

OECD Education Working Papers No. 119

The educational roots of trust

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https://dx.doi.org/10.1787/5js1kv85dfvd-en

OECD

Unclassified **EDU/WKP(2015)8**

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development **21-May-2015**

English - Or. English

DIRECTORATE FOR EDUCATION AND SKILLS

EDU/WKP(2015)8
Unclassified

THE EDUCATIONAL ROOTS OF TRUST

Educational Working Paper No. 119

By Francesca Borgonovi and Tracey Burns

This paper is a contribution to the broader OECD project on New Approaches to Economic Challenges (NAEC).

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JT03376896

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ABSTRACT

Trust is important for social and economic well-being, for enhancing social cohesion and strengthening resilience, and for maintaining security and order in our societies. Trust is the foundation upon which social capital is built and it also is intimately related to human capital. This work examines the association between education and levels of interpersonal trust, using data from the OECD's Survey of Adult Skills (PIAAC). Our analysis demonstrated that education strengthens the cognitive and analytical capacities needed to develop, maintain, and (perhaps) restore trust in both close relationships as well as in anonymous others. It does so both directly, through building and reinforcing literacy and numeracy in individuals, and indirectly, through facilitating habits and reinforcing behaviours such as reading and writing at home and at work. Education and trust are thus fundamentally intertwined and dependent on each other. While all countries across the OECD have been striving to improve their education systems in terms of student achievement levels, this analysis suggests that there are also concrete elements that could be usefully addressed in order to reinforce and strengthen trust.

RÉSUMÉ

La confiance est un élément important du bien-être social et économique, qui permet de renforcer la cohésion sociale et la résilience tout en maintenant la sécurité et l'ordre dans nos sociétés. La confiance est le fondement sur lequel repose le capital social et elle est également liée intimement au capital humain. Ces travaux ont pour objectif d'examiner le rapport entre l'éducation et les niveaux de confiance interpersonnelle, grâce aux données de l'étude de l'OCDE intitulée Programme pour l'évaluation internationale des adultes (PIAAC). Notre analyse a démontré que l'éducation renforçait les capacités cognitives et analytiques nécessaires au développement, au maintien et (éventuellement) à la restauration de la confiance, à la fois dans les relations avec les proches et dans les relations avec le reste du monde. Elle le fait directement, en inculquant et en renforçant l'apprentissage en lecture, écriture et calcul de chacun et aussi indirectement, en facilitant l'accès et en incitant à la lecture et à l'écriture aussi bien à la maison que sur le lieu de travail. De ce fait, éducation et confiance sont intimement liés et interdépendantes. S'il est vrai que tous les pays de l'OCDE se sont efforcés d'améliorer leurs systèmes éducatifs en termes de niveaux de réussite des élèves, cette analyse montre qu'il existe aussi des éléments concrets qui peuvent être efficacement utilisés pour asseoir et renforcer la confiance.

ACKNOWLEDGEMENTS

This paper is one half of a two-paper set that looks at issues around trust and education using the PIAAC data set.

The authors would like to thank Lucie Cerna, Stuart Elliot, William Thorn, and Dirk Van Damme of the OECD Secretariat for valuable feedback on drafts of this report. Special thanks also to Przemyslaw Biecek for early data mining of the PIAAC data set that helped shape some of the main research questions and analyses.

This report was authored by Francesca Borgonovi and Tracey Burns from the OECD Directorate for Education and Skills. Editorial support and document preparation was provided by Leonora Lynch-Stein.

Introduction

In the aftermath of the 2008 financial crisis, governments across the OECD and indeed the OECD itself set out to try and assess the root causes of the financial crisis and how similar events could be avoided in the future. At the same time, there was a recognition that the crisis had far-reaching and long-term effects, not just on financial markets, but also on citizen well-being and confidence in institutions. Bailouts of large banks with public monies coupled with dramatic cuts in social expenditure raised concerns about fairness, equity of sacrifice, and worries about the social contract. As governments continue to struggle to recover, the OECD has made it a priority to work on reinforcing the public's trust in government as well as understanding the key drivers of economic and social well-being.

Trust in government is important on a number of levels. Citizens with high levels of trust in government are more likely to comply with tax paying (Scholz and Lubell 1998) and be more supportive of government spending (Chanley et al. 2000; Hetherington 2004). Lower levels of trust in government are associated with reduced compliance with laws and regulations, reduced investor confidence and increased risk aversion. In addition to governments, trust in public institutions including banks is also important, and associated with greater financial stability and stronger corporate governance and regulation.

Yet despite this, and despite a wealth of multidisciplinary research literature on the subject, trust has received relatively little policy attention until recently. That has now changed, spurred initially by the recognition of the effect of the 2008 financial crisis on trust in governments and institutions. In the 2013 World Gallup Poll, for example, more than two-thirds of OECD countries reported a loss of confidence in government from 2007 to 2012, with the largest declines observed in countries such as Greece, Slovenia, Ireland, Spain, Belgium and Portugal. This trend was not uniform across all OECD countries: confidence in government increased in a number of countries including Israel and Switzerland (OECD 2013a). However the strength and extent of the decline, coupled with political and financial instability, was enough to focus the attention of policy makers on this issue.

An impressive amount of work has been launched, in the OECD and elsewhere, to address the challenge. Key principles to rebuilding trust in government and institutions include the reliability, responsiveness, and openness of governments and the governance process. These must be accompanied by better regulation, integrity and fairness, and inclusive policy making (OECD, 2015a). Work on integrity in public decision-making addresses issues of corruption and lobbying, and transparency (OECD, 2014b).

Reinforcing trust in government and institutions is fundamental, but it is only one element of the equation. People's trust in their fellow citizens, over and above their trust in institutions, has been repeatedly found to be vital for well-being and economic prosperity (Halliwell and Wang, 2011; OECD 2014a; Fukuyama, 1995; Knack and Keefer, 1997; Putnam, 1993; Inglehart, 1997). In societies with high levels of interpersonal trust, individuals can share new ideas and exchange information more easily. Because of this it is easier to reach a consensus out of different group interests, thus allowing for more efficient interactions (Ostrom, 1990; Putnam 1993, Tavits, 2006). Interpersonal trust is essential for social cohesion (French, 1941), as well as maintaining security and order in our societies (Longstaff, 2005). It is a basic element of positive social relationships (Cacioppo et al, 2011) and a building block for resilience (Grotberg, 1999). Resilience, and thus trust are essential components to recovering from extreme situations such as natural disasters and other crises (Carpenter et al, 2012). In short, interpersonal trust is inherently necessary for the continued existence and functioning of our societies and economies.

Additionally, although the lens of crisis has rightly pushed the issue to the top of policy agendas, there are a number of slower, long-term trends that also reinforce the importance of analysing trust from a policy perspective. Forecasts for earning inequality in most OECD countries and global environmental challenges and costs are all rising, at the same time as global growth is expected to decline (Braconier, Nicoletti, and

Westmore, 2014). Global trends in increasing urbanisation, threats to security and safety, increasing extremism and isolation, and even the rising number of individuals living in single person households could all affect the level of trust in our societies (OECD 2013b). Although further study of these interactions are beyond the scope of this paper, they serve as an important reminder that work on trust should remain on the policy agenda even after the urgency of the present crisis has passed.

In this paper we extend the OECD work on institutional trust to look at the links between interpersonal trust and education and skills. We argue that education is important in the development and maintenance of trust both directly, through improving cognitive skills and aptitudes, and indirectly, through reinforcing behaviours and expectations. We use data from the OECD's Survey of Adult Skills (PIAAC) which contains rich information not only on self-reported levels of trust but also information on cognitive skills – literacy, numeracy and problem solving in a technology rich environment.

This paper is half of a two-part series that looks at education, trust, and political efficacy through analysis of PIAAC data. The twin to this paper focuses on institutional trust and political efficacy and its relationship to education and skills. That work can be found in (Burns and Borgonovi, forthcoming).

The paper at hand proceeds as follows: we first situate the importance in trust in terms of a why it is imperative for research and policy purposes, not just as a result of the financial crisis but also from a longer-term perspective. We define different types of trust and explain why each is important in our understanding of how our societies, institutions, and individuals function. We then analyse the PIAAC data and present our results. This is followed by a discussion, which summarises the results and situates them in terms of the theoretical arguments examined and explored. The paper ends with a conclusion that connects the research and analyses to current policy issues facing OECD education systems today.

Defining trust

The data reported above and those used to analyse trust in other domains go beyond the trust in institutions and government that is the focus of much the work on corporate governance, consumer policy, tax compliance, and anti-corruption measures. Trust can and should be defined more broadly, including the dimensions of trust in our peers and others that constitutes the foundation for social interactions and interpersonal relationships.

Trust means many things to many different people. It is contextually dependent, and can be an attitude, intention, belief, expectancy, behaviour, and more (McKnight et al, 2001). Trust can be defined as a '*willingness to be vulnerable based on the confidence that the other party is benevolent, reliable, competent, honest and open*' (Hoy and Tschannen-Moran, 1999: 189). The research literature distinguishes two main types: ***interpersonal trust***, which can be further distinguished between personalised and general/social trust, and ***trust in institutions*** (Luhman, 1979; Mcknight and Chervany, 2001; see Cerna (2014) for a full review).

Table 1. Forms of trust

Interpersonal trust		Institutional trust
Personalised	*Generalised/social*	
Face-to-face interactions Based on reputation	Trust towards strangers No direct information about people	Trust in institutions
Trust in family, friends, colleagues	Trust in other citizens	Trust in government, public sectors (police, schools, courts)

Source: adapted from Cerna (2014)

Interpersonal trust

Personalised trust arises from direct personal contact and is directed towards individuals and peers who share a dense web of relations and have grown common interests, purposes and visions. Personalised trust develops in groups where there is solidarity and reciprocity, where social controls are strong (Gambetta, 1988; Portes and Landolt, 1996; Portes and Sensenbrenner, 1993, and it is relatively easy to sanction misbehaving fellow community members (Axelrod, 1990). Because humans tend to form homogeneous groups (McPherson et al., 2001) and to define in-group identity from the separation with other groups – *"we are what we are because they are not what we are"* (Tajfel and Turner, 1979) – personalised trust is at the basis of the development of bonding social capital[1] (Putnam, 2000). Personalised trust would be most likely found between family members and close friends. An example of personalised trust is the reassuring thought that friends and family are ready to help in times of need.

Generalised/social trust develops out of a general feeling of goodwill towards *others*, where these *others* are intentionally not defined and qualified: these are *anonymous others*. While personalised trust arises from direct and repeated positive social relations, this element of interpersonal trust corresponds to an *"indiscriminate belief in the general benevolence of one's fellow citizen"* (Sturgis et al., 2010) and the "*expectation that other members of the community will behave in a cooperative and honest way"* (Fukuyama, 1995). To trust *others* is to believe that strangers will not knowingly hurt us and will consider our well-being when acting (Barber, 1983; Hardin, 2006). This kind of trust is the fundamental ingredient that enables the development of bridging social capital (Putnam, 2000). An example is the belief that strangers would generally be willing to return a lost wallet, or to give honest directions if you are lost on the street.

There is an inherent tension between personalised trust and generalised/social trust: positive in-group experiences and positive in-group identification can promote a general positive attitude towards anonymous others (Bowlby, 1973; Ainsworth et al, 1978). However a strong in-group identity may also inhibit the development of generalised trust (LaPorta et al., 1997; Delhy and Newton, 2005). Examples of this are criminal gangs and factions based on ethnic or political lines, which can promote exclusionary practices based on distrust and intolerance. In these cases strong group connections (Putnam's bonding social capital) can lead to higher levels of distrust and a reluctance to interact with those anonymous others, precisely because they are not part of the in-group.

The quantitative difference of how wide the ***radius of trust*** is – with personalised trust having a narrow radius and generalised/social trust having a wide radius of trust – becomes a qualitative difference

[1] Putnam (2000) distinguishes between bonding social capital (social networks between homogenous groups, e.g., a church-based reading group or members of the same family) and bridging social capital (social networks between socially heterogeneous groups such as those created by the civil rights movement in the USA).

that enables societies where individuals trust *anonymous others* to be able to function differently (Fukuyama, 2000). Generalised trust in anonymous others is a key ingredient for the well-functioning of complex societies that involve countless daily interactions between individuals who are not familiar with each other and differ along many readily observable characteristics (Nannestad 2008; Newton, 2007). Unless individuals trust anonymous others they will not be able to create groups and maintain networks between heterogeneous groups. This distinction between personalised and generalised trust is important not just theoretically but also empirically, and will be developed throughout the rest of the paper.

In societies with high levels of interpersonal trust individuals can share new ideas and exchange information, not just with their families and friends, but also with citizens very different from themselves. In these societies it is easier to reach a consensus out of different group interests. Interpersonal trust thus enables individuals in social and economic environments to efficiently interact with each other and overcome collective action problems, for example, deciding where a new power station should be built or how to draw electoral boundaries (Ostrom, 1990; Putnam, 1993, Tavits, 2006). Empirical work confirms that interpersonal trust can be an important social and economic resource: interpersonal trust is associated with economic development and functioning democratic institutions (Fukuyama, 1995; Knack and Keefer, 1997; Putnam, 1993; Inglehart, 1997).

Institutional trust

Institutional trust is equated with the belief in the quality, completeness and fairness of public institutions (for example, the parliament, the national military, and the like). It is important to our societies: citizens with high levels of trust in government are more likely to comply with tax paying (Scholz and Lubell, 1998) and be more supportive of government spending (Chanley et al. 2000; Hetherington, 2004). As outlined above, we will look at institutional trust and political efficacy more closely in a companion paper (Burns and Borgonovi, forthcoming).

It should be noted that the categories of trust are to some extent intertwined. Although defined as distinct, in practice the connections between them – personalised, generalised, and even institutional – can become blurred (Lewicki et al, 2006). The categories of trust are also interrelated and affect each other - for example, dissatisfaction with the economy, political figures, and corruption, all contribute to lower levels of trust in government, but so do lower levels of interpersonal trust (Anderson and Tverdova, 2003; Brehm and Rahn, 1997; Chanley et al, 2000).

The relationship between trust and education

The social and economic importance of trust is widely acknowledged. Large differences exist both across countries and within countries in levels of self-reported interpersonal trust. Age, racial background, socio-economic status, gender and educational attainment are all factors that have been found to be importantly correlated with levels of trust (Putnam, 2000; Paxton, 2007; Alesina and La Ferrara, 2002; Brehm and Rahn, 1997; Merolla et al, 2013). Contextual factors such as levels of inequality and diversity can create an obstacle to or, inversely, promote the formation of trust (Alesina and La Ferrara, 2000; Hero, 2003; Putnam, 2000, Borgonovi, 2012).

Many approaches have been developed to examine the processes that govern the formation of trust. One is the cultural approach, which views trust as largely determined by socialisation processes such that children learn from their parents and their parents' parents the general notion that *anonymous others* will, in general, be positively predisposed (Uslaner 2008, pp. 52–54, 72–75; Stolle and Hooghe 2004; Putnam, 1993). Trust, following this line of thought, is an attitude, a mental schema through which we learn to perceive the world and as such is largely stable over an individual's life irrespective of particular experiences. Another is the experientialist approach, which conceptualises trust as the result of positive

social interactions and experiences: trust is built and destroyed over time as individual experiences change, as communities host more or less trustworthy individuals that do or do not foster the well-being of the communities they serve, lack transparency or are not open to relationships (Hardin, 2002; Bok, 1978). Other research points to the role of biological factors in determining levels of trust in a given context (Kosfeld et al, 2005; Merolla, 2013) as well as the role of genetics in determining predisposition to trust more generally (Sturgis, 2010). We argue that interpersonal trust formation is the result of all of these elements and arises out of socialisation processes, the interactions individuals develop, and the incentives they face. Education thus plays a fundamental role in these processes.

We maintain that education plays such a key role because it strengthens the cognitive and analytical capacities needed to develop, maintain, and (perhaps) restore trust in both close relationships as well as in anonymous others. Importantly, this process is served by both formal education systems and institutions and by learning throughout the lifespan, in families, communities, and informal learning arrangements that serve to build or reinforce skill sets. Education also plays a role in socialising children to a set of expectations about how *anonymous others* will act and their incentives and motives. Trust is rooted in culture and traditions and are deeply embedded in the customs, mores and habits that a particular society or community have developed: *"in short, it cannot be divorced from culture"* (Fukuyama, 1995). Education is the organised mean through which societies transmit and share such norms, customs and community spirit and, as such, understanding trust cannot be divorced from a study of schooling and education. It can also facilitate or reinforce habits such as reading, writing, and working in groups, all of which are related to perspective taking and empathy, precursors of trust.

High levels of interpersonal trust require individuals to have the cognitive capacity to understand that trusting anonymous others enables communities to solve collective action problems[2]. It also allows individuals to appreciate that co-operation with others, whether in formal or informal settings, is an opportunity to be explored rather than a threat and a challenge to their interests. This view conceives higher levels of interpersonal trust as related to individuals' capacity to decode information in their environment and make the most of available opportunities resulting from specific cognitive and/or psychosocial and emotional skills (OECD 2015b). This view does not discount the importance of cultural, environmental, or indeed biological bases of trust, but rather insists that any full understanding must also include cognition as an essential component of developing and maintaining trust.

