schools would require adapting existing SEL programmes and measurement tools to adult learners or developing new ones. Most importantly, such efforts would need to be anchored in a comprehensive, evidence-based skills framework that identifies the social and emotional skills with biggest impact across educational, professional and social contexts and, at the same time, with the strongest susceptibility to change through interventions and training.

This report used an extra short version of Big Five personality framework to analyse differences in broad social and emotional skill domains among adults and their associations with life outcomes. The Big Five framework is a valuable assessment tool for research given its comprehensiveness, cross-cultural applicability and analytical power across a variety of outcomes and life domains. However, its broad domains – each reflecting a large number of behavioural tendencies – are less suited for designing concrete interventions or training programmes. Adult-focused frameworks need to define more narrow competencies, such as teamwork, adaptability or conflict resolution. These narrow skills should be validated by research as being teachable through short-term learning and practice.

Therefore, while the empirical analyses of this report drew on the Big Five model to demonstrate the importance of social and emotional skill domains in adults' lives, the policy options discussed in this chapter focus instead on narrower, more readily teachable skills. Evidence suggests that many of these specific

social and emotional skills are conceptually related to the broad Big Five domains – for example, collaboration to agreeableness, self-efficacy to conscientiousness, emotional regulation to emotional stability, curiosity to openness to experience, and zest to extraversion (Walton et al., 2021^[11]). However, more research is needed to determine the impacts of such narrow skills across adult outcomes and their distribution across the adult population, to ensure that policy initiatives target the most impactful skills among groups who would benefit most from their development.

Some frameworks of employability skills have already begun to incorporate social and emotional components next to foundational cognitive skills. For example, the UK Skills Builder Framework defines so-called essential skills that are highly transferable and relevant to almost any work context, including creativity, leadership and teamwork (see Box 5.1). The World Economic Forum's 21st Century Skills Framework includes character qualities, such as curiosity and initiative, and competencies, such as creativity, next to foundational literacies, such as literacy, numeracy and science.¹ Other employability skills frameworks incorporating social and emotional skills include the World Bank's PRACTICE model, the Skills for Employment framework of the International Labour Organisation, the European Key Competences Framework of the European Union, and the CBI (Confederation of British Industry) Employability Skills Framework.

These frameworks inform the design of policies, training programmes and professional development initiatives, offering guidance on skill definitions, learning objectives and assessment strategies that are relevant for adults. They can serve as useful starting points for integrating SEL into broader lifelong learning and employability strategies.

Key considerations

SEL policies should move beyond the school setting to embed social and emotional skills in contexts where adults continue to learn and develop, such as vocational training, higher education, workplace training and non-formal learning. This would require a well-defined framework of social and emotional skills that are both impactful on life outcomes and amenable to improvement through targeted interventions. Such a framework would provide a shared language for policymakers, educators, employers and training providers, helping to align curricula, workplace programmes and adult learning initiatives around consistent learning objectives.

An adult SEL framework needs to define skills at a sufficiently granular level to support practical learning and intervention design, distinguishing broad domains from specific competencies that can be nurtured through short-term programmes. It must be adaptable to diverse contexts, recognising differences in learners' backgrounds, life stages and professional environments. It should also be accompanied by robust assessment tools that capture both existing skill levels and progress over time. Together, these elements would allow policymakers and training providers to better match programmes to learners' needs and scale up the most effective interventions.

Existing employability frameworks illustrate how adult-focused SEL frameworks can be operationalised. For instance, the UK Skills Builder Framework breaks down broad competencies into teachable, measurable components: teamwork, for example, includes the ability to encourage others, resolve conflicts and assess the effectiveness of the team. Drawing on these approaches, policymakers can design curricula and training programmes that explicitly foster social and emotional skills, while also providing clear benchmarks for assessment and evaluation.

Box 5.1. The Skills Builder Framework: Integrating social and emotional skills into employability development

The **Skills Builder Framework**, developed in the United Kingdom, provides a structured approach to developing eight essential skills that are critical for success in education, employment and wider life: *listening, speaking, problem solving, creativity, staying positive, aiming high, leadership and teamwork*. These skills reflect both cognitive and social-emotional dimensions and are broken down into 16 stages of progression, creating a clear roadmap for skill development from beginner to advanced levels.