Sturgis (2010) maintained that the development of interpersonal trust is *de facto* a problem solving activity which expresses people's capacity to evaluate the quality of interactions with others and adapt their behaviour according to environmental stimuli. We build on this insight and hypothesise that the development of trust is facilitated by the development of cognitive skills. It is possible for individuals to trust *anonymous others* because they know that they possess skills that will enable them to understand whether they can trust a *particular other* in a *particular encounter* at any *given time*.

Cognitive capacity is also important in terms of being able to classify and make sense of negative interactions. Individuals are not always consistent, and in any interaction (with peers or with strangers) there is a possibility that the exchange will not go the expected way, that is, the person or group does NOT behave in a trustworthy fashion. One of the most important aspects of maintaining trust is the ability to categorise and interpret these unexpected interactions: Is the person/group fundamentally not trustworthy? Or is this just a rare occurrence that should not affect the expectation of trust for this individual or this type of interaction? These judgements require the emotional and social skills to interpret behaviour and understand the intentions of others, as well as the cognitive capacity to make sense of these judgements.

[2] A situation in which group members as a whole gain when everyone does their share (e.g., picking up your litter to keep a park clean). However as this requires effort for each individual, it will only work if the majority of group members take part, otherwise there is little incentive to make the effort if no one else is.

The ability to make this distinction in an on-going fashion as more and more interactions are recorded is crucial to developing and maintaining mature relationships. Trust is therefore, at least in part, a cognitive system that organises and re-organises the memory of experienced social interactions and expectations about the intentions of others and the outcome of social relations to develop a notion of the world that guides behaviours, beliefs and emotional responses.

The issue of incentives is also an important one. Highly educated individuals may have more to gain from developing strong interpersonal trust, in the sense that they have potentially greater access to diverse networks which rely on such trust. Highly educated individuals may also have better insurance mechanisms to protect themselves from the negative consequences of misplaced trust granted to unworthy individuals or groups: they can engage in a "leap of trust" because they know that trusting others is the only possible mechanism to enhance their own well-being in the long term (Hollis, 1998).

In addition, highly educated individuals generally have a greater sense of autonomy and self-efficacy so that it becomes more natural for them to feel that they can work within communities and with individuals to their satisfaction. Educational investments can be argued to be an act of trust in the social system so that families who trust the system are more willing to encourage their children to invest in their human capital through education, although this assumes that all families have equal access to the resources needed to support these investments and demonstrate their trust. Educational attainment in this framework is therefore the expression of previous generations' levels of trust and as such substantively contributes to the intergenerational transmission of educational advantage. A serious question, then, is whether trust could be considered independently of advantage and used to break some of the systemic elements that contribute to relative inequality as outlined above. Or alternatively, is high trust related to higher economic and social advantage because the world is structured to work for those already well-off?

In a similar vein, education is also the main pathway for individuals to enter the labour market. As such it plays a role not only in preparing young people with the cognitive capacities that they need to succeed, but also with the behaviours and expectations that they will use to choose potential careers and areas of further study. It also – for better or worse – plays a role in socialising youngsters about the kinds of careers that may be more stereotypically acceptable for them (based on gender lines, for example). Different careers require different levels of autonomy and different levels of teamwork, and may thus also be related to trust in others – both personalised and generalised. Open questions include whether the level of trust is related to type of career choice – are individuals who have high trust more likely to choose a certain kind of career, for example, in the human and social sciences? Is trust related to occupational sorting?

In this paper we attempt to clarify the mechanisms that promote the development of interpersonal trust. We use data from the OECD's Survey of Adult Skills (PIAAC) which contains rich information not only on self-reported levels of interpersonal trust, but also information on cognitive skills – literacy, numeracy and problem solving in a technology rich environment – measured through a standardised computer-delivered test. In addition, the survey includes indicators on educational attainment, work status, income, labour market performance and detailed socio-demographic factors. The advantage of the use of an international dataset with comparable information on key variables of interest is that we can examine and link the micro level and macro processes that guide the development and consolidation of interpersonal trust.

Recent work on the PIAAC data set and social outcomes (including trust, volunteering, and good health) has reported some preliminary findings on the relationship between these variables and education and literacy level (OECD, 2014c). This analysis deepens this work both theoretically and in the addition of a number of variables, such as age, gender, intergenerational transmission of educational advantage, and occupational sorting. Although limited in the sense that these are snapshot data that only capture one

particular moment in an individual's life, the rich set of data available in PIAAC allow for a much more in-depth study of the issues laid out above than previous empirical analyses.

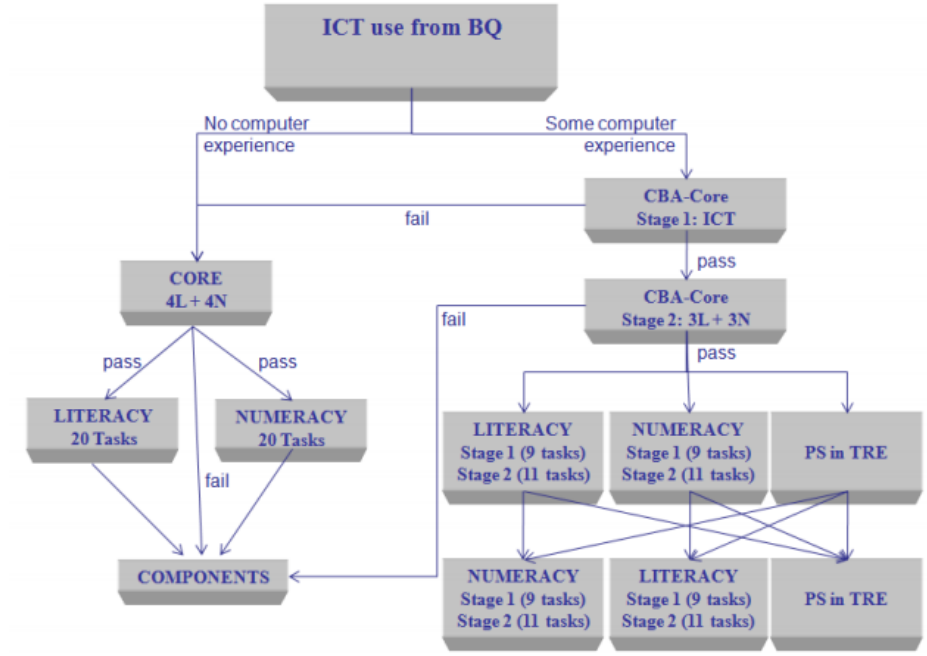
Data and methods

Data

We use data from the OECD's Survey of Adult Skills (PIAAC). Around 166 000 adults aged 16-65 were surveyed in the following 22 countries/national sub-regions: Australia, Austria, Belgium (Flanders), Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, the Netherlands, Norway, Poland, the Slovak Republic, Spain, Sweden, the United Kingdom (England and Northern Ireland), and the United States. Data collection took place from 1 August 2011 to 31 March 2012 in most participating countries although in Canada, data collection took place from November 2011 to June 2012 and in France it took place from September to November 2012. The target population for the survey was the non-institutionalised population, aged 16-65 years, residing in the country at the time of data collection, irrespective of nationality, citizenship or language status. The survey was administered in the official language or languages of each participating country and some countries gave respondents the possibility of participating in one of the widely spoken minority/regional languages (see OECD, 2013c for technical details). We consider separately the French and the English speaking communities of Canada and England and Northern Ireland because we want to allow for possible differences in levels of interpersonal and institutional trust that may have to do with the different cultural traditions and education systems in these communities to come up in analyses.

The Survey of Adult Skills has two main components: a background questionnaire and an assessment of literacy, numeracy and problem solving in a technology rich environment. The questionnaire was administered first in a CAPI format (computer assisted personal interviewing) and response time ranged from 30 minutes to 45 minutes. Upon completion of the questionnaire respondents sat a cognitive assessment which took around one hour to complete. Depending on their computer skills, the assessment was delivered either on a laptop computer or as a fill-in-paper booklet. Figure 1 illustrates the assessment design of the Survey of Adult Skills and the central role ICT skills play in the implementation of the Survey.

Figure 1. The Design of the OECD Survey of Adult Skills



Source OECD, 2013c

Measurements

The measurement of interpersonal trust has a long tradition in social research starting with the single item developed by Noelle-Neumann "Generally speaking, do you believe that most people can be trusted or can't you be too careful in dealing with people?" that was further developed by Rosenberg (1957) into a three-item scale separating a "radius of trust" dimension and a "being careful/misanthropy" dimension (Uslaner, 2011). While questions on interpersonal trust are widely used in comparative studies examining differences in trust across individuals and communities, some argue that the failure to specify in the question stem which "others" and which "people" may pose problems of comparability, particularly in cross-national research (Glaeser et al. 2000; Nannestad 2008; Reeskens and Hooghe, 2008; Helliwell and Putnam, 2004; Delhey, et al. 2011).

PIACC contains two indicators of interpersonal trust: the statements "there are only a few people you can trust completely" and "if you are not careful, other people will take advantage of you". Respondents could answer on a 5 point Likert scale ranging from "strongly agree", "agree", "neither agree nor disagree", "disagree" to "strongly disagree". Both questions examine individuals' beliefs about how they view others, but while the first is a pure indicator of how wide the radius of the trust is the second captures individuals' expected behavioural responses and beliefs about their need to be careful in their relationships with others. While individual responses to the two statements are generally positively correlated, the correlation varies across countries: in Japan the correlation coefficient is only 0.29 while in Italy it is as high as 0.66.

Because of the theoretical distinction between the two interpersonal trust dimensions and variability in the strength of the relationship between the two factors across countries, we analyse the two statements separately rather than collapsing them into one broad category. We dichotomise these variables so that for

each of the two statements a value of 0 groups individuals who strongly agree, agree and neither agree not disagree with the statement (no trust group) and a value of 1 characterises individuals who disagree or strongly disagree with the statement (trust group).

We measure the educational gradient in interpersonal trust through indicators of educational attainment and consider the difference in interpersonal trust between individuals who obtained lower secondary qualifications or less and *1)* individuals who obtained a lower secondary qualification; *2)* individuals who obtained an upper secondary degree; and *3)* individuals who obtained an academic tertiary degree. Because of the comparative nature of our study, academic qualifications from different countries and education systems were mapped onto the internationally comparable ISCED classification. The base group in all our analyses consists of individuals with ISCED level 1, 2 or 3C short), and include three dichotomous indicators to capture whether individuals obtained a lower secondary degree (ISCED level 3 or 4), an upper secondary degree (ISCED level 5b), or an academic tertiary degree (ISCED 5A or 6).

Cognitive ability is introduced using indicators of respondents' literacy and numeracy. The key independent variables that we use to build our analyses are respondents' achievement in the standardized PIAAC literacy, numeracy and problem solving skills in a technology rich environment. Achievement scores are based on IRT models and individuals' response patterns to specific questions in their assessment are used to impute plausible value scores of achievement in the complete assessment. PIAAC estimates for each respondent and for each assessment domain a set of ten plausible values, which can be used to assign to each respondent a probability estimate of their achievement on tasks at different levels of difficulty (OECD, 2013c). In the regression models, achievement measures are rescaled so that one unit is equal to 50 points, or the average standard deviation across OECD countries.

Control variables

Parental educational attainment is used as an indicator of socio-economic status of the family of origin and to test the hypothesis that the intergenerational transmission of educational advantage plays a role in fostering the development of both institutional and interpersonal trust. We introduce two dichotomous variables to indicate whether the respondents' father and mother attained tertiary qualifications (ISCED level 5 or 6). Gender was reported by the respondent and in all models we report the change in trust that is associated with being a woman. We control for the respondents' age through a series of dichotomous variables to indicate whether the respondent is between the age of 25 and 34; whether s/he is between the age of 35 and 44; whether s/he is between 45 and 54 or whether s/he is between 55 and 65.

Because the aim of the paper is to examine the role education plays in promoting interpersonal trust, individuals who are still in their formative years (i.e. who are between the ages of 16 and 24) are excluded from the set of analyses that attempt to explain within-country differences in levels of trust across different population subgroups because they may not have achieved their final level of educational qualifications. Moreover as one of the mechanisms that may be responsible for an education gradient in levels of interpersonal trust is occupational sorting, we exclude from analyses individuals who are not working at the time of the PIAAC assessment.

Results

Who trusts?

Between country differences

Figure 2 shows country level differences in the percentage of the adult population who report disagreeing or strongly disagreeing with the statements "there are only a few people you can trust completely" and "if you are not careful, other people will take advantage of you". Levels of interpersonal

trust are highest in Nordic countries: in Denmark, Norway, Sweden and Finland over one in three people between the age of 16 and 65 report disagreeing or strongly disagreeing that they can only trust a few people and that others will take advantage of them. By contrast less than one in 10 people in Estonia, the Slovak Republic, Italy and the Czech Republic report disagreeing or strongly disagreeing that they can only trust a few people and in France very low shares of the population disagree or strongly disagree to both statements. On average, around 2 in 10 people across PIAAC participating countries report trusting more than just a few people.

Figure 2. Between-country differences in levels of interpersonal trust

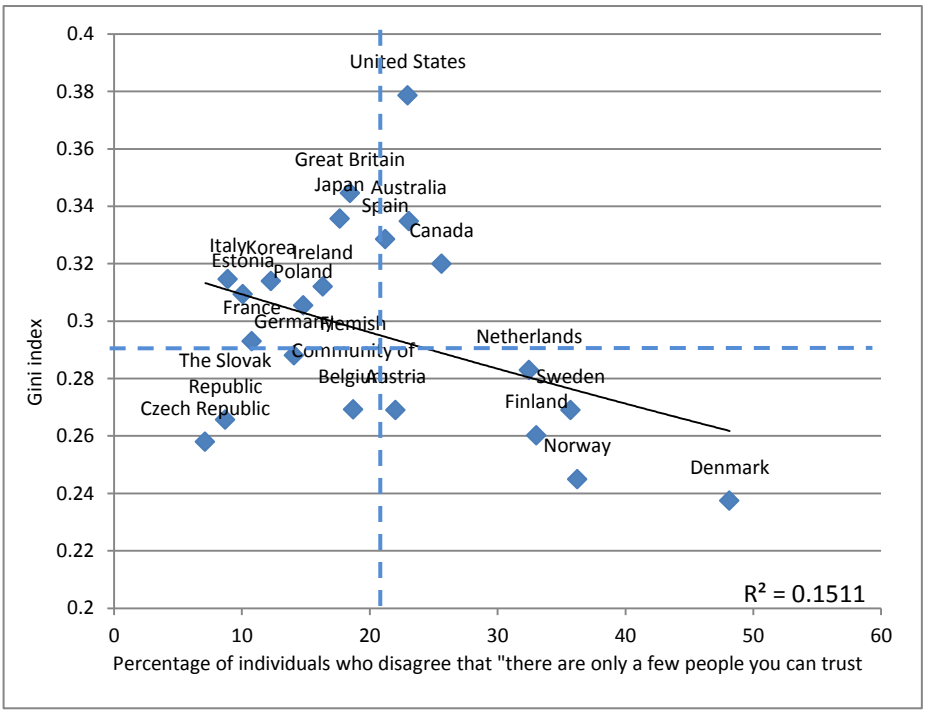
Above the average
At the same level of the average
Below the average

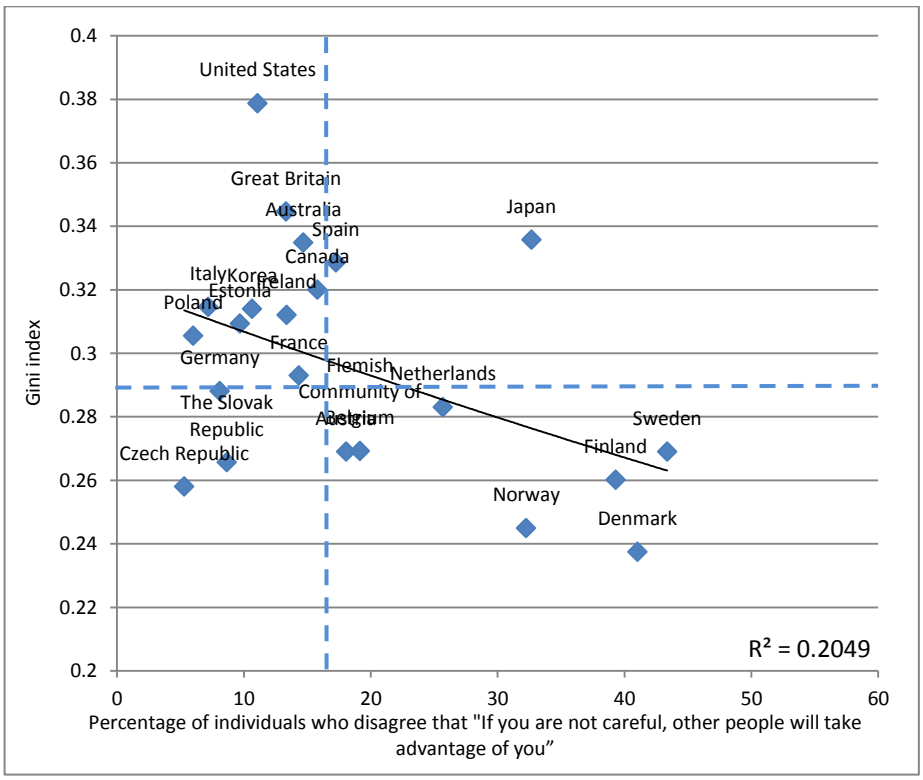
	Percentage of individuals who disagree or strongly disagree with the statement "there are only a few people you can trust completely"	Percentage of individuals who disagree or strongly disagree with the statement "If you are not careful, other people will take advantage of you"
Average	20.6	17.7
Denmark	44.9	38.4
Norway	34.0	30.0
Sweden	33.7	41.6
Finland	33.3	38.5
The Netherlands	31.4	24.8
French Speaking Community of Canada	26.5	19.8
English Speaking Community of Canada	24.6	14.5
Australia	23.0	14.1
The United States	22.3	10.9
Austria	22.2	17.9
Spain	21.3	16.8
England	18.7	13.0
Flemish Community of Belgium	18.5	18.8
Japan	18.2	32.9
Northern Ireland	16.2	10.3
Ireland	16.0	12.4
Poland	15.5	6.1
Germany	14.9	8.3
Korea	12.8	10.5
France	10.3	14.2
Estonia	9.7	9.4
The Slovak Republic	9.3	8.7
Italy	8.7	7.0
The Czech Republic	7.1	5.0

Source: PIAAC 2012 Database and Table A1.