A key strength of the framework is its **applicability across age groups and contexts**. So far it has been adopted widely by schools, colleges, universities, non-formal learning providers, employers and career services, offering a shared language and benchmarks to describe and assess progress.

In schools, the framework helps educators embed employability skills into the curriculum. In post-secondary and adult learning settings, it supports career guidance and preparation for work-based learning. Teachers and trainers use the framework to plan instruction and track progress by drawing on the progression steps to design lessons and set age-appropriate expectations. This structured approach provides students with visible milestones, supporting both motivation and reflection on personal growth.

In the workplace, employers and training providers use the framework to strengthen recruitment, professional development and workforce training. It helps organisations identify skill gaps, design targeted learning interventions, and ensure that training programmes are aligned with both job requirements and broader employability needs. For instance, an employer might use the framework during onboarding to assess a new employee's teamwork or problem-solving skills and then provide tailored development opportunities, such as mentoring or team-based projects, to build on these areas.

Source: See <https://www.skillsbuilder.org/universal-framework> (accessed on 18 August 2025).

Integrating social and emotional learning in VET and higher education

While SEL is increasingly established in K-12 education, its integration into vocational education and training (VET) and higher education remains limited and often fragmented. Most SEL initiatives in post-secondary institutions are either embedded informally in teaching practices, included as part of broader employability or life skills programmes, or delivered through optional extracurricular activities. Few institutions have comprehensive frameworks or systematic approaches to assess, monitor and develop these skills among students (Conley and Donahue-Keegan, 2024^[12]).

In vocational education and training, SEL is increasingly recognised as essential for employability and workplace readiness (Sauli, Wenger and Fiori, 2022^[13]). Some programmes incorporate team projects, client interactions and simulated work environments to foster collaboration, communication and resilience. Certain national VET systems, such as those in Germany and Switzerland, piloted projects to embed social and emotional competencies into curricula and teacher training (see Box 5.2). However, these practices are not yet standardised across programmes, and systematic evaluation of their effectiveness remains limited. At the international level, the programmes SELVET and EL4VET funded by the European Commission serve as examples for expanding and formalising SEL in VET (Rácz and Mc Donnell, 2015^[14]; Sauli, Wenger and Fiori, 2022^[13]).

Higher education institutions have been experimenting with SEL integration, particularly through interdisciplinary programmes and co-curricular activities such as mentoring, volunteering and group-based

projects. For example, some universities in the United States and Europe offer “soft skills” modules or embed SEL components in professional programmes such as medicine, engineering and business. Nevertheless, these initiatives are often voluntary, vary widely in scope and depth, and target SEL rather implicitly. Comprehensive approaches aiming to cultivate SEL within entire programmes or institutions are less common (Conley and Donahue-Keegan, 2024^[12]). An example is the Resilience Lab at the University of Washington, which provides students, staff and instructors with training and tools to build self-awareness, respond to stress more effectively and cultivate compassion.²

Box 5.2. Initiatives promoting social and emotional learning in vocational education and training in Germany and Switzerland

This box presents two initiatives underscoring the growing recognition of the importance of social and emotional learning in vocational education and training.

Socially competent – dually trained (*Sozial kompetent – dual ausgebildet*) – Germany

The *Socially competent – dually trained* programme was launched by the German Federal Ministry for Economic Affairs and Energy (BMWi) to enhance social and emotional competencies within Germany's dual VET system. This programme funded innovative projects designed to strengthen social skills among both apprentices and trainers. The initiative recognised the importance of competencies such as teamwork, communication and adaptability in preparing individuals for the complexities of modern workplaces. By integrating these skills into the dual VET framework, the programme sought to ensure that graduates are not only technically proficient but also equipped with the interpersonal skills necessary for success in their careers.

Development of socio-emotional skills amongst VET school teachers: pilot project supporting 21st century skills – Switzerland

In Switzerland, the Swiss Federal University for Vocational Education and Training (SFUVET) initiated a pilot project focused on developing socio-emotional skills among VET school teachers. Recognising the challenges posed by rapid changes in the labour market and the increasing demand for adaptability, the project aimed to equip educators with skills such as stress management, resilience and emotional intelligence. By enhancing teachers' socio-emotional competencies, the project sought to improve their well-being and effectiveness in the classroom, thereby fostering a positive learning environment for students. The initiative also aimed to integrate these competencies into teacher accreditation courses, ensuring that VET educators are well-prepared to meet the evolving needs of both learners and the world of work.

Source: See <https://www.bundeswirtschaftsministerium.de/Redaktion/DE/Publikationen/Ausbildung-und-Beruf/sozial-kompetent-dual-ausgebildet.html> and <https://www.sfuvet.swiss/research/projects/development-socio-emotional-skills-amongst-vet-school-teachers-pilot-project> (accessed 19 August 2025).

Key considerations

Supporting social and emotional learning in vocational and higher education is a crucial step for fostering the skills adults need to thrive in work, society and personal life. Building on emerging practices, several policy directions can support the systematic development of social and emotional skills in post-secondary institutions.

Policymakers should encourage institutions to adopt comprehensive frameworks that identify the social and emotional skills most relevant to adult learners. These frameworks need to be concrete enough to

guide programme design and assessment, while flexible enough to adapt to different disciplines, occupational pathways and learners' social and emotional profiles. The latter is especially important in light of evidence showing that social and emotional skills play a role in the selection into academic disciplines (see Chapters 2). Finally, linking SEL objectives to employers' needs can help institutions align their strategies with broader economic goals.

Strengthening capacity among educators and trainers is another critical step. Teachers and faculty in VET or higher education often lack explicit preparation for fostering social and emotional skills. Professional development programmes should therefore include guidance on how to embed SEL into academic and practical learning, while also equipping teachers with the tools, mentoring and ongoing support needed to implement these approaches effectively. At the same time, institutions should be supported in designing assessment tools that capture progress in SEL, enabling both learners and educators to reflect on growth and areas for improvement.

Fostering adults' social and emotional skills through non-formal learning

Non-formal learning activities are increasingly recognised as important avenues for developing social and emotional skills (Napierala, Carretero and Downes, 2020^[15]). These activities include intentional and institutionalised learning, such as community education programmes, workplace training, online courses, volunteer programmes and workshops offered by non-governmental organisations or local authorities. Many of these initiatives are shown to enhance skills such as communication, teamwork, leadership and resilience, even when their explicit focus is not on social and emotional skills development (see Napierala, Carretero and Downes (2020^[15]) for an overview).

A recent OECD report explored trends in adult learning participation and adult learning policy (OECD, 2025^[16]). It showed that participation rates have stagnated or decreased in most OECD countries over the past decade, while older adults, migrants, low-educated adults and those from lower educated families continue to participate at lower rates. At the same time, policies value lifelong learning as a key lever for promoting individual and societal well-being. Accordingly, many countries have attempted to expand access to adult learning through training leave policies, financial incentives for learners and employers, or measures that enhance the flexibility of provision.

The report shows that health and safety training dominate non-formal learning, while 9% of respondents report participating in learning activities focused on teamwork and leadership skills, 4% report learning communication and presentation skills, and less than 2% report participating in activities with a creative focus. However, the survey does not collect information on whether activities have an explicit SEL focus, and it remains unclear to what extent non-formal learning across the OECD actively targets SEL. In many cases, SEL is implicitly embedded within non-formal learning, as participants strengthen communication or leadership skills through collaborative tasks or community engagement. In other cases, countries adopt more explicit strategies to promote SEL through non-formal learning, developing structured curricula and dedicated training programmes. For example, Canada's "Skills for Success" model provides a national framework that incorporates SEL alongside foundational cognitive skills and builds dedicated courses and resources for adults based on this (see Box 5.3).

Key considerations

To strengthen the role of non-formal learning in fostering social and emotional skills, policy measures should aim to expand, formalise and integrate SEL across adult learning pathways. Governments and training providers could support the development of structured curricula or frameworks for non-formal adult learning that explicitly embed SEL, with clear learning objectives and progression steps. In addition, assessment tools and recognition mechanisms, such as micro-credentials or digital badges, can make

SEL achievements visible and valued by employers and the wider community. Policies should also ensure that programmes are accessible and inclusive, targeting low-educated adults, migrants and other groups at risk of exclusion. Promoting collaboration between educational institutions, employers and civil society organisations is key to ensuring the relevance of SEL in non-formal education for employability and social integration.