Figures 3 and 4 illustrate the relationship between between-country differences in levels of interpersonal trust and two indicators of diversity of such countries: levels on income inequality and population diversity. The left panel of Figure 3 displays the relationship between the Gini index and the percentage of individuals who disagree or strongly disagree with the statement "there are only a few people you can trust completely" while the right panel of Figure 3 displays results for individuals who disagree or strongly disagree with the statement "If you are not careful, other people will take advantage of you". The Gini Index ranges between 0 and 1, where 0 represents perfect equality and 1 represents perfect inequality. Figure 4 presents similar associations for the two interpersonal trust indicators and the percentage of the population that is foreign born.

Figure 3. Country level relationships between income inequality and levels of interpersonal trust



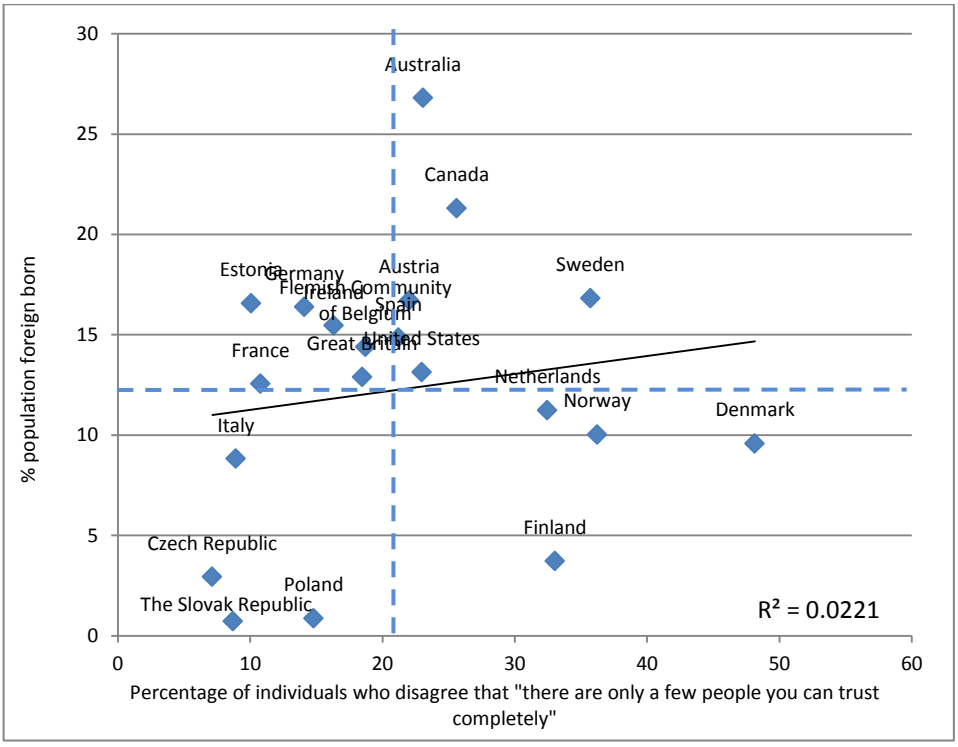


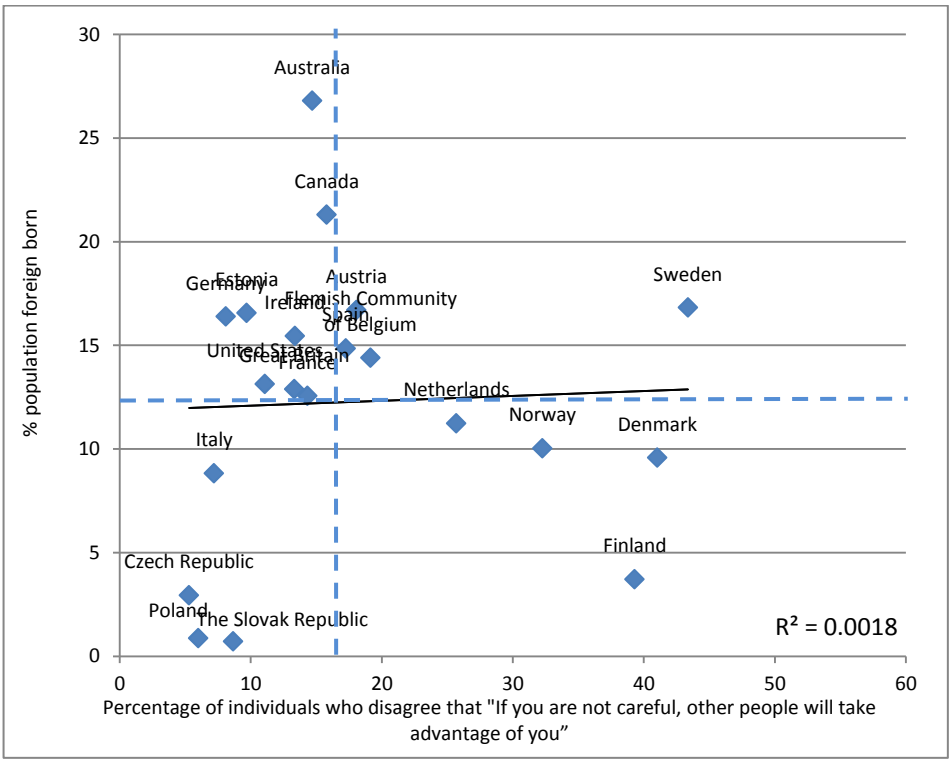
Source: PIAAC 2012 Database and OECD Income Distribution Database.

The results of Figure 3 are in line with previous empirical analyses conducted on a larger pool of countries on the negative association that exists between the development of interpersonal trust in large communities and diversity in incomes (Alesina and La Ferrara, 2000; Hero, 2003; Putnam, 2000). Nordic countries such as Denmark, Norway, Finland and Sweden are characterised by high levels of interpersonal trust and low levels of inequality. Countries such as Poland, Italy, France, Spain and Estonia are characterised by above levels of income inequality and lower levels of interpersonal trust.

On the other hand Figure 4 reveals little relationship between the percentage of the population that is foreign born and levels of interpersonal trust. In some countries with a high proportion of foreign born population (for example Sweden) individuals express high levels of interpersonal trust, while in many countries with very few migrants (Italy, the Czech Republic, the Slovak Republic and Poland) individuals express lower levels of trust.

Figure 4. Country level relationships between foreign born population and levels of interpersonal trust

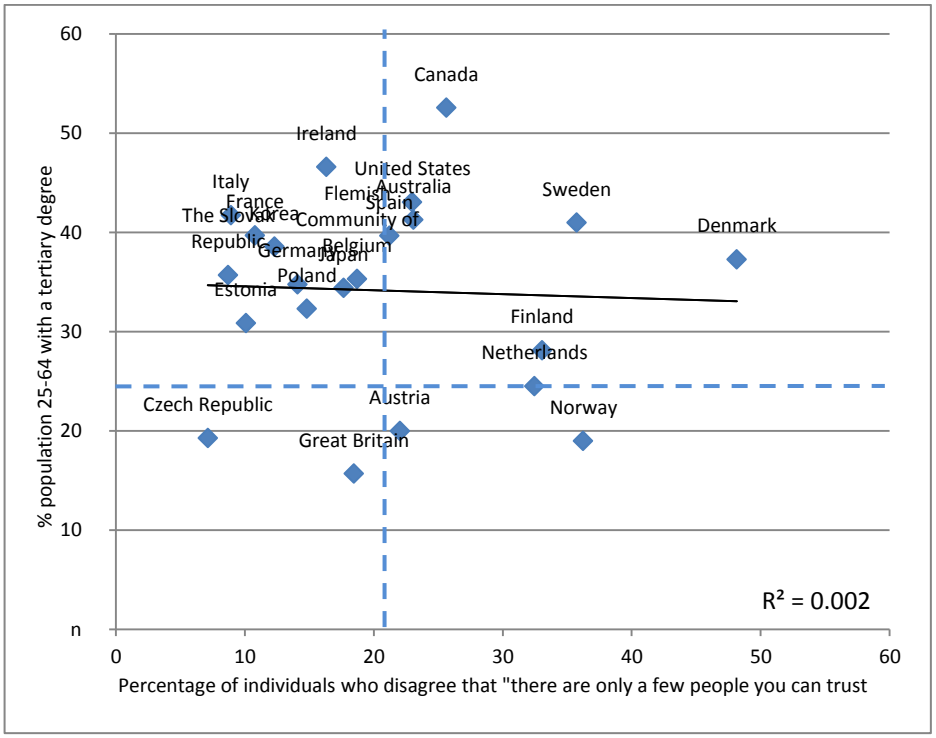


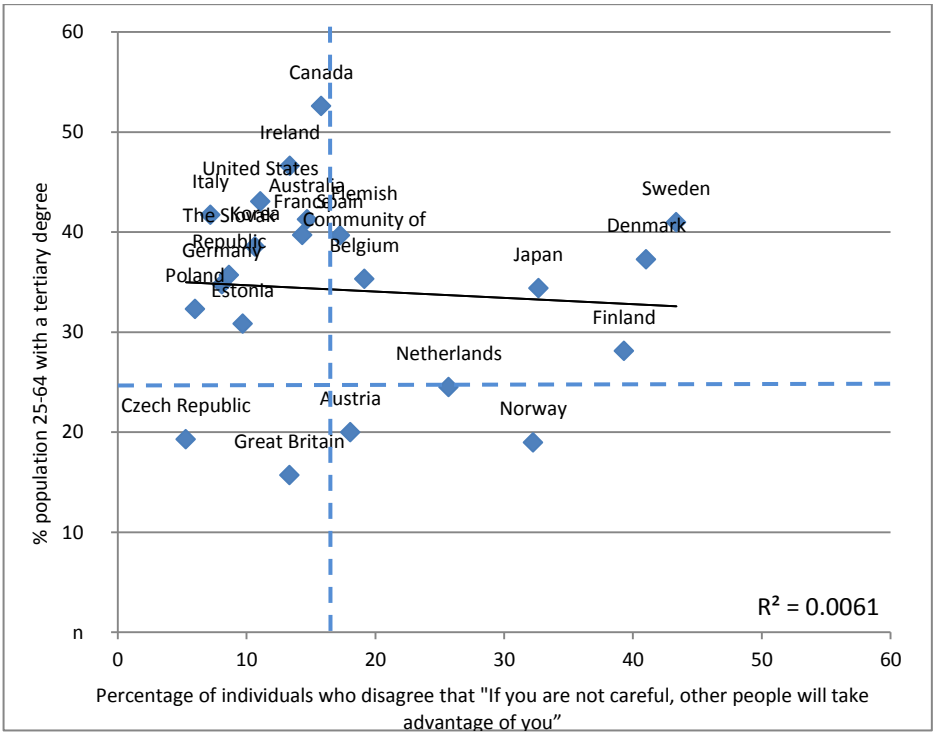


Source: PIAAC 2012 Database and OECD Migration Database.

Figure 5 suggests that, at the country level, there is little association between levels of interpersonal trust and the proportion of the adult population who has obtained a tertiary degree. *Prima facie* the results appear to indicate that there is little association between levels of interpersonal trust, a key indicator of social capital, and education, a key indicator of human capital. However, we argue that educational attainment is not a perfect indicator of human capital and that measures of skills can better reflect the strong association that exists between social and human capital.

Figure 5. Country level relationships between country level educational attainment and levels of interpersonal trust

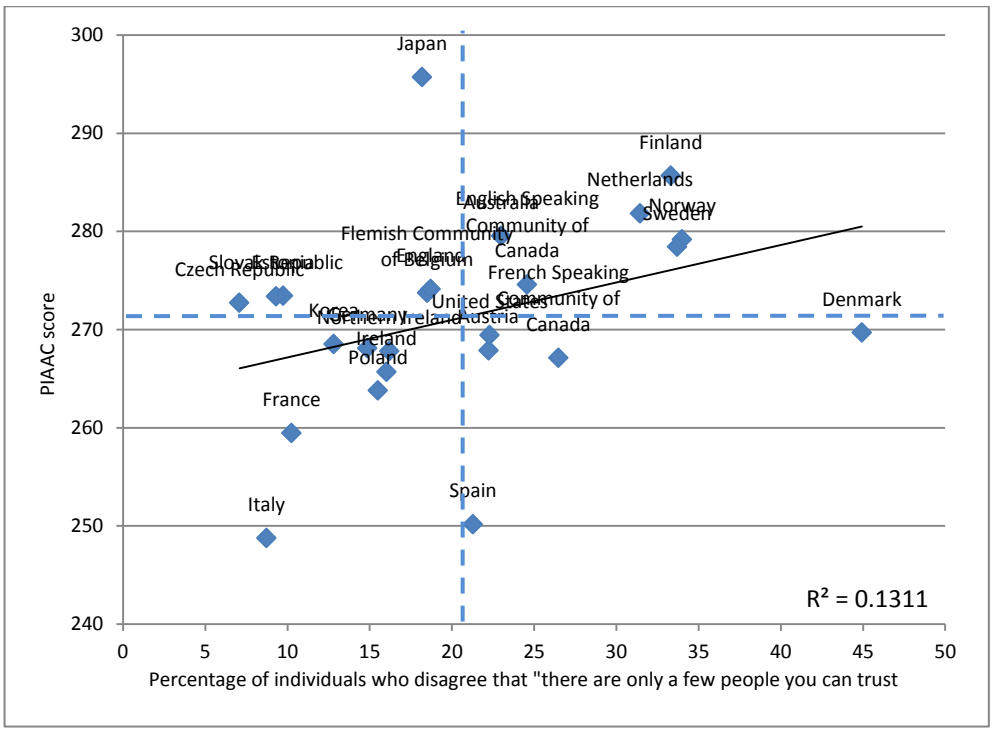


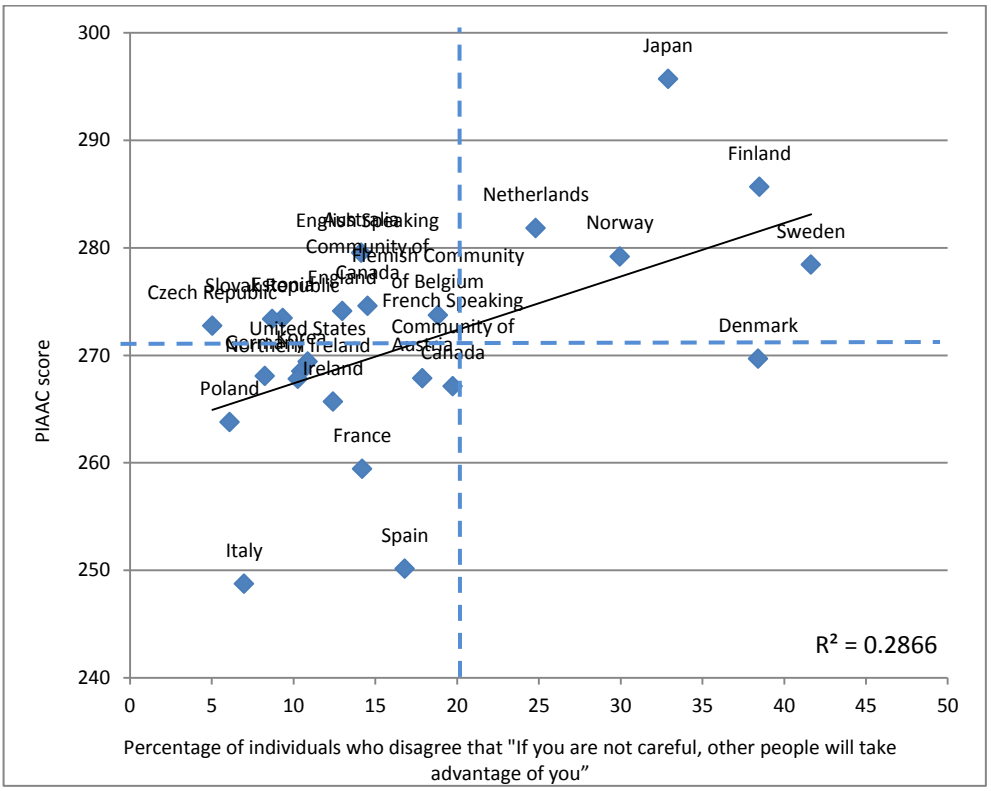


Source: PIAAC 2012 Database and OECD Education at a Glance, 2014.

Figure 6 confirms the tight connection that exists between social capital and human capital as measured by skills: countries that are successful in promoting skills acquisition also effectively demonstrate the greater interpersonal trust upon which social capital is built. For example, countries such as Finland, Denmark, Sweden and Norway have a comparative advantage not only in terms of cognitive dimensions such as literacy scores, but also in the level of interpersonal trust that permeates these societies. Countries such as Italy and Spain, on the other hand, have low average levels of cognitive proficiency and low levels of interpersonal trust. A strong relationship in levels of interpersonal trust and cognitive proficiency at the country level may be the result of institutional factors that are common precursors and determinants of both investments in human capital development and investments in social cohesion and community building such as, for example, levels of social mobility.

Figure 6. Country level relationships between literacy scores and levels of interpersonal trust





Source: PIAAC 2012 Database.

Within country differences by socio-economic and demographic characteristics

No general pattern emerges with respect to gender differences in levels of interpersonal trust: women tend to be more likely to disagree or strongly disagree that others will take advantage of them in 19 of the countries and communities participating in PIAAC and on average the gender gap corresponds to 4 percentage points for this measure. However no general picture emerges with respect to gender differences in reporting that there are only a few people one can trust completely (Table A2[3]).

When examining the full age spectrum covered in PIAAC, countries appear to vary widely in terms of age differentials in levels of interpersonal trust. Older cohorts appear to have an "advantage" in those countries with high mean levels of interpersonal trust although the trend is far from uniform: in Germany, Finland, Poland, Japan, the Slovak Republic and Korea younger cohorts are at least 5 percentage points more likely to report high mean levels of interpersonal trust (Table A3).

Between-country differences in age differentials in levels of interpersonal trust may be due to the different trajectories and experiences of people living in different countries and in different time periods. Poland, for example, experienced a number of political, social and economic transitions over the past 50 years that were so profound that made the circumstances of people who were born right after the end of WWII and people who were born close to the beginning of the new Millennium much more different than the circumstances that the same cohorts experienced in, for example, the United States. Because of its cross-sectional nature PIAAC cannot be used to decompose age and cohort effects, however large differences in educational attainment may be one of the factors that can help explain between country differences in the association between age and levels of interpersonal trust.

Among individuals aged 25 to 65, being in employment is positively associated with levels of interpersonal trust: on average, unemployed individuals are 8 percentage points less likely than individuals who are working at the time they participated in the Survey of Adult Skills to report disagreeing or strongly disagreeing that they can trust only a few people and 6 percentage points less likely to disagree or strongly disagree that if they are not careful, other people will take advantage of them. Similarly, individuals who are not in the labour force and are not looking for a job because of, for example, family responsibilities, health problems, are retired or are simply discouraged after unsuccessful job searches are, on average, 8 percentage points less likely than individuals who are working to report disagreeing or strongly disagreeing that they can trust only a few people and 4 percentage points less likely to disagree or strongly disagree that if they are not careful, other people will take advantage of them (Table A4).

While PIAAC suggests that being in employment is generally associated with higher levels of interpersonal trust, it also reveals a large degree of variation in the strength of this relationship across the countries and communities examined in the survey. For example, unemployed individuals in Norway, Sweden and the French speaking community of Canada are over 15 percentage points less likely to disagree or strongly disagree that they can trust only a few people than working individuals while in Korea, the United States, Estonia, the Slovak Republic, France, Australia and Germany PIAAC data does not reveal any association. Similarly, while in Norway and Denmark the unemployed are almost 20 percentage points less likely to disagree or strongly disagree that if they are not careful others will take advantage of them, there is no such relationship in Japan, Austria, the English speaking community of Canada, France, Ireland, Australia, Northern Ireland, the Czech Republic, Korea, Italy, the Flemish Community of Belgium, the Slovak Republic, and the United States.

[3] This and all further Tables can be found in Annex A.

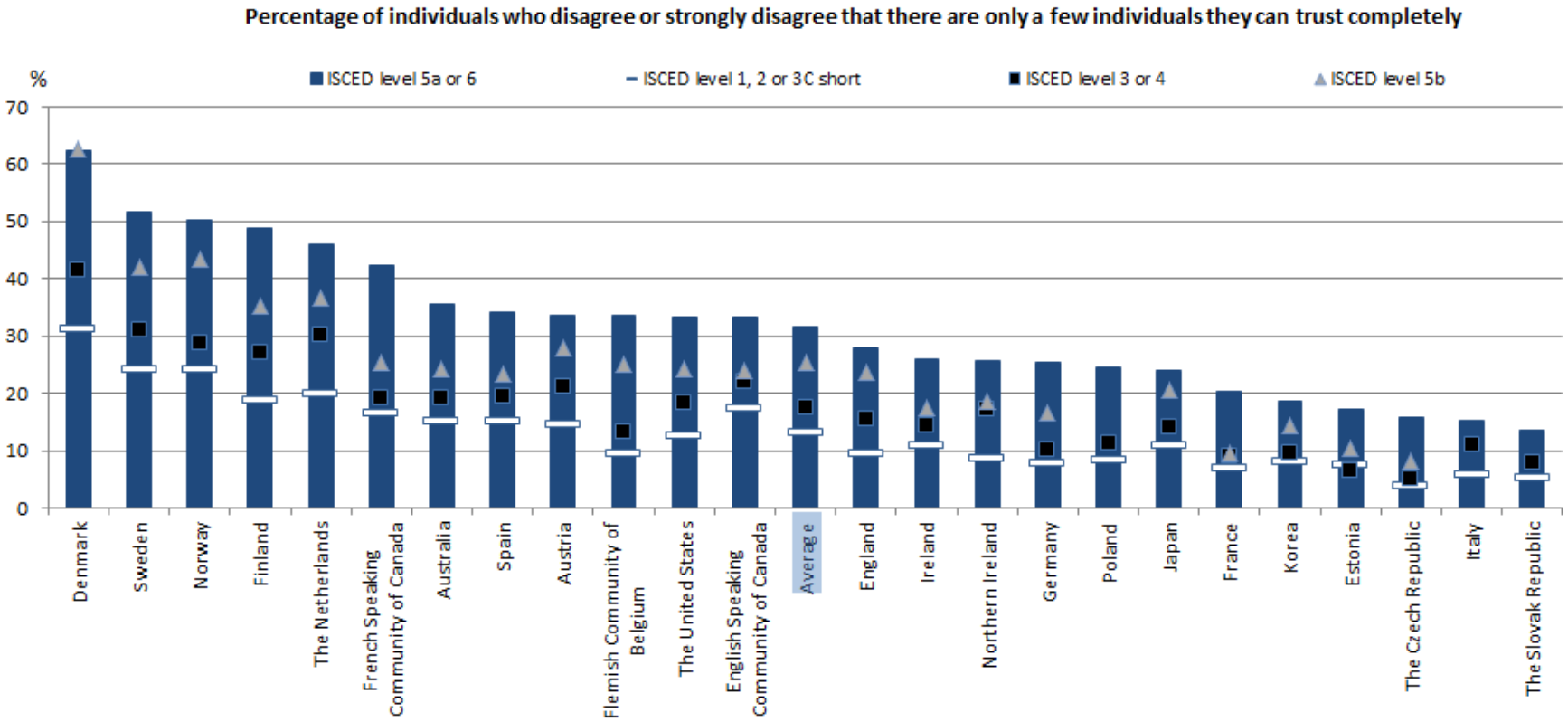
Within country differences by education

PIAAC data reveal that by and large, within country differences in both levels of interpersonal trust are mostly related to education, both in terms of individuals' own educational attainment and the educational attainment of the individuals' parents.

Results shown in Table A5 reveal that individuals whose parents did not obtain a tertiary degree are much less likely to disagree or strongly disagree that "there are only a few people you can trust completely" and that "if you are not careful, other people will take advantage of you". In every country or community with available data (with the important exception of Korea and Northern Ireland), individuals whose father or mother did not obtain a university degree are less likely to disagree or strongly disagree that they can trust only a few people. On average, across countries and communities participating in PIAAC, having a mother who obtained a tertiary degree is associated with a 4 percentage point increase in the probability that an individual will disagree or strongly disagree that "there are only a few people you can trust completely" and "if you are not careful, other people will take advantage of you". Similarly, having a father who obtained a tertiary degree is associated with a 6 percentage point higher probability of disagreeing or strongly disagreeing that they can trust only a few people and a 4 percentage point increase in the probability of disagreeing or strongly disagreeing that others will take advantage of them.

The education gradient in levels of interpersonal trust is large: university level graduates are more likely than individuals who only obtained lower-secondary qualifications or less to report disagreeing or strongly disagreeing that there are only a few individuals they can trust completely in all countries and communities participating in PIAAC. This difference is larger than 25 percentage points in Denmark, Sweden, Norway, Finland, the Netherlands and the French speaking community of Canada while it is lowest in Italy and the Slovak Republic, where it is less than 10 percentage points. The education gradient is generally progressive, with each extra qualification being associated with higher reported levels of interpersonal trust (Table A6).

Figure 7. The educational gradient in interpersonal trust: having a large radius of trust

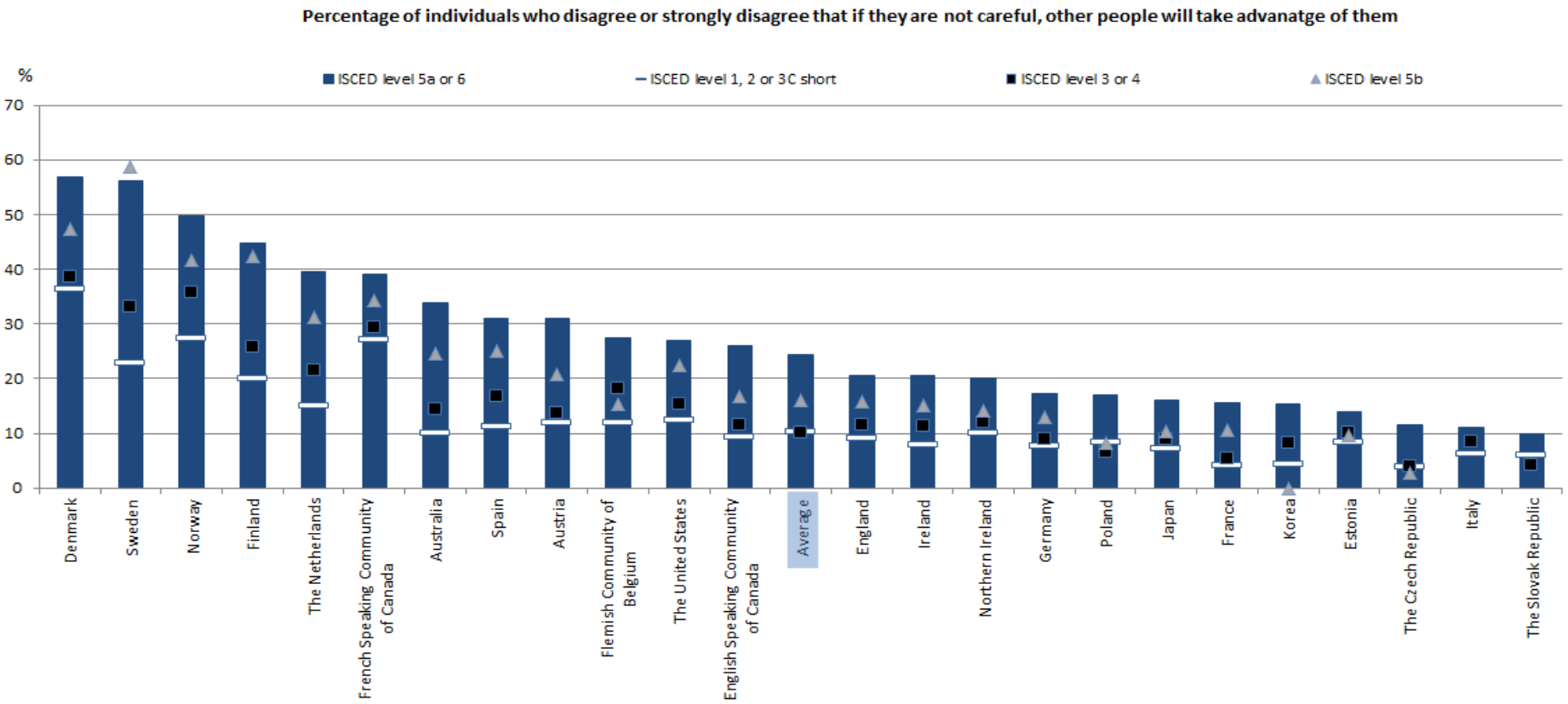


Note: Countries are ranked in descending order of the percentage of individuals 25-65 who report disagreeing or strongly disagreeing that there only a few individuals they can trust completely among university level graduates (ISCED 5a or 6).

The difference between the percentage of university graduates and indivisuals who did not achieve ISCED level 3 who disagree or strongly disagree with the statement is statistically significant ($p<0.05$) in all participating countries and communities.

Source: Table A6 in Annex A.

Figure 8. The educational gradient in interpersonal trust: being careful



Note: Countries are ranked in descending order of the percentage of individuals 25-65 who report disagreeing or strongly disagreeing that if they are not careful other people will take advantage of them among university level graduates (ISCED 5a or 6).

* The difference between the percentage of university graduates and individuals who did not achieve ISCED level 3 who disagree or strongly disagree with the statement is statistically significant ($p<0.05$) in all participating countries and communities.

Source: Table A6 in Annex A.

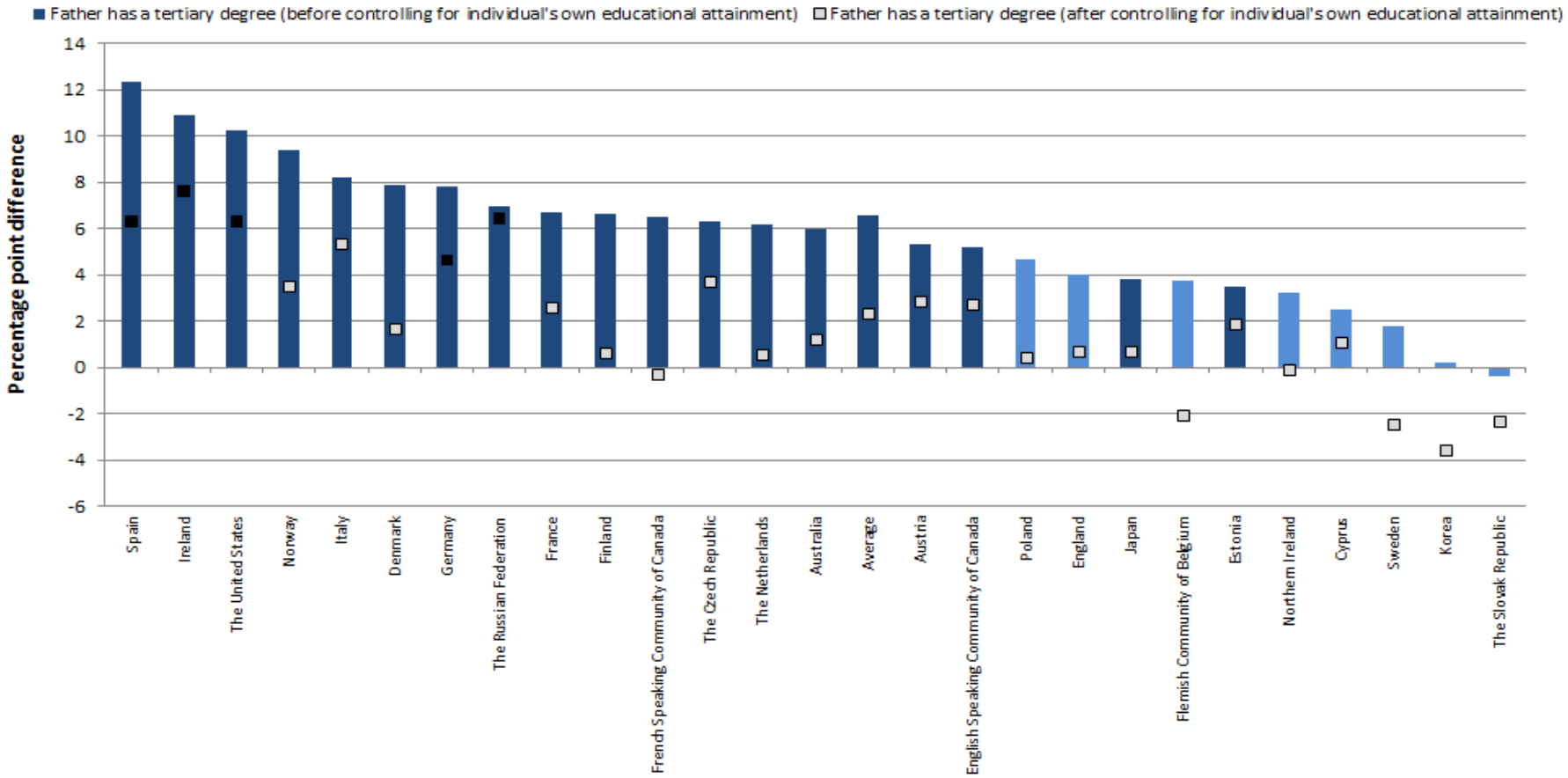
The role of education in explaining who trusts

The previous section suggests that levels of interpersonal trust are generally lower among individuals whose parents had low levels of educational attainment and that the educational attainment gradient is marked in almost all countries, with higher educational qualifications being positively associated with higher levels of interpersonal trust. In this section we focus our analyses on individuals who are 25 to 65 of age and are in the labour market at the time of the PIAAC assessment and examine whether the intergenerational transmission of an educational advantage may explain within-country disparities in levels of interpersonal trust.