Box 5.3. Canada's Skills for Success model: Building social and emotional capacity for adults through non-formal training

Canada's *Skills for Success* initiative, led by Employment and Social Development Canada, constitutes a national framework designed to equip Canadians – especially job seekers – with foundational and transferable skills vital for success in work, education and life. The model defines nine essential skills that span cognitive, digital and social-emotional domains: reading, writing, numeracy, digital tools, communication, problem solving, collaboration, creativity and innovation, and adaptability.

In transitioning from its predecessor (the Essential Skills framework), Skills for Success has explicitly incorporated social and emotional competencies by introducing creativity, innovation and adaptability, and broadening definitions for communication (including non-verbal cues) and collaboration (encompassing inclusivity and respect).

To make the model actionable, the Government provides free assessment tools and learning resources: users can evaluate their skill levels and access workbooks and online modules to strengthen their skills across the areas of the Skills for Success model.

The model is also a foundation for funded projects under the Skills for Success programme. The programme provides funding to organisations, employers, provinces and territories to develop and test training and assessment tools. For instance:

- Initiatives like *Skills Quest 4 Success* focus on delivering interactive SEL training, particularly for persons with disabilities, addressing adaptability, creativity, collaboration and communication.
- Other projects, such as *Driver for Hire*, integrate SEL within industry-specific training, targeting collaboration, communication, problem-solving, adaptability and innovation for gig-economy workers.

Canada's Skills for Success model demonstrates how governments can mainstream SEL within employment and training initiatives, making these competencies explicit, supported by practical tools, and integrated into funded programmes for jobseekers. This approach combines skills clarity, accessibility, targeted support and scalability, offering a blueprint for embedding social and emotional skills into workforce development.

Source: See <https://www.canada.ca/en/services/jobs/training/initiatives/skills-success.html> (accessed 21 August 2025).

Supporting social and emotional learning among disadvantaged groups

Results of the 2023 Survey of Adult Skills show marked difference in social and emotional skills by gender, immigrant background, parental education, educational attainment and literacy proficiency in nearly all participating countries and economies (see Chapter 4). These findings highlight the need for targeted interventions to strengthen social and emotional learning among groups with lower skill levels in order to prevent that the uneven distribution of these skills reinforces existing inequalities in education and the

labour market. Across countries, policies and initiatives have sought to embed SEL into programmes targeting groups at risk of exclusion, including youth from low socio-economic backgrounds, migrants and refugees, the unemployed and adults with limited educational attainment.

Many education systems have introduced interventions in early childhood and primary education, recognising that disadvantaged children are often less likely to benefit from enriched home environments. For example, targeted pre-school programmes frequently include components that promote self-regulation, empathy and communication (Calhoun et al., 2020^[17]). In schools, mentoring, tutoring and extra-curricular activities often integrate SEL to help vulnerable learners develop confidence and persistence (Cipriano and McCarthy, 2023^[18]). In VET and higher education, tailored career guidance, counselling services and peer mentoring programmes have been adopted to support students from underrepresented groups (Helms et al., 2021^[19]). Employment and social services also play an important role, with active labour market programmes integrating SEL modules aimed at improving job readiness and interpersonal skills.

Gender differences in social and emotional skills add another dimension to such efforts. While women often score higher on measures of agreeableness and conscientiousness, men are more likely to demonstrate assertiveness and emotional stability. These differences can reinforce traditional gender roles and reinforce gender inequalities on the labour market. Some countries have begun to address gender difference in social and emotional skills through targeted measures. For example, some programmes integrate SEL into STEM education to encourage girls' participation and confidence in traditionally male-dominated fields.³ Other approaches include mentoring schemes, gender-sensitive teacher training and awareness campaigns designed to challenge implicit biases and create more inclusive learning environments (Brussino and McBrien, 2022^[20]; OECD, 2024^[21]).