Table A7 presents two sets of results: the first reports differentials in levels of interpersonal trust that are associated with individuals reporting that their father and their mother did not obtain a tertiary degree. The second reports the same figure but adjusting for the educational attainment obtained by the respondent. Results reveal that the primary mechanism through which parental education promotes interpersonal trust is by increasing the chances that children will achieve different levels of schooling. A wealth of studies documents how the intergenerational transmission of an educational advantage is a key factor shaping social mobility patterns and determining inequality and inequity (Currie and Moretti, 2003; Heineck and Riphahn, 2007). Evidence emerging from PIAAC now documents a substantial effect on levels of interpersonal trust. Across all countries and communities examined in PIAAC the "parental education effect" on levels of interpersonal trust decreases substantially when the respondent's own educational attainment is accounted for: in other words when comparing individuals who have the same level of educational attainment, parental education does not matter greatly in predicting how much these individuals will report trusting others. However, because parental education has a very strong effect on the educational attainment of individual respondents, and education, in turn, is a key correlate of trust, differences in where individuals come from often determine how likely they are to develop high levels of trust in others.

We observe a strong relationship between the probability that an individual will report disagreeing or strongly disagreeing that "there only a few people you can trust completely" and whether their father and mother obtained a tertiary degree and most of this relationship is explained by the higher probability of obtaining a tertiary degree of individuals whose parents obtained a tertiary degree. For example in Spain individuals whose father obtained a tertiary degree are 12 percentage points more likely to disagree or strongly disagree that they can only trust a few people. However, in Spain, among individuals with similar educational qualifications, this difference is 6 percentage points. Similarly, in Norway individuals whose father obtained a tertiary degree are 9 percentage points more likely to disagree or strongly disagree that they can only trust few people. However, in Norway, among individuals with similar educational qualifications, this difference is not statistically significant. Figure 9 shows the how important and relevant the intergenerational transmission of an educational advantage is in explaining levels of interpersonal trust (the figure maps the association for the radius of trust dimension, but results are similar for both dimensions).

Figure 9. The educational transmission of educational advantage



Note: Countries are ranked in descending order to the raw percentage point difference associated with having a father with a tertiary degree (before adjusting for individuals' own educational attainment) in the probability that an individual will report disagreeing or strongly disagreeing with the statement "there only a few people you can trust completely"

Only individuals who report currently working and are 25-65 years of age are considered in the analysis.

Source: PIAAC 2012 Database.

Why does education matter? The role of literacy, behaviour and occupational sorting

On average, across the countries and communities participating in the Survey of Adult Skills, a large share of within-country disparities in the percentage of adults reporting disagreeing or strongly disagreeing with the statement "there are only a few people you can trust completely" are due to differences in the formal qualifications obtained. Similarly, part of the within-country differentials in the percentage of adults reporting that they disagree or strongly disagree that "if you are not careful, other people will take advantage of you" are due to differences in educational attainment.

Previous sections suggest that educational attainment plays an important role in explaining socio-economic differentials in levels of interpersonal trust and, in fact, educational attainment is a key factor when trying to explain individual differences in these levels. In this section we attempt to analyse what mechanisms may be responsible for this effect. We argue that education plays an important role in the following ways:

- **Enhance cognitive skills** – Educational promotes the acquisition of literacy, numeracy and problem solving skills.

- **Socialisation processes** – Specific educational pathways may give individuals greater knowledge of, and insights into, how groups and communities operate.

- **Behavioural differences** – Educational attainment may promote habits such as reading and writing which exercise individuals' ability to empathise with others.

- **Occupational sorting** – Educational attainment may be associated with people entering different occupations where they have different levels of autonomy, different expectations and requirements about working with others and trusting others.

Tables A8a, A8b, A8c and Tables A9a, A9b and A9c present a set of results of models where we regress whether the respondent reports disagreeing or strongly disagreeing that there are only a few people they can trust completely (Table set A8) and that others will take advantage of them if they are not careful (Table set A9). The base model shows the educational gradient in levels of trust when controlling for age and gender. The second model shows the educational gradient when additionally controlling for literacy proficiency. The third model examines the association with working in occupations where individuals have to work in teams, the fourth model shows results when further controlling for reading and writing patterns, both at home and at work and the fifth and final model examines whether individuals who studied different subjects are more or less likely to report high levels of interpersonal trust.

Enhanced cognitive ability

The first mechanism through which education may promote interpersonal trust is the promotion of cognitive skills, such as enhanced literacy, numeracy and problem solving. Because of the high correlation between the three domains, we focus on literacy and examine whether literacy levels explain educational differentials in levels of interpersonal trust.

Results suggest that: *1)* increased cognitive skills is generally a very important mechanism through which education promotes levels of interpersonal trust, but *2)* a large share of the educational differentials cannot be accounted for by differences in literacy levels and *3)* countries differ widely in the extent to which literacy explains the origins of educational differentials in interpersonal trust.

On average, around half of the difference in the percentage of individuals with an upper secondary or a post-secondary non-tertiary degree and individuals who report lower secondary degree or less who report that they disagree or strongly disagree with the statement that there are only a few people that they can trust completely is explained by the greater literacy skills that are accompanied by greater schooling. Literacy explains around a third of the difference in levels of interpersonal trust between individuals with tertiary non-academic degrees and those who have lower-secondary degrees or less and around one quarter of the difference in levels of interpersonal trust between individuals with a university degree or more and those who have lower-secondary degrees or less (Tables A8a and A9a). In general, the role of cognitive skills in explaining within country educational gradients is particularly large among the less educated while it plays less of a role in explaining the higher levels of interpersonal trust that university level graduates report. This difference is particularly pronounced in Germany, the English and French speaking communities of Canada, Poland, Japan, the United States and Australia. No differential effect can be detected in Austria, Denmark, the Slovak Republic, Spain, Italy, Finland, Korea, the Flemish community of Belgium and Northern Ireland, while literacy skills play a more important role in explaining the educational gradient among the better educated in Estonia and the Czech Republic.

Skills use in the workplace

Employment, through income generation, promotes positive outcomes because it gives access to financial resources. However employment also has an important role to play in helping individuals create social connections and in enabling them to accomplish goals, to reach self-fulfilment and in promoting feelings of mastery, self-efficacy and personal worth. There is a large body of literature that documents the negative consequences of unemployment or unstable employment (OECD, 2014d). Education is not only an important buffer against unemployment and, particularly, long-term unemployment but also enables individuals to access different occupational paths that may build or require trust in others such as, for example, working in teams.

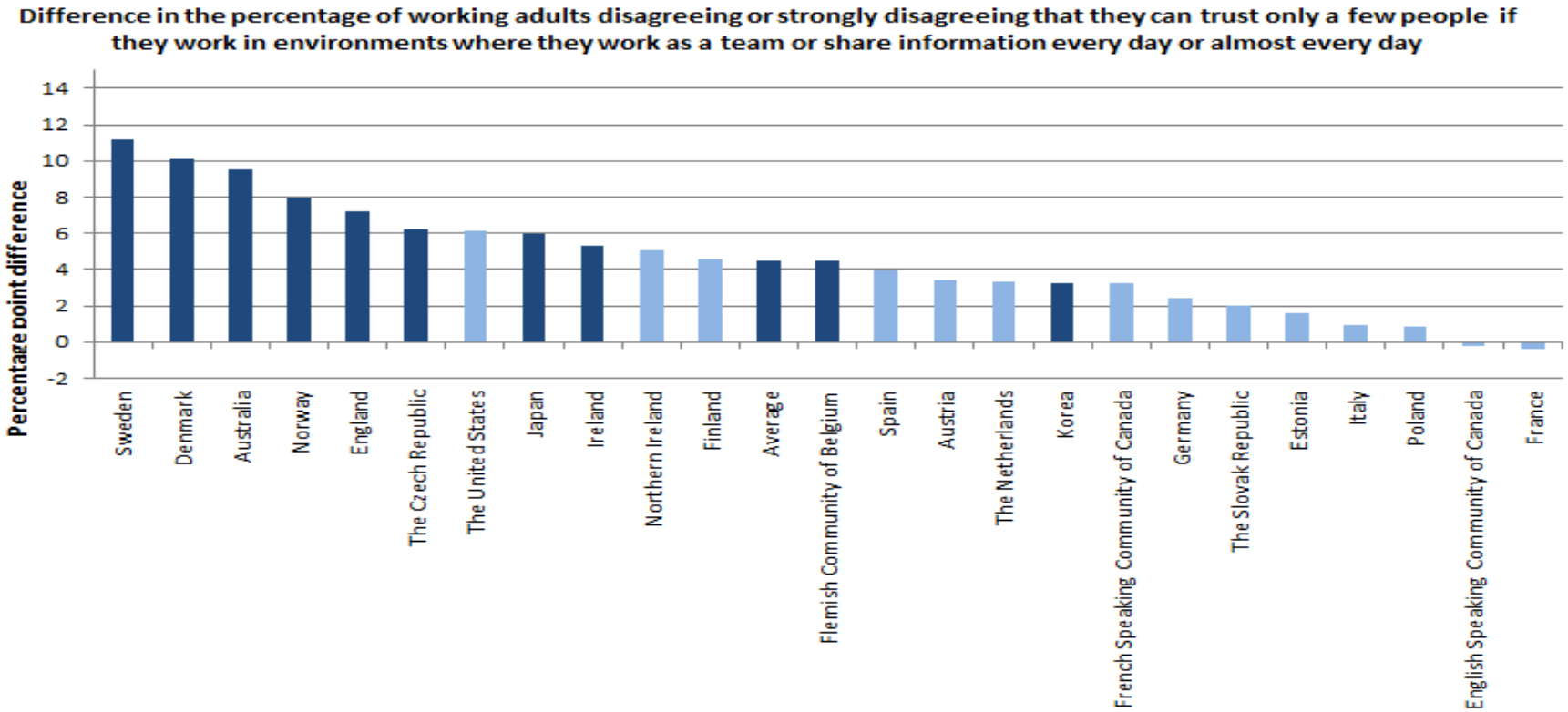
The Things-Data-People taxonomy of occupations was advanced in the 1950s and achieved widespread impact via its role in the Dictionary of Occupational Titles. The Things-Data-People taxonomy distinguishes occupations in which individuals are required to work with data, such as doing inventories in a supermarket or designing plans for a new building, a computer or a sewage system; being required to work with things, such as, for example mixing ingredients to prepare a dish, playing an instrument or repairing a car; or being required to work with people, such as caring for sick people in a hospital or teaching children in a school. One key difference of occupations in the Things-Data-People categorisation is that output, in occupations in the People category, crucially depends on the interaction and co-operation of different people, who may have different incentives, skills and interests. Occupations in the People category rely on relationships based on trust and on intrinsic motivation in order to overcome free-rider problems, because of lack of measurement and monitoring tools effectively measuring productivity and labour output.

We hypothesise that a final mechanism through which education may promote the development of trust is occupational sorting and more specifically by increasing the probability that individuals will work in occupations requiring a higher degree of teamwork and collaboration (Tables A8a and A9a). Work environments that require individuals to work in teams, that rely on co-operation and the sharing of information may promote the development of levels of interpersonal trust more than work environments that do not require individuals to collaborate with others. Alternatively, individuals who trust more may seek out professions and workplaces that require them to work more cooperatively and collegially.

Figure 10 suggests that, other things being equal, on average individuals who report always or almost always working in teams and sharing information with colleagues are 5 percentage points more likely to disagree or strongly disagree with the statement that there are only a few people they can trust completely

than individuals whose work does not require continuous teamwork (results for the being careful dimension are similar and can be found in Table A9a). The relationship is particularly large in Australia, Denmark and Sweden where the difference in levels of interpersonal trust that is associated with regular teamwork is larger than 10 percentage points. While the association is strong in some countries and communities it is not statistically significant in 14 countries and communities and, contrary to expectations, is not a strong mediator of the relationship between educational attainment and interpersonal trust. Even when controlling for literacy and work-based cooperation, results presented in Table A8a and A9a indicate that individuals who have obtained a university degree are 13 percentage points more likely to report disagreeing or strongly disagreeing with the statement that there are only a few people they can trust completely.

Figure 10. The relationship between teamwork and levels of interpersonal trust



Note: Countries are sorted in descending order to the difference in the percentage of working adults (25-65 year olds) who report disagreeing or strongly disagreeing that they can trust only a few people that is associated with individuals reporting that they work in a team or share work-related information with colleagues every day or almost every day.

Statistically significant differences ($p<0.05$) are marked in a darker tone.

Source: PIAAC 2012 Database.

Reading and writing

Reading is a form of listening: by reading we decode a text to be able to understand what the writer wants to communicate. Writing, on the other hand represents the speaking part of a conversation: it is about trying to communicate one's own thought process to others. By reading and writing individuals exercise the ability to put themselves in other people's shoes. We hypothesise that reading and writing are positively associated with levels of interpersonal trust and that one of the mechanisms through which education may promote trust development is by promoting reading and writing practices, which in turn are related to empathy. It may do so by creating a habit of reading and writing during the formative years. One of the key ways in which learning occurs in formal education settings is reading textbooks and acquiring information through written materials. Moreover, assessment often relies on the ability of students to write adequately to express and communicate what they have learnt to instructors. Secondly, education may foster a habit of reading and writing through occupational sorting: highly educated individuals are more likely than individuals with lower qualifications to enter occupations in which they are required to read and write, rather than, for example, using physical force or fine motor skills to create a product. In this sense it is important to distinguish between reading and writing at work versus those same behaviours at home. Reading and writing at work is likely to be a requirement of the job, and while it would naturally be linked to higher education levels, it is not indicative of whether the person enjoys or chooses to engage in those tasks in his/her spare time. Reading and writing at home, on the other hand, reflect both personal choice and a behavioural habit of mind, which could be importantly linked to trust.

Tables A8b and A9b show estimated educational gradients for the radius dimension of interpersonal trust and the being careful dimension before and after controlling for differences in the probability of reading and writing individuals with different levels of education have. While the association between each reading and writing indicator considered separately and overall levels of trust is not large, when taken together, reading and writing patterns in many countries and communities explain part of the trust advantage that better educated individuals report. Moreover, the mediating role played by reading and writing patterns appear to be able to explain a larger part of the estimated advantage in levels of trust reported by university graduates. It may be that reading and writing patterns are proxies for the sort of non-domain specific cognitive and social-emotional skills such as curiosity, complex communication, empathy that are not captured in the PIAAC assessment but that higher education fosters and that are important for interpersonal trust.

Socialisation processes

A final hypothesis that we explore is the extent to which specific educational pathways may give individuals greater knowledge of, and insights into, how groups and communities operate. There are a number of different ways this could work in practice, for example individuals who follow different educational pathways may be exposed to different concepts and materials, develop interests and forge connections with different peer groups and, as a consequence develop a different propensity to trust others. Conversely, individuals with a different propensity to trust others may also be differently likely to have preferences for different subject areas and be drawn to different educational pathways, for example it might be that individuals more attracted to the caring professions might be more likely to have higher levels of interpersonal trust.

PIAAC contains information on the main subject individuals studied and we are able to compare the percentage of individuals who report disagreeing or strongly disagreeing that "there are only a few people you can trust completely" (Table Ac) or that "if you are not careful, other people will take advantage of you" depending on their major in school (Table A9c). In all models the reference group is composed of

individuals who reported having studied general programmes and we control for years of schooling because in many countries subject differentiation only occurs in tertiary education and we do not want to confound the effect of educational level and field of study.

Results do not support the hypothesis that individuals who study different subjects have a different propensity to trust others. Except for individuals whose major in school was engineering, manufacturing and construction, who display lower levels of interpersonal trust than equally educated individuals who attended general programmes, there are very few differences in levels of trust by study subject. However the analyses were limited by the data available. It would be interesting to explore this further by looking at the link to field of study and the characteristics of different professions, for example, or the link between field of study and amount of time since the individual graduated.

Discussion

This paper set out to clarify the mechanisms that promote the development of interpersonal trust, with a specific focus on education. We focused on education because it plays a key role in strengthening the cognitive and analytical capacities needed to develop and maintain trust. Education also plays a role in socialising children to a set of expectations about how anonymous others will act and the incentives and motives of public institutions. It facilitates habits such as reading, writing, and working in groups, all of which are related to perspective taking and empathy, which are precursors of trust. And finally, education is instrumental in building behaviours and expectations that students will use to choose potential careers and areas of further study.