Key considerations

Despite efforts to promote inclusive SEL, initiatives remain fragmented. Programmes are frequently short-term or project-based, and evaluation evidence is limited. To ensure equitable opportunities, policies need to move beyond isolated interventions and adopt a more comprehensive approach that embeds SEL in mainstream provision, while tailoring support to the specific challenges of different groups. Some policy options for targeted support for specific groups include:

Adults from low socio-economic backgrounds

To tackle socio-economic differences in social and emotional skills, policies should prioritise integrating SEL programmes into compulsory schooling, ensuring that all children, regardless of their socio-economic background, have an equal starting point in developing these essential competencies. Such programmes should create environments where disadvantaged learners are encouraged to take initiative, collaborate and be creative. This approach should be complemented by policies that continue to address inequalities beyond formal education, by supporting SEL development in vocational training, higher education and lifelong learning programmes.

Migrants and refugees

This report showed that, in the majority of countries and economies participating in the 2023 Survey of Adult Skills, migrants demonstrate, on average, higher levels of conscientiousness, agreeableness and openness to experience than native-born adults (see Chapter 4). However, in some countries, migrants are less emotionally stable and extraverted. In addition, findings of the survey indicate that migrants often lack strong literacy skills, which may negatively impact social and emotional skills related to communication (OECD, 2018^[22]). Policies can aim at embedding SEL into language learning and integration programmes,

equipping learners not only with linguistic skills but also with emotional intelligence, resilience and interpersonal skills.

Adults with limited educational attainment

The largest and most consistent differences in social and emotional skills observed in the 2023 Survey of Adult Skills are between adults with different levels of educational attainment, with low-educated adults demonstrating lower levels of agreeableness, conscientiousness, emotional stability, extraversion and openness to experience in most countries (see Chapter 4). These findings highlight the need for integrating SEL into adult education and training programmes, particularly those targeting adults without upper secondary qualifications. In addition, SEL modules can be incorporated into active labour market policies that support the unemployed, such as job-search assistance, counselling and upskilling programmes. Effective strategies should include targeted outreach, financial incentives and close cooperation between adult education providers, employment services and local employers to ensure that SEL development is relevant, accessible and aligned with labour market needs.

Addressing gender differences

The consistent gender differences across countries in the Big Five domains found in the 2023 Survey of Adult Skills and numerous other studies call for a dual policy approach to gender-inclusive SEL. Policies should promote equal opportunities for men and women to develop a broad set of social and emotional skills, while at the same time adapt educational, training and workplace environments to better accommodate and leverage diverse socio-emotional profiles. For example, in education, governments can integrate SEL into school curricula to encourage girls to build self-confidence, leadership and risk-taking skills, while also supporting boys in developing empathy, collaboration and emotional regulation. In the workplace, one can adapt structures by revising recruitment, promotion and performance evaluation systems so they account for a broader range of socio-emotional strengths instead of prioritising only traditionally “male-coded” skills like assertiveness or risk-taking.

Cultivating social and emotional skills at the workplace

Interest in cultivating social and emotional skills at work has grown steadily as organisations adapt to rapid technological change, new forms of work organisation and customer-facing service models (Mehler et al., 2024^[23]; Poláková et al., 2023^[24]). Many employers already embed elements of SEL into onboarding, customer service training and supervisor development. An OECD study investigated workplace training strategies in 100 enterprises across five European countries (OECD, 2021^[25]). It showed that courses in soft skills are the third most frequently offered training in firms, following training in technical, practical or job-related skills and training in health, safety and security. Such courses usually focus on communication and feedback, conflict management or co-operation in a team, leadership and management skills.

Public policy increasingly supports this shift by linking funding for adult learning to broader employability outcomes that incorporate transversal skills alongside technical upskilling. For instance, instruments that encourage participation in workplace training such as Individual Learning Accounts (ILAs) or training vouchers give learners freedom to choose courses, but governments often pre-approve eligible courses that align with national priorities. Increasingly, these approved courses include SEL-focused content (OECD, 2025^[26]). For example, France’s Compte Personnel de Formation (CPF) – personal training accounts that offer funds to employees to buy training offered by various providers – can fund courses in transversal skills, such as communication, teamwork and conflict management (CEDEFOP, 2023^[27]).