The results of the analysis of PIAAC data have yielded a number of interesting findings, as laid out in detail in the Results section above. The analysis and results reported above are built around a theoretical distinction between two different types of interpersonal trust: *personalised* trust, or trust in close family and friends, and *generalised/social* trust, or trust in anonymous others. This distinction allows us to drill down further into the relationship between the different types of interpersonal trust and education and skills. For the purposes of this discussion, interpersonal trust is treated as a unified variable unless the two subtypes are specifically mentioned.

The first general observation that should be made is that levels of interpersonal trust vary, sometimes quite substantially, across participating countries and communities. Levels of reported interpersonal trust are highest in Nordic countries such as Denmark, Norway, Sweden and Finland and lowest in Estonia, the Slovak Republic, Italy and the Czech Republic. On average across all participating countries, levels of interpersonal trust are low: only around 1 in 5 people report trusting more than just a few people or disagree with the statement that if you are not careful, other people will take advantage of you.

Confirming other research, there is an inverse relationship between between-country differences in levels of interpersonal trust and levels of income inequality, in that those countries characterised by high levels of interpersonal trust are more likely to have lower levels of income inequality (e.g., Denmark, Norway, Finland and Sweden). Countries such as Poland, Italy, France, Spain and Estonia are characterised by above levels of income inequality and lower levels of interpersonal trust.

Interestingly, other possible measures of diversity, for example the percentage of the population that is foreign born, did not show a relationship with between-country levels of interpersonal trust. While in some countries with a high proportion of foreign born population (for example Sweden) individuals express high levels of interpersonal trust, in many countries with very few migrants (Italy, the Czech Republic, the Slovak Republic and Poland) individuals express lower levels of trust and population diversity. Similarly there is no overall effect of gender that is consistent across all countries nor is there a

clear effect of age, as in some countries the eldest participants (55-65 year olds) are more likely to trust than the youngest (16-24 year olds), while in other countries the inverse is true.

The importance of education, in fact, is the major story that rings true across all participating countries and communities. This was observed on a country level, and also on an individual level through two major dimensions: in the level of education of the participant him/herself, and in the level of attainment of the participant's parents. In terms of the individual, university level graduates report higher levels of interpersonal trust than individuals who only obtained lower-secondary qualifications. This difference is larger than 25 percentage points in Denmark, Sweden, Norway, Finland, the Netherlands and the French speaking community of Canada. This effect is generally progressive, such that each extra qualification is associated with higher reported levels of interpersonal trust. Interestingly, this difference is not solely due to increased literacy gained through more education. In fact, the effect of increased literacy on levels of trust is most pronounced in individuals who have received only lower secondary qualifications, and much less powerful for those who obtain tertiary degrees.

In terms of parental educational attainment, individuals whose parents did not obtain a tertiary degree are much less likely to trust others. Further analysis reveals that this effect appears to be primarily due to increasing the chances that children will achieve different levels of schooling, rather than affecting levels of trust directly. For example, because parental education has a very strong effect on educational attainment, individuals have a much higher probability of obtaining a tertiary degree if their parents obtained a tertiary degree. However, when comparing individuals who have the same level of educational attainment, parental education does not matter much in predicting levels of trust.

So what does this mean? First the good news: more education is related to higher levels of interpersonal trust. The cognitive skills required to analyse and encode the complex information about individuals and their level of trustworthiness are sharpened and developed as we progress through the education system. This is, in a sense, problem solving at the highest level: in order to make judgements of trust, we must evaluate available information, code and categorise all further information about a person or institution to help refine our understanding of how trustworthy they are, and then adapt behaviour and expectations accordingly. We must also be able to generalise from individual examples to broader categories of persons (including anonymous others). We must understand that trusting anonymous others enables communities to solve collective action problems and that co-operation with others, whether in formal or informal settings, is an opportunity to be explored rather than a threat and a challenge to their interests. This last element is both a tricky cognitive challenge and a socially agreed set of expectations. Schooling thus works to enhance cognitive skills, provide greater knowledge of how communities and governments operate, and also exposes students to socially agreed norms and cultural identity. These findings underscore the tight connection that exists between social capital and human capital as measured by skills: countries that are successful in promoting skills acquisition also effectively demonstrate the greater interpersonal trust upon which social capital is built.

However the good news comes with some less good news: despite the important role of individual educational attainment, the "parental education effect" is still very powerful. Just as highly educated individuals have potentially greater access to diverse networks (which rely on interpersonal trust) so too do their children. While this is not bad news for those who are highly educated, it suggests that the intergenerational transmission of educational advantage is alive and well in the world of trust. In our Introduction we posed the question of whether trust could be considered independently of advantage and used to break some of the systemic elements that contribute to inequality, or alternatively, if higher trust was related to higher economic and social advantage because the system is structured to work for those already in it. The findings from these analyses indicate that while trust can be considered independently of advantage in individuals with similar levels of education, individuals whose parents did not obtain a tertiary degree are much less likely to trust others. This suggests that the system is, to some degree,

structured to work for those already in it. And while education is a major pathway for increasing upward mobility across generations, more can still be done.

What of the other roles of education? Education not only enhances cognitive functioning, but also habits and behaviours, socialisation and occupational sorting and these appear to be particularly strong mechanisms among the most highly educated. In the Introduction we hypothesised that reading and writing are positively associated with levels of interpersonal trust and that one of the mechanisms through which education may promote trust development is by promoting reading and writing practices, which in turn are related to empathy. The results from our analyses are clear: While the association is not large, reading and writing patterns in many countries and communities explain part of the trust advantage that better educated individuals report. We had hypothesised that reading at home would be particularly revealing in that it reflects personal choice and a behavioural habit of mind, as opposed to something required by the workplace. This is, to some extent, what was found, although the effect was neither uniform nor particularly strong. It may be that reading and writing patterns are proxies for the sort of non-domain specific cognitive and social-emotional skills such as curiosity, complex communication, empathy that are not captured in the PIAAC assessment but that higher education fosters and that are important for interpersonal trust.

In a similar vein, education is also the main pathway for individuals to enter the labour market. As such it plays a role not only in equipping young people with the skills, behaviours and expectations that they will use to choose potential careers and areas of further study. It also – for better or worse – plays a role in socialising youngsters about the kinds of careers that may be more stereotypically acceptable for them (based on gender lines, for example). Different careers require different levels of autonomy and different levels of teamwork, and may thus also be related to trust in others. For example, occupations that require care-giving, customer service, leadership and influencing people (e.g. sales) crucially depend on the interaction and co-operation of different people, who may have different incentives, skills and interests. These kinds of occupations rely on relationships based on trust and on intrinsic motivation in order to ensure that everyone contributes their fair share to group engagement and output. We asked the question of whether trust was related to occupational sorting, so that individuals who have higher trust prefer to work on teams and more interactively with colleagues and choose careers that allow them to do this. Alternatively, these skills might evolve differently in different workplace environments, thus influencing the level of trust. The results from our analysis do not allow us to infer the direction of causality, but they do demonstrate that there is a connection. Individuals who report working in environments that require more interaction with colleagues do demonstrate higher levels of interpersonal trust in general. However the relationship is not consistent across all participating countries, and it is strongly influenced by level of education.

Conclusions and policy implications

This paper has laid out the importance of trust for social and economic well-being, for enhancing social cohesion and strengthening resilience, and for maintaining security and order in our societies. Importantly, all forms of trust – from institutional trust in government to interpersonal trust in anonymous others - are necessary and important parts of the equation. Despite this, most of the current policy work at the OECD looks almost exclusively at institutional trust. This paper set out to go beyond the work on trust in institutions and government that is the focus of much of the work on corporate governance, consumer policy, tax compliance, and anti-corruption measures. It does this by focussing on interpersonal trust and its relationship to education.

Trust is the foundation upon which social capital is built and it also is intimately related to human capital. Our analysis has demonstrated that education strengthens the cognitive and analytical capacities needed to develop, maintain, and (perhaps) restore trust in both close relationships as well as in anonymous

others. It does so both directly, through building and reinforcing literacy and numeracy in individuals, and indirectly, through facilitating habits and reinforcing behaviours such as reading and writing at home and at work, which are also related to higher trust. Fukuyama argued that *"law, contract, and economic rationality provide a necessary but not a sufficient basis for both the stability and prosperity of postindustrial societies; they must as well be leavened with reciprocity, moral obligations, duty toward community and trust, **which are based in habit rather than rational calculation**"* (Fukuyama, 1995, emphasis added).

Education not only enhances cognitive functioning, but also the social and emotional skills needed to navigate the world and interpret the behaviour of other human beings. Individuals are not always consistent, and in any interaction (with peers or with strangers) there is a possibility that the person or group does NOT behave in a trustworthy fashion. One of the most important aspects of building and maintaining trust is the ability to categorise and interpret these unexpected interactions: Is the person/group fundamentally not trustworthy? Or is this just a rare occurrence that should not affect the expectation of trust for this individual or this type of interaction? Education reinforces the emotional and social skills necessary to interpret behaviour and understand the intentions of others, as well as the cognitive capacity to make sense of these judgements.

Education also plays an important role in building habits and behaviours, such as reading and writing. It also is instrumental in socialising children about career options, as well as setting the stage for their career choices. Different careers require different levels of autonomy and different levels of teamwork, and are thus also related to trust in others.

Education and trust are thus fundamentally intertwined and dependent on each other. There is a role for both formal education systems and institutions and for learning throughout the lifespan, in families, communities, and informal learning arrangements that serve to build or reinforce skill sets. While all countries across the OECD have been striving to improve their education systems in terms of student achievement levels, this paper suggests that there are also concrete elements that could be usefully addressed in order to reinforce and strengthen interpersonal trust. These include:

- Continue to **work to improve the quality of education** as well as the literacy and numeracy of the population, including through lifelong learning. This provides the cognitive abilities and social and emotional skills necessary for the development of trust, supplies greater knowledge of how communities operate, and also exposes students to socially agreed norms and cultural identity;

- **Reinforce habits such as reading**, which is related to increased levels of interpersonal trust. Not only does reading reinforce literacy skills, it builds a set of behaviours and habits which appear to be importantly related to the development and maintenance of all forms of trust;

- **Improve pathways and access to higher education**: the effect of education on trust is generally progressive, such that each extra qualification is associated with higher reported levels of trust. University graduates reported the highest levels of interpersonal trust, even when literacy and numeracy was controlled for;

- Work to **strengthen social and emotional skills underlying collaboration, teamwork, and cooperation**. Individuals who work in environments that require more interaction with colleagues report on average higher levels of interpersonal trust. However the relationship is not consistent across all participating countries and it is strongly influenced by level of education.

- Actively seek options to **break the systemic elements that contribute to inequality**. While education is a major pathway for increasing upward mobility across generations, the intergenerational transmission of advantage is still very much alive. Higher trust is related to greater economic and social advantage because the system is still to some extent structured to work for those already in it. Education can and should play a greater role in reducing inequalities and access to opportunity.

The elements outlined above are necessarily general in nature, as building and (potentially) restoring trust over time will be very much context-dependent. Devising a "one size fits all" response to an inherently multifaceted issue is thus neither possible nor desirable. As outlined in the results section, the relationship between age and trust for example varies dramatically over the participating countries as a function of their historical and cultural context as well as the evolution and quality of the education system. What works for one system will thus clearly not necessarily work for another, particularly when looking at an element as inherently human and personal as trust.

However this caution does not mean that nothing should be done. This work is just one of many that underscore the importance of reinforcing trust, understood to be a key driver of economic and social well-being. This paper is one of a two-part series that looks at education, trust, and political efficacy through the analysis of PIAAC data. The twin to this paper focuses on institutional trust and political efficacy and its relationship to education and skills. That work can be found in Borgonovi and Burns (forthcoming).

In addition to extending the conclusions as set out above, future work should include a closer look at how trust is developed and maintained over time, with a special emphasis on what works to reinforce trust if it is failing. What do we know about how trust is broken? Like any set of beliefs or expectations, trust is resilient and can withstand numerous contradictions, disappointments, and even betrayal. However there is a tipping point at which trust can be broken, and knowing more about the mechanisms that underlie its resilience and/or failure would be crucial to devising any lasting strategy for its continued evolution and reinforcement.

Understanding these mechanisms could also be useful to help suggest how trust, once broken, could be restored over time. A large body of literature (see Cerna, 2014 for an overview) has looked at how trust evolves over time, which is essential to the understanding of any dynamic and changeable attitude, belief, and expectation. Understanding the ebbs and flows of trust and, equally importantly, distrust, are important from a research perspective and essential from a policy one. Strengthening and reinforcing trust in our systems and societies and knowing how to rebuild trust if it is broken need to be adequately understood as the complex systems they are in order for any policy response to be able to begin to address the issue.

This last point is key: short-term solutions aimed at easy fixes will not work in this case. At the same time as public trust in institutions has declined, cynicism about government and the objectives of reform and who benefits has grown. Enduring concerns about equity, the social contract, and fairness in our societies require a serious and nuanced approach to the issue. Trust is a complex human behaviour, and any policy aimed at building and restoring trust must embrace this complexity and humanness in order to succeed. Anything less, and it risks being perceived as a media-friendly effort to distract from the real issues and problems citizens are facing. However if we can rise to the occasion, we have absolutely everything to gain.

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ANNEX A

Table A1. Levels of interpersonal trust

	Percentage of 16-65 year olds who disagree or strongly disagree with the statement "there are only a few people you can trust completely"		**Percentage of 16-65 year olds who disagree or strongly disagree with the statement "If you are not careful, other people will take advantage of you"**	
	%	SE	%	SE
Australia	23.0	(0.7)	14.1	(0.6)
Austria	22.2	(0.6)	17.9	(0.6)
Flemish Community of Belgium	18.5	(0.6)	18.8	(0.6)
English Speaking Community of Canada	24.6	(0.5)	14.5	(0.4)
French Speaking Community of Canada	26.5	(0.6)	19.8	(0.6)
The Czech Republic	7.1	(0.5)	5.0	(0.5)
Germany	14.9	(0.6)	8.3	(0.4)
Denmark	44.9	(0.6)	38.4	(0.6)
England	18.7	(0.7)	13.0	(0.5)
Spain	21.3	(0.5)	16.8	(0.6)
Estonia	9.7	(0.3)	9.4	(0.3)
Finland	33.3	(0.6)	38.5	(0.6)
France	10.3	(0.3)	14.2	(0.4)
Ireland	16.0	(0.5)	12.4	(0.5)
Italy	8.7	(0.5)	7.0	(0.4)
Japan	18.2	(0.6)	32.9	(0.8)
Korea	12.8	(0.4)	10.5	(0.4)
Northern Ireland	16.2	(0.7)	10.3	(0.7)
The Netherlands	31.4	(0.6)	24.8	(0.5)
Norway	34.0	(0.7)	30.0	(0.6)
Poland	15.5	(0.6)	6.1	(0.3)
The Slovak Republic	9.3	(0.4)	8.7	(0.4)
Sweden	33.7	(0.7)	41.6	(0.7)
The United States	22.3	(0.7)	10.9	(0.5)
Average	20.6	(0.1)	17.7	(0.1)

Source: PIAAC Database, 2012

Table A2 Gender differences in levels of interpersonal trust

	Percentage of individuals aged 25-65 who disagree or strongly disagree with the statement "there are only a few people you can trust completely"						Percentage of individuals aged 25-65 who disagree or strongly disagree with the statement "If you are not careful, other people will take advantage of you"					
	Men		Women		Gender gap (M-W)		Men		Women		Gender gap (M-W)	
	%	SE	%	SE	% point dif.	SE	%	SE	%	SE	% point dif.	SE
Australia	22.1	(0.9)	23.9	(0.9)	1.85	(1.1)	12.0	(0.8)	16.3	(0.7)	4.26	(1.1)
Austria	20.9	(1.0)	23.5	(0.9)	2.60	(1.3)	15.8	(0.8)	20.0	(0.9)	4.22	(1.2)
Flemish Community of Belgium	19.1	(0.9)	17.9	(0.8)	-1.19	(1.1)	17.5	(0.8)	20.2	(0.7)	2.79	(1.1)
English Speaking Community of Canada	22.5	(0.8)	26.7	(0.8)	4.13	(1.1)	12.3	(0.6)	16.8	(0.5)	4.53	(0.8)
French Speaking Community of Canada	25.3	(0.9)	27.6	(1.0)	2.28	(1.4)	16.4	(0.8)	23.1	(0.8)	6.77	(1.1)
The Czech Republic	7.6	(0.7)	6.6	(0.7)	-0.97	(0.9)	4.5	(0.7)	5.6	(0.6)	1.14	(0.8)
Germany	14.3	(0.8)	15.5	(0.7)	1.19	(1.0)	6.7	(0.5)	9.8	(0.6)	3.12	(0.8)
Denmark	40.2	(0.9)	49.8	(0.8)	9.63	(1.2)	30.4	(0.9)	46.6	(0.8)	16.21	(1.3)
England	17.6	(1.0)	19.9	(1.0)	2.31	(1.3)	10.7	(0.7)	15.2	(0.7)	4.48	(0.9)
Spain	20.6	(0.8)	22.0	(0.8)	1.47	(1.2)	15.3	(0.8)	18.3	(0.8)	3.00	(1.1)
Estonia	8.4	(0.5)	10.9	(0.5)	2.51	(0.7)	7.7	(0.5)	10.9	(0.5)	3.22	(0.8)
Finland	32.5	(0.9)	34.2	(0.9)	1.72	(1.2)	36.7	(0.9)	40.3	(1.0)	3.68	(1.4)
France	10.9	(0.5)	9.6	(0.4)	-1.25	(0.7)	13.3	(0.5)	15.0	(0.5)	1.70	(0.8)
Ireland	16.2	(0.7)	15.9	(0.7)	-0.35	(1.0)	11.8	(0.7)	13.0	(0.6)	1.20	(1.0)
Italy	9.2	(0.7)	8.2	(0.7)	-1.01	(1.0)	6.6	(0.7)	7.3	(0.5)	0.69	(0.8)
Japan	17.2	(0.8)	19.2	(0.8)	1.95	(1.2)	29.5	(0.8)	36.4	(1.1)	6.88	(1.2)
Korea	14.1	(0.7)	11.6	(0.6)	-2.46	(0.9)	10.4	(0.6)	10.6	(0.6)	0.21	(0.8)
Northern Ireland	16.6	(1.1)	15.9	(1.0)	-0.67	(1.6)	8.1	(0.9)	12.3	(0.9)	4.20	(1.2)
The Netherlands	31.2	(0.9)	31.7	(0.8)	0.47	(1.3)	21.9	(0.7)	27.7	(0.9)	5.74	(1.3)
Norway	33.1	(1.0)	35.0	(1.0)	1.92	(1.5)	26.4	(0.8)	33.7	(1.0)	7.28	(1.3)
Poland	14.3	(0.8)	16.7	(0.8)	2.38	(1.3)	5.1	(0.4)	7.1	(0.5)	1.91	(0.7)
The Slovak Republic	9.2	(0.6)	9.4	(0.6)	0.27	(0.7)	8.8	(0.6)	8.6	(0.6)	-0.12	(0.8)
Sweden	31.5	(0.9)	36.0	(0.9)	4.45	(1.2)	38.5	(1.2)	44.9	(1.0)	6.38	(1.6)
The United States	21.6	(1.2)	22.9	(0.8)	1.30	(1.3)	9.9	(0.7)	11.8	(0.7)	1.94	(1.0)
Average	19.8	(0.2)	21.3	(0.2)	1.44	(0.2)	15.7	(0.2)	19.7	(0.2)	3.98	(0.2)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.

Table A3 Levels of interpersonal trust across different age groups

	Difference in the percentage of individuals who disagree or strongly disagree with the statement "there are only a few people you can trust completely" compared to 25-34 year olds												Difference in the percentage of individuaks who disagree or strongly disagree with the statement "If you are not careful, other people will take advantage of you" compared to 25-34 year olds.											
	Raw age differential						Age differential adjusted for educational attainment						Raw age differential						Age differential adjusted for educational attainment					
	35-44 year olds		45-54 year olds		55-65 year olds		35-44 year olds		45-54 year olds		55-65 year olds		35-44 year olds		45-54 year olds		55-65 year olds		35-44 year olds		45-54 year olds		55-65 year olds	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	-0.45	(1.9)	1.37	(2.3)	0.03	(2.2)	0.51	(1.8)	4.01	(2.2)	3.26	(2.2)	1.79	(1.3)	**4.65**	(1.6)	**7.63**	(1.9)	2.45	(1.3)	**6.56**	(1.6)	**9.96**	(1.9)
Austria	1.65	(1.7)	1.22	(1.6)	2.47	(2.7)	2.10	(1.7)	2.23	(1.7)	3.38	(2.6)	1.95	(2.0)	-0.32	(2.0)	4.01	(2.7)	2.39	(2.0)	0.64	(2.0)	4.86	(2.7)
Flemish Community of Belgium	**3.95**	(1.9)	**6.48**	(1.9)	**6.65**	(2.5)	**4.90**	(1.9)	**8.90**	(2.0)	**10.00**	(2.5)	**4.33**	(2.0)	2.57	(2.1)	4.30	(2.8)	**5.27**	(2.1)	**4.87**	(2.1)	**7.45**	(2.9)
English Speaking Community of Canada	1.35	(1.8)	**5.10**	(1.8)	3.36	(2.1)	1.25	(1.8)	**6.18**	(1.7)	**4.84**	(2.0)	0.29	(1.4)	**4.54**	(1.5)	**5.29**	(1.9)	0.22	(1.4)	**5.31**	(1.5)	**6.41**	(1.9)
French Speaking Community of Canada	0.70	(2.4)	-3.44	(2.7)	**-5.60**	(2.5)	0.16	(2.4)	-0.77	(2.7)	-2.10	(2.5)	-2.91	(2.3)	-2.76	(1.9)	**-7.31**	(1.9)	-3.36	(2.2)	-0.75	(1.9)	**-4.52**	(1.9)
The Czech Republic	0.74	(1.7)	1.21	(2.7)	-0.70	(1.6)	1.81	(1.7)	2.64	(2.9)	0.51	(1.8)	-0.36	(1.5)	-0.12	(1.6)	2.16	(2.1)	0.30	(1.5)	0.67	(1.6)	2.91	(2.2)
Germany	**-4.34**	(2.0)	**-3.53**	(1.7)	**-5.33**	(1.8)	**-4.14**	(2.1)	-3.25	(1.7)	**-5.68**	(1.8)	-1.27	(1.5)	-0.69	(1.5)	-0.99	(1.7)	-1.15	(1.5)	-0.52	(1.5)	-1.22	(1.7)
Denmark	**4.93**	(2.4)	**9.30**	(2.4)	3.83	(2.6)	**6.41**	(2.3)	**13.49**	(2.5)	**8.33**	(2.5)	**5.97**	(2.6)	**12.63**	(2.4)	**4.99**	(2.4)	**7.54**	(2.5)	**17.11**	(2.3)	**9.83**	(2.3)
England	**3.79**	(1.9)	2.82	(2.2)	1.62	(2.5)	**5.25**	(1.9)	**5.58**	(2.2)	**5.51**	(2.5)	0.75	(1.9)	2.42	(2.0)	4.30	(2.5)	1.60	(1.9)	**4.32**	(1.9)	**6.96**	(2.5)
Spain	2.45	(2.3)	-0.80	(2.3)	-1.02	(2.7)	2.45	(2.2)	0.25	(2.2)	1.47	(2.6)	0.29	(2.0)	2.82	(1.9)	-1.13	(2.3)	0.46	(2.0)	**3.70**	(1.8)	0.93	(2.3)
Estonia	0.27	(1.2)	-2.29	(1.3)	-1.92	(1.3)	0.34	(1.2)	-2.13	(1.3)	-2.03	(1.3)	-0.73	(1.2)	**-3.42**	(1.2)	**-3.63**	(1.2)	-0.65	(1.1)	**-3.20**	(1.2)	**-3.73**	(1.3)
Finland	-0.49	(2.3)	-2.19	(2.3)	**-6.07**	(2.3)	0.26	(2.3)	1.35	(2.3)	-0.57	(2.3)	3.02	(2.5)	2.20	(2.2)	-1.16	(2.1)	3.64	(2.4)	**4.79**	(2.2)	2.85	(2.1)
France	2.12	(1.2)	2.09	(1.1)	1.99	(1.3)	**2.65**	(1.1)	**4.19**	(1.1)	**4.58**	(1.3)	**2.61**	(1.3)	**3.18**	(1.4)	-0.30	(1.7)	**3.33**	(1.3)	**6.02**	(1.4)	3.04	(1.7)
Ireland	-1.08	(2.3)	-1.86	(2.1)	-0.44	(2.9)	0.13	(2.3)	0.97	(2.1)	4.01	(3.1)	1.24	(1.8)	1.45	(2.0)	-1.59	(1.8)	2.09	(1.9)	3.49	(2.0)	1.73	(2.0)
Italy	-0.53	(2.2)	-0.43	(2.0)	0.57	(2.8)	0.72	(2.1)	1.52	(2.0)	2.60	(2.7)	-0.06	(2.0)	-1.46	(1.9)	-0.25	(2.4)	1.41	(2.0)	0.80	(2.0)	1.88	(2.4)
Japan	2.00	(1.8)	**5.64**	(1.9)	0.09	(1.6)	2.73	(1.7)	**6.51**	(1.8)	2.82	(1.7)	-3.59	(2.4)	-1.24	(2.4)	-0.48	(2.5)	-2.73	(2.4)	-0.24	(2.4)	2.82	(2.6)
Korea	**-3.56**	(1.6)	-3.56	(1.8)	-2.40	(1.8)	-2.33	(1.6)	-0.22	(1.9)	2.95	(2.0)	0.34	(1.6)	0.26	(1.6)	-2.47	(1.7)	0.73	(1.6)	1.26	(1.7)	-0.96	(1.8)
Northern Ireland	-1.27	(2.3)	3.32	(3.0)	1.36	(3.7)	0.16	(2.3)	**6.00**	(3.0)	6.14	(3.6)	2.19	(1.9)	**5.09**	(2.1)	**7.45**	(3.0)	2.97	(1.9)	**6.53**	(2.1)	**9.89**	(3.2)
The Netherlands	-2.50	(2.2)	2.65	(2.5)	3.20	(2.7)	-1.23	(2.2)	**5.70**	(2.4)	**7.26**	(2.7)	3.69	(2.4)	**8.84**	(2.3)	**8.64**	(2.5)	**4.87**	(2.3)	**11.51**	(2.2)	**12.22**	(2.3)
Norway	**7.16**	(2.2)	**13.96**	(2.5)	**10.15**	(3.1)	**6.71**	(2.1)	**16.30**	(2.5)	**12.56**	(3.0)	**8.29**	(2.4)	**10.59**	(2.5)	**7.52**	(2.4)	**7.81**	(2.2)	**12.49**	(2.5)	**9.64**	(2.3)
Poland	-3.49	(2.2)	**-5.67**	(1.8)	**-4.38**	(2.0)	-1.19	(2.2)	-2.41	(1.9)	-0.48	(2.1)	-0.36	(1.3)	-1.64	(1.3)	-1.53	(1.8)	0.60	(1.3)	-0.34	(1.2)	-0.07	(1.7)
The Slovak Republic	2.36	(1.7)	0.31	(1.3)	0.67	(1.6)	2.71	(1.6)	1.04	(1.3)	1.30	(1.6)	0.26	(1.5)	-0.98	(1.4)	0.23	(1.9)	0.38	(1.5)	-0.67	(1.4)	0.53	(1.9)
Sweden	**5.98**	(2.4)	**5.65**	(2.4)	**7.08**	(2.2)	**6.76**	(2.4)	**8.73**	(2.3)	**11.02**	(2.2)	**9.38**	(2.2)	2.24	(2.4)	**7.16**	(2.3)	**10.01**	(2.2)	4.42	(2.5)	**10.02**	(2.3)
The United States	0.34	(1.9)	1.64	(2.5)	**5.56**	(2.3)	0.04	(2.0)	2.17	(2.6)	**5.53**	(2.3)	1.04	(1.5)	**5.23**	(1.5)	**5.06**	(1.8)	0.88	(1.5)	**5.48**	(1.6)	**5.04**	(1.8)
Average	**0.92**	(0.4)	**1.63**	(0.4)	0.86	(0.5)	**1.63**	(0.4)	**3.71**	(0.4)	**3.63**	(0.5)	**1.59**	(0.4)	**2.34**	(0.4)	**2.00**	(0.4)	**2.13**	(0.4)	**3.93**	(0.4)	**4.10**	(0.4)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.

Table A4. The relationship between labour market participation and interpersonal trust

	Percentage of adults (age 25-65) who disagrees or strongly disagrees with the statement "there are only a few people you can trust completely" compared to working indviduals				Percentage of adults (age 25-65) who disagrees or strongly disagrees with the statement "If you are not careful, other people will take advantage of you" compared to working individuals			
	Unemployed		Not in the labour force		Unemployed		Not in the labour force	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	-1.23	(3.6)	**-6.70**	(1.9)	-2.19	(2.5)	-1.28	(1.5)
Austria	**-11.55**	(3.1)	**-5.94**	(1.4)	-5.26	(4.3)	**-5.62**	(1.4)
Flemish Community of Belgium	**-11.12**	(3.7)	**-5.76**	(1.5)	-0.66	(5.1)	**-5.71**	(1.4)
English Speaking Community of Canada	**-8.68**	(3.3)	**-5.46**	(1.3)	-3.94	(2.3)	-0.61	(1.3)
French Speaking Community of Canada	**-15.20**	(3.8)	**-7.74**	(1.5)	**-8.77**	(3.2)	**-5.09**	(1.3)
The Czech Republic	**-5.45**	(1.9)	-2.21	(1.3)	-1.96	(1.8)	-1.20	(1.1)
Germany	-4.39	(2.8)	**-2.73**	(1.3)	**-5.69**	(1.5)	-2.00	(1.1)
Denmark	**-12.59**	(4.2)	**-17.20**	(1.5)	**-19.08**	(3.2)	**-16.36**	(1.7)
England	**-10.08**	(1.8)	**-3.55**	(1.5)	**-6.05**	(2.2)	-0.73	(1.5)
Spain	**-9.58**	(1.8)	**-5.51**	(1.3)	**-5.94**	(1.5)	-1.26	(1.3)
Estonia	-0.22	(1.9)	**-3.81**	(0.9)	**-6.13**	(1.1)	**-2.49**	(1.0)
Finland	**-13.29**	(3.1)	**-13.63**	(1.9)	**-13.66**	(4.0)	**-13.06**	(1.7)
France	-0.91	(1.5)	**-2.69**	(0.8)	-3.78	(2.1)	-1.63	(0.9)
Ireland	**-4.66**	(1.8)	**-3.15**	(1.4)	-3.69	(2.2)	**-3.30**	(1.2)
Italy	**-4.50**	(1.7)	**-3.49**	(1.3)	-1.36	(1.8)	**-2.42**	(1.0)
Japan	**-13.18**	(2.8)	-0.80	(1.5)	-7.22	(5.9)	2.80	(1.9)
Korea	4.74	(3.6)	-1.04	(1.0)	-1.56	(2.7)	-1.63	(1.0)
Northern Ireland	-8.09	(5.0)	**-8.10**	(1.6)	-2.05	(3.1)	**-3.80**	(1.5)
The Netherlands	**-13.43**	(4.2)	**-10.21**	(1.9)	**-13.92**	(3.3)	**-8.48**	(1.7)
Norway	**-19.83**	(4.4)	**-14.89**	(2.2)	**-19.43**	(3.5)	**-9.48**	(2.2)
Poland	**-4.99**	(2.2)	**-4.68**	(1.3)	**-4.33**	(1.0)	-1.32	(0.8)
The Slovak Republic	-0.81	(1.8)	**-2.51**	(0.9)	-0.60	(1.8)	-0.67	(0.9)
Sweden	**-18.92**	(3.9)	**-15.39**	(2.2)	**-11.26**	(4.5)	**-8.69**	(2.5)
The United States	2.03	(3.4)	**-4.94**	(1.8)	0.10	(2.1)	-0.75	(1.2)
Average	**-7.75**	(0.6)	**-6.34**	(0.3)	**-6.18**	(0.6)	**-3.95**	(0.3)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.