Some countries use national skills frameworks to make SEL explicit in workforce programmes. An example is Canada’s Skills for Success model described in Box 5.3. Another example is the U.S. Department of

Education's Employability Skills Framework, which defines essential social and emotional skills for employability (e.g. critical thinking, interpersonal skills) and provides implementation toolkits for providers.⁴ In addition, sectoral representatives and apprenticeship systems are also beginning to specify SEL outcomes in occupational standards (OECD, 2024^[28]). Formalising SEL in this way can encourage employers to pay more attention to the social and emotional skills development of their workers.

Yet provision remains uneven. Large firms are more likely to offer structured training than small and medium enterprises (SMEs) and training is often episodic rather than cumulative (EUROSTAT, 2020^[29]). Additional results by the OECD show that large firms are more likely to offer training in management skills than SMEs, while differences in the provision of teamwork-focused training are small (OECD, 2021^[25]). In addition, enterprises in the information and communication sector and the finance sector are more likely to offer training than enterprises in other industries (EUROSTAT, 2020^[29]).

Key considerations

Promoting social and emotional skills in the workplace requires embedding these competencies into broader workforce development and adult learning strategies. Governments can play a key role by making SEL an explicit outcome of publicly funded workforce programmes. This means that where governments subsidise training – for example, through ILAs, training vouchers or employer subsidies – they should require providers to state SEL objectives and align them to a recognised framework. Integrating SEL into qualification standards and competency models can also help ensure that social and emotional skills are recognised as core outcomes alongside technical skills.

At the same time, strengthening SEL provision requires targeted support to overcome structural barriers, particularly for SMEs, which often lack the resources or expertise to design training programmes. Governments can invest in the development of off-the-shelf SEL curricula, facilitator guides and digital toolkits that SMEs can easily adopt without incurring high costs. In addition, governments can support sectoral or cluster-based training initiatives that enable employers to share access to SEL-focused programmes while benefiting from economies of scale. Such collaborative approaches would make it more feasible for smaller firms to provide high-quality learning opportunities.

References

- 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>. [20]
- Calhoun, B. et al. (2020), "Social Emotional Learning Program Boosts Early Social and Behavioral Skills in Low-Income Urban Children", *Frontiers in Psychology*, Vol. 11, <https://doi.org/10.3389/fpsyg.2020.561196>. [17]
- CEDEFOP (2023), *France: securing personal training account scheme*, National news on VET, <https://www.cedefop.europa.eu/en/news/france-securing-personal-training-account-scheme> (accessed on 21 August 2025). [27]
- Cipriano, C. and M. McCarthy (2023), "Towards an inclusive social and emotional learning", *Social and Emotional Learning: Research, Practice, and Policy*, Vol. 2, p. 100008, <https://doi.org/10.1016/j.sel.2023.100008>. [18]

- Durlak, J., C. Domitrovich, and J. Mahoney (eds.) (2024), "SEL for Well-Being and Equity in Higher Education", in *Durlak, Joseph A. ; Domitrovich,, Celene E.; Mahoney, Joseph L. (ed.): Handbook of Social and Emotional Learning*. Guilford Press. [12]
- EUROSTAT (2020), *Statistics on continuing vocational training in enterprises*, Statistics Explained, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Statistics_on_continuing_vocational_training_in_enterprises (accessed on 21 August 2025). [29]
- Finnish National Agency for Education (2025), *Transversal competences in Finnish general upper secondary education*, <https://www.oph.fi/en/education-and-qualifications/transversal-competences-finnish-general-upper-secondary-education> (accessed on 16 August 2025). [2]
- Giammarco, M., S. Higham and M. McKean (2020), *The Future Is Social and Emotional: Evolving Skills Needs*, Ottawa: The Conference Board of Canada. [10]
- Helms, R. et al. (2021), "Benefits of an out-of-school time program on social-emotional learning among disadvantaged adolescent youth: A retrospective analysis", *Children and Youth Services Review*, Vol. 131, p. 106262, <https://doi.org/10.1016/j.childyouth.2021.106262>. [19]
- Jones, S. et al. (2018), *Preparing for Effective SEL Implementation*, Harvard Graduate School of Education, <https://wallacefoundation.org/sites/default/files/2023-09/Preparing-for-Effective-SEL-Implementation.pdf> (accessed on 17 August 2025). [7]
- Mehler, M. et al. (2024), "Training emotional competencies at the workplace: a systematic review and metaanalysis", *BMC Psychology*, Vol. 12/1, <https://doi.org/10.1186/s40359-024-02198-3>. [23]
- Napierala, J., S. Carretero and P. Downes (2020), *Developing social and emotional skills through non-formal learning*, Science for Policy Briefs of the Joint Reserach Centre of the European Commission. [15]
- OECD (2025), *Advancing Adult Skills through Individual Learning Accounts: A Step-by-Step Guide for Policymakers*, Getting Skills Right, OECD Publishing, Paris, <https://doi.org/10.1787/08e1bdaf-en>. [26]
- OECD (2025), *Trends in Adult Learning: New Data from the 2023 Survey of Adult Skills*, Getting Skills Right, OECD Publishing, Paris, <https://doi.org/10.1787/ec0624a6-en>. [16]
- OECD (2024), *Agile Occupational and Training Standards for Responsive Skills Policies*, Getting Skills Right, OECD Publishing, Paris, <https://doi.org/10.1787/bacb5e4a-en>. [28]
- OECD (2024), "How to Advance the Teaching and Assessment of Social and Emotional Skills", *OECD Education Spotlights*, No. 15, OECD Publishing, Paris, <https://doi.org/10.1787/21e9ed91-en>. [6]
- OECD (2024), *Nurturing Social and Emotional Learning Across the Globe: Findings from the OECD Survey on Social and Emotional Skills 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/32b647d0-en>. [21]
- OECD (2024), *Social and Emotional Skills for Better Lives: Findings from the OECD Survey on Social and Emotional Skills 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/35ca7b7c-en>. [3]

- OECD (2023), “Assessing, documenting, and recognising social and emotional skills in upper secondary education: An overview of practices, approaches, models, and strategies from OECD countries”, *OECD Education Policy Perspectives*, No. 84, OECD Publishing, Paris, <https://doi.org/10.1787/69c7abe6-en>. [4]
- OECD (2023), “Schools as hubs for social and emotional learning: Are schools and teachers ready?”, *OECD Education Spotlights*, No. 4, OECD Publishing, Paris, <https://doi.org/10.1787/f6d12db7-en>. [5]
- OECD (2021), *Training in Enterprises: New Evidence from 100 Case Studies*, Getting Skills Right, OECD Publishing, Paris, <https://doi.org/10.1787/7d63d210-en>. [25]
- OECD (2018), *Skills on the Move: Migrants in the Survey of Adult Skills*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264307353-en>. [22]
- Oliveira, S. et al. (2021), “Impacts of Social and Emotional Learning Interventions for Teachers on Teachers’ Outcomes: A Systematic Review With Meta-Analysis”, *Frontiers in Psychology*, Vol. 12, <https://doi.org/10.3389/fpsyg.2021.677217>. [8]
- Poláková, M. et al. (2023), “Soft skills and their importance in the labour market under the conditions of Industry 5.0”, *Heliyon*, Vol. 9/8, p. e18670, <https://doi.org/10.1016/j.heliyon.2023.e18670>. [24]
- Rácz, A. and E. Mc Donnell (2015), *SELVET: Social and Emotional Learning in Vocational Education and Training*, Technical Report. [14]
- Roberts, B. et al. (2017), “A systematic review of personality trait change through intervention.”, *Psychological Bulletin*, Vol. 143/2, pp. 117-141, <https://doi.org/10.1037/bul0000088>. [9]
- Sauli, F., M. Wenger and M. Fiori (2022), “Emotional competences in vocational education and training: state of the art and guidelines for interventions”, *Empirical Research in Vocational Education and Training*, Vol. 14/1, <https://doi.org/10.1186/s40461-022-00132-8>. [13]
- Steponavičius, M., C. Gress-Wright and A. Linzarini (2023), “Social and emotional skills: Latest evidence on teachability and impact on life outcomes”, *OECD Education Working Papers*, No. 304, OECD Publishing, Paris, <https://doi.org/10.1787/ba34f086-en>. [1]
- Walton, K. et al. (2021), “Multimethod Support for Using the Big Five Framework to Organize Social and Emotional Skills”, *Assessment*, Vol. 30/1, pp. 144-159, <https://doi.org/10.1177/10731911211045744>. [11]

Notes

¹ See <https://www.weforum.org/stories/2016/03/21st-century-skills-future-jobs-students/> (accessed 28 February 2025).

² See <https://www.washington.edu/uaa/resilience-lab/> (accessed 19 August 2025).


³ Examples include Teen Turn in Ireland (see <https://teen-turn.com/>, accessed 19 August 2025) and Women STEM Up (see <https://women-stem-up.eu/>, accessed 19 August 2025).

⁴ See <https://lincs.ed.gov/state-resources/federal-initiatives/employability-skills-framework> (accessed 21 August 2025).

Annex A. Additional results

Table A A.1. Additional tables for Chapters 2, 3 and 4

WEB	Table A.2.1	Relationship between Big Five facets and years of education attained
WEB	Table A.2.2	Relationship between Big Five facets and entry and graduation in STEM-fields
WEB	Table A.2.3	Relationship between Big Five facets and participation in non-formal learning
WEB	Table A.2.4	Relationship between the Big Five domains and numeracy proficiency
WEB	Table A.2.5	Relationship between the Big Five domains and proficiency in adaptive problem solving
WEB	Table A.2.6	Relationship between Big Five facets and literacy proficiency
WEB	Table A.2.7	Relationship between Big Five facets and numeracy proficiency
WEB	Table A.2.8	Relationship between Big Five facets and proficiency in adaptive problem solving
WEB	Table A.2.9	Relationship between the Big Five domains and use of numeracy at work and in everyday life
WEB	Table A.2.10	Relationship between the Big Five domains and use of problem solving at work
WEB	Table A.3.1	Relationship between Big Five facets and the likelihood of being employed (versus unemployed or inactive)
WEB	Table A.3.2	Relationship between Big Five facets and the likelihood of being active in the labour market (versus being out of the labour force)
WEB	Table A.3.3	Relationship between Big Five facets and the likelihood of being employed (versus unemployed)
WEB	Table A.3.4	Relationship between the Big Five domains and the likelihood of being active in the labour market (versus being out of the labour force)
WEB	Table A.3.5	Relationship between the Big Five domains and the likelihood of being employed (versus unemployed)
WEB	Table A.3.6	Relationship between Big Five facets and wages
WEB	Table A.4.1	Differences in Big Five facets by gender
WEB	Table A.4.2	Differences in Big Five facets between adults with highly and lower-educated parents
WEB	Table A.4.3	Differences in the Big Five domains between adults with tertiary education and adults with upper-secondary education

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Skills that Matter for Success and Well-being in Adulthood

Evidence on Adults' Social and Emotional Skills from the 2023 Survey of Adult Skills

The Survey of Adult Skills provides insights into the information-processing skills needed for effective participation in the labour market and society. The 2023 cycle expanded its scope to include measures of social and emotional skills – agreeableness, conscientiousness, emotional stability, extraversion and openness to new experiences – offering a more comprehensive perspective on the skills adults need to thrive in a rapidly changing world.

This report examines how social and emotional skills are distributed across the adult population, and how they influence key life outcomes beyond the impact of the cognitive skills measured in the survey, such as literacy. The results highlight the importance of social and emotional skills in shaping adults' success in work and life. While cognitive skills remain key determinants of labour market outcomes, social and emotional skills independently contribute to employment, wages and job satisfaction. They are also positively related to educational attainment, health, well-being and civic participation. Moreover, these skills vary across socio-demographic groups, including differences by age, gender, parental education and immigrant background. Drawing on this evidence, the report discusses policy options to promote social and emotional learning throughout the life course, emphasising its value in supporting adults as workers, learners and active citizens.



PRINT ISBN 978-92-64-80272-8
PDF ISBN 978-92-64-58969-8



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