Table A5. Socio-economic disparities in levels of interpersonal trust

	Difference in the percentage of working adults (age 25-65) who disagrees or strongly disagrees with the statement "there are only a few people you can trust completely" that is associated with having low educated parents						Difference in the percentage of working adults (age 25-65) who disagrees or strongly disagrees with the statement "If you are not careful, other people will take advantage of you" that is associated with having low educated parents					
	Mother did not obtain a tertiary degree		Father did not obtain a tertiary degree		Constant		Mother did not obtain a tertiary degree		Father did not obtain a tertiary degree		Constant	
	% point dif.	SE	% point dif.	SE	%	SE	% point dif.	SE	% point dif.	SE	%	SE
Australia	**-5.76**	(2.3)	**-5.96**	(2.5)	35.1	(2.4)	**-6.07**	(1.9)	-2.29	(2.0)	22.4	(1.7)
Austria	**-9.60**	(3.9)	**-5.30**	(2.2)	37.0	(4.0)	**-9.71**	(3.5)	**-4.88**	(2.1)	32.6	(3.3)
Flemish Community of Belgium	**-5.76**	(2.5)	-3.77	(2.3)	28.4	(2.4)	**-10.95**	(2.6)	**-5.99**	(2.1)	34.9	(2.4)
English Speaking Community of Canada	-1.35	(1.8)	**-5.22**	(1.7)	32.0	(1.8)	-1.70	(1.4)	-2.32	(1.3)	18.3	(1.4)
French Speaking Community of Canada	**-8.45**	(2.8)	**-6.54**	(2.5)	41.1	(2.6)	**-7.33**	(2.5)	**-4.94**	(2.4)	31.6	(2.4)
The Czech Republic	-2.78	(4.3)	**-6.34**	(2.9)	16.1	(3.6)	-3.16	(2.7)	-3.93	(2.3)	12.2	(3.5)
Germany	**-4.93**	(2.4)	**-7.81**	(1.8)	24.6	(2.2)	-2.88	(2.1)	**-6.14**	(1.4)	15.5	(1.9)
Denmark	**-5.80**	(2.4)	**-7.88**	(2.4)	62.7	(2.0)	**-4.96**	(2.3)	**-12.06**	(2.4)	58.3	(1.9)
England	**-8.82**	(2.8)	-4.02	(2.5)	32.3	(2.9)	-1.25	(2.2)	-2.06	(2.1)	17.2	(2.1)
Spain	-4.21	(4.3)	**-12.31**	(2.9)	38.6	(4.0)	-1.66	(3.7)	**-7.63**	(2.6)	26.5	(3.8)
Estonia	**-3.36**	(1.3)	**-3.50**	(1.7)	16.1	(1.4)	**-3.27**	(1.2)	**-3.71**	(1.5)	16.0	(1.3)
Finland	-3.15	(3.1)	**-6.63**	(2.8)	45.0	(2.8)	-4.43	(3.1)	-4.13	(2.8)	50.2	(3.1)
France	**-3.45**	(1.6)	**-6.70**	(1.6)	20.7	(1.7)	**-10.99**	(2.4)	**-4.86**	(1.9)	29.1	(2.0)
Ireland	-0.80	(2.5)	**-10.89**	(2.8)	28.0	(2.6)	-2.73	(2.2)	-4.20	(2.3)	20.8	(2.4)
Italy	1.14	(3.2)	**-8.24**	(3.4)	17.1	(3.6)	-2.54	(5.1)	-4.15	(3.9)	14.5	(3.9)
Japan	-2.58	(2.0)	**-3.85**	(1.8)	23.5	(1.8)	-1.22	(2.3)	**-6.22**	(2.4)	38.4	(2.2)
Korea	-2.52	(3.0)	-0.21	(1.8)	15.0	(2.7)	-3.09	(3.1)	-2.05	(1.6)	15.8	(3.3)
Northern Ireland	-3.28	(3.9)	-3.22	(3.7)	25.3	(4.0)	-1.72	(3.0)	-0.78	(3.0)	14.6	(2.5)
The Netherlands	-5.12	(3.3)	**-6.18**	(2.2)	44.6	(3.2)	**-7.50**	(3.1)	**-6.67**	(2.1)	40.0	(3.2)
Norway	-4.05	(2.5)	**-9.39**	(2.2)	49.3	(2.2)	**-4.51**	(2.2)	**-7.55**	(2.1)	43.5	(1.7)
Poland	**-10.64**	(3.5)	-4.66	(3.5)	30.3	(3.4)	-4.16	(2.9)	**-5.18**	(2.6)	15.0	(2.4)
The Slovak Republic	**-8.08**	(3.9)	0.38	(1.9)	16.6	(3.7)	**-8.34**	(3.8)	1.55	(2.4)	15.3	(3.2)
Sweden	**-10.43**	(2.7)	-1.80	(2.9)	49.2	(2.3)	**-8.06**	(2.5)	0.08	(2.6)	51.9	(2.2)
The United States	-0.31	(2.1)	**-10.26**	(2.2)	31.5	(2.0)	-2.54	(1.5)	-2.58	(1.6)	15.1	(1.4)
Average	**-4.75**	(0.6)	**-5.85**	(0.5)	31.7	(0.6)	**-4.78**	(0.6)	**-4.28**	(0.5)	27.1	(0.5)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.

Table A6. Levels of interpersonal trust, by educational attainment

	Percentage of individuals aged 25-65 who disagree or strongly disagree with the statement "there are only a few people you can trust completely", by level of educational attainment										Percentage of individuals aged 25-65 who disagree or strongly disagree with the statement "If you are not careful, other people will take advantage of you", by level of educational attainment									
	ISCED 1, 2 and 3C		ISCED 3 or 4		ISCED 5b		ISCED 5a or 6		Dif. (5A or 6 - 1, 2 and 3C)		ISCED 1, 2 and 3C		ISCED 3 or 4		ISCED 5b		ISCED 5a or 6		Dif. (5A or 6 - 1, 2 and 3C)	
	%	SE	%	SE	%	SE	%	SE	% pont dif.	SE	%	SE	%	SE	%	SE	%	SE	% pont dif.	SE
Australia	15.2	(1.0)	19.2	(1.1)	24.4	(2.0)	35.4	(1.3)	**20.2**	(1.4)	10.4	(0.8)	10.2	(0.7)	15.9	(1.7)	24.4	(1.4)	**14.0**	(1.5)
Austria	14.6	(1.3)	21.3	(0.8)	28.1	(2.3)	33.7	(2.0)	**19.1**	(2.3)	11.3	(1.2)	16.8	(0.8)	25.0	(2.1)	31.1	(2.0)	**19.8**	(2.2)
Flemish Community of Belgium	9.7	(1.2)	13.3	(0.8)	25.2	(1.5)	33.6	(2.1)	**23.8**	(2.5)	10.2	(1.3)	14.4	(0.9)	24.5	(1.6)	33.9	(2.0)	**23.7**	(2.5)
English Speaking Community of Canada	17.5	(1.6)	21.9	(1.0)	24.0	(1.2)	33.2	(1.1)	**15.6**	(2.0)	10.1	(1.2)	11.9	(0.7)	14.1	(1.1)	20.2	(1.0)	**10.1**	(1.7)
French Speaking Community of Canada	16.7	(1.7)	19.2	(1.1)	25.4	(1.4)	42.5	(1.4)	**25.8**	(2.2)	11.9	(1.5)	13.6	(0.9)	20.9	(1.3)	31.0	(1.4)	**19.1**	(2.2)
The Czech Republic	4.1	(1.1)	5.2	(0.5)	8.3	(4.5)	15.9	(2.3)	**11.8**	(2.4)	4.0	(1.1)	3.9	(0.6)	2.8	(1.9)	11.6	(1.5)	**7.6**	(1.7)
Germany	8.0	(1.6)	10.3	(0.7)	16.7	(1.7)	25.5	(1.3)	**17.5**	(2.3)	4.1	(1.0)	5.5	(0.6)	10.5	(1.2)	15.5	(1.1)	**11.4**	(1.6)
Denmark	31.5	(1.5)	41.6	(1.2)	62.8	(1.4)	62.4	(1.4)	**31.0**	(2.0)	23.0	(1.4)	33.0	(1.1)	58.7	(1.3)	56.2	(1.3)	**33.2**	(1.9)
England	9.7	(1.0)	15.6	(1.0)	23.8	(2.4)	27.9	(1.3)	**18.2**	(1.8)	7.9	(1.0)	11.3	(0.9)	15.1	(2.0)	20.5	(1.3)	**12.5**	(1.5)
Spain	15.2	(0.7)	19.5	(1.4)	23.5	(2.4)	34.0	(1.5)	**18.8**	(1.7)	12.0	(0.7)	18.2	(1.5)	15.3	(1.9)	27.6	(1.4)	**15.5**	(1.5)
Estonia	7.6	(0.9)	6.6	(0.5)	10.4	(1.0)	17.2	(0.9)	**9.6**	(1.3)	8.4	(1.0)	6.6	(0.5)	8.1	(0.7)	16.9	(1.1)	**8.5**	(1.5)
Finland	18.9	(1.8)	27.1	(1.0)	35.4	(1.5)	48.9	(1.4)	**30.0**	(2.1)	27.5	(2.0)	35.8	(1.0)	41.7	(1.7)	49.8	(1.3)	**22.2**	(2.4)
France	7.2	(0.6)	9.0	(0.6)	9.7	(1.0)	20.3	(1.0)	**13.1**	(1.3)	9.5	(0.8)	11.6	(0.6)	16.7	(1.5)	26.1	(1.2)	**16.7**	(1.5)
Ireland	11.1	(1.0)	14.4	(0.9)	17.5	(1.3)	26.1	(1.4)	**15.0**	(1.6)	9.2	(0.9)	11.6	(0.8)	15.9	(1.1)	20.5	(1.2)	**11.3**	(1.4)
Italy	5.9	(0.7)	11.1	(1.1)	0.0	(0.0)	15.3	(1.5)	**9.4**	(1.6)	4.5	(0.5)	8.2	(0.8)	0.0	(0.0)	15.4	(1.6)	**10.9**	(1.7)
Japan	11.0	(1.5)	14.2	(0.9)	20.5	(1.4)	24.1	(1.3)	**13.1**	(1.9)	27.2	(2.5)	29.4	(1.1)	34.4	(1.5)	39.0	(1.3)	**11.7**	(2.7)
Korea	8.2	(1.0)	9.7	(0.6)	14.3	(1.1)	18.6	(1.0)	**10.3**	(1.4)	8.5	(1.0)	10.2	(0.7)	9.6	(1.0)	13.9	(1.0)	**5.4**	(1.6)
Northern Ireland	8.8	(1.0)	17.1	(1.4)	18.7	(2.7)	25.7	(1.7)	**17.0**	(1.9)	7.6	(1.0)	9.0	(1.1)	13.0	(2.3)	17.3	(1.4)	**9.6**	(1.7)
The Netherlands	20.0	(1.2)	30.1	(1.0)	36.6	(3.5)	46.0	(1.4)	**26.0**	(1.8)	15.0	(1.0)	21.6	(0.9)	31.1	(3.8)	39.5	(1.3)	**24.5**	(1.6)
Norway	24.2	(1.7)	28.8	(1.1)	43.3	(3.3)	50.1	(1.3)	**25.9**	(2.2)	20.1	(1.3)	25.7	(1.2)	42.3	(3.7)	44.8	(1.3)	**24.7**	(1.8)
Poland	8.4	(1.1)	11.3	(0.8)	0.0	(0.0)	24.5	(1.3)	**16.1**	(1.8)	6.1	(1.3)	4.2	(0.4)	0.0	(0.0)	9.8	(0.8)	**3.7**	(1.5)
The Slovak Republic	5.6	(0.9)	7.9	(0.5)	0.0	(0.0)	13.6	(1.0)	**8.0**	(1.4)	6.3	(1.1)	8.5	(0.6)	0.0	(0.0)	11.0	(1.2)	**4.7**	(1.6)
Sweden	24.3	(1.6)	31.1	(1.1)	42.0	(2.8)	51.6	(1.4)	**27.3**	(2.3)	36.5	(2.2)	38.6	(1.2)	47.3	(2.7)	57.0	(1.3)	**20.5**	(2.7)
The United States	12.6	(2.2)	18.3	(1.1)	24.4	(2.4)	33.4	(1.5)	**20.8**	(2.7)	7.4	(1.7)	8.9	(0.8)	10.4	(1.7)	16.1	(0.8)	**8.7**	(1.8)
Average	13.2	(0.3)	17.7	(0.2)	25.5	(0.5)	31.7	(0.3)	**18.5**	(0.4)	12.5	(0.3)	15.4	(0.2)	22.5	(0.4)	27.0	(0.3)	**14.6**	(0.4)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.

Table A7. Intergenerational transmission of educational advantage and socio-economic disparities in levels of interpersonal trust

	Difference in the percentage of working adults (age 16-65) who disagrees or strongly disagrees with the statement "there are only a few people you can trust completely" depending on parental educational attainment:								Difference in the percentage of working adults (age 16-65) who disagrees or strongly disagrees with the statement "If you are not careful, other people will take advantage of you" depending on parental educational attainment							
	socio-economic disparities				controlling for the respondent's educational attainment				socio-economic disparities				controlling for the respondent's educational attainment			
	Mother's education (not having achieved tertiary)		Father's education (not having achieved tertiary)		Mother's education (not having achieved tertiary)		Father's education (not having achieved tertiary)		Mother's education (not having achieved tertiary)		Father's education (not having achieved tertiary)		Mother's education (not having achieved tertiary)		Father's education (not having achieved tertiary)	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	**-5.8**	(2.3)	**-6.0**	(2.5)	-2.6	(2.3)	-1.2	(2.6)	**-6.1**	(1.9)	-2.3	(2.0)	-3.4	(2.0)	1.7	(2.1)
Austria	**-9.6**	(3.9)	**-5.3**	(2.2)	-5.9	(4.0)	-2.9	(2.3)	**-9.7**	(3.5)	**-4.9**	(2.1)	-5.7	(3.7)	-2.3	(2.0)
Flemish Community of Belgium	**-5.8**	(2.5)	-3.8	(2.3)	-1.1	(2.6)	2.0	(2.3)	**-11.0**	(2.6)	**-6.0**	(2.1)	**-7.1**	(2.5)	-1.2	(2.1)
English Speaking Community of Canada	-1.4	(1.8)	**-5.2**	(1.7)	-0.2	(1.8)	-2.7	(1.7)	-1.7	(1.4)	-2.3	(1.3)	-0.9	(1.4)	-0.5	(1.3)
French Speaking Community of Canada	**-8.5**	(2.8)	**-6.5**	(2.5)	-4.9	(2.8)	0.3	(2.4)	**-7.3**	(2.5)	**-4.9**	(2.4)	**-4.8**	(2.4)	0.0	(2.5)
The Czech Republic	-2.8	(4.3)	**-6.3**	(2.9)	0.8	(4.5)	-3.7	(2.7)	-3.2	(2.7)	-3.9	(2.3)	-0.8	(2.8)	-2.3	(2.4)
Germany	**-4.9**	(2.4)	**-7.8**	(1.8)	-2.8	(2.4)	**-4.6**	(1.9)	-2.9	(2.1)	**-6.1**	(1.4)	-1.6	(2.1)	**-4.2**	(1.5)
Denmark	**-5.8**	(2.4)	**-7.9**	(2.4)	-2.1	(2.5)	-1.7	(2.4)	**-5.0**	(2.3)	**-12.1**	(2.4)	-1.1	(2.3)	**-5.7**	(2.4)
England	**-8.8**	(2.8)	-4.0	(2.5)	**-6.6**	(2.8)	-0.7	(2.6)	-1.3	(2.2)	-2.1	(2.1)	0.6	(2.2)	1.0	(2.3)
Spain	-4.2	(4.3)	**-12.3**	(2.9)	-1.2	(4.4)	**-6.3**	(3.0)	-1.7	(3.7)	**-7.6**	(2.6)	1.0	(3.8)	-2.3	(2.7)
Estonia	**-3.4**	(1.3)	**-3.5**	(1.7)	-1.5	(1.4)	-1.9	(1.7)	**-3.3**	(1.2)	**-3.7**	(1.5)	-1.7	(1.2)	-2.4	(1.5)
Finland	-3.1	(3.1)	**-6.6**	(2.8)	0.5	(3.1)	-0.6	(2.8)	-4.4	(3.1)	-4.1	(2.8)	-2.2	(3.0)	-0.3	(2.7)
France	**-3.4**	(1.6)	**-6.7**	(1.6)	-0.7	(1.5)	-2.6	(1.6)	**-11.0**	(2.4)	**-4.9**	(1.9)	**-7.4**	(2.3)	0.5	(2.0)
Ireland	-0.8	(2.5)	**-10.9**	(2.8)	1.3	(2.4)	**-7.6**	(2.8)	-2.7	(2.2)	-4.2	(2.3)	-1.3	(2.2)	-2.0	(2.3)
Italy	1.1	(3.2)	**-8.2**	(3.4)	3.4	(3.4)	-5.3	(3.4)	-2.5	(5.1)	-4.2	(3.9)	1.5	(5.2)	0.3	(3.9)
Japan	-2.6	(2.0)	**-3.8**	(1.8)	-0.8	(1.9)	-0.7	(1.9)	-1.2	(2.3)	**-6.2**	(2.4)	0.8	(2.3)	-2.8	(2.5)
Korea	-2.5	(3.0)	-0.2	(1.8)	-0.7	(3.0)	3.5	(1.8)	-3.1	(3.1)	-2.0	(1.6)	-2.4	(3.2)	-0.7	(1.9)
Northern Ireland	-3.3	(3.9)	-3.2	(3.7)	-0.9	(4.0)	0.1	(3.8)	-1.7	(3.0)	-0.8	(3.0)	0.2	(3.1)	1.1	(3.0)
The Netherlands	-5.1	(3.3)	**-6.2**	(2.2)	-0.4	(3.4)	-0.6	(2.2)	**-7.5**	(3.1)	**-6.7**	(2.1)	-2.8	(3.2)	-1.3	(2.1)
Norway	-4.0	(2.5)	**-9.4**	(2.2)	-0.6	(2.5)	-3.5	(2.3)	**-4.5**	(2.2)	**-7.6**	(2.1)	-1.4	(2.1)	-2.1	(2.3)
Poland	**-10.6**	(3.5)	-4.7	(3.5)	**-7.2**	(3.5)	-0.5	(3.7)	-4.2	(2.9)	**-5.2**	(2.6)	-2.9	(2.9)	-3.7	(2.7)
The Slovak Republic	**-8.1**	(3.9)	0.4	(1.9)	-6.5	(4.1)	2.3	(2.0)	**-8.3**	(3.8)	1.5	(2.4)	**-7.8**	(3.8)	2.2	(2.4)
Sweden	**-10.4**	(2.7)	-1.8	(2.9)	**-6.6**	(2.7)	2.4	(2.9)	**-8.1**	(2.5)	0.1	(2.6)	**-5.1**	(2.5)	3.4	(2.6)
The United States	-0.3	(2.1)	**-10.3**	(2.2)	2.6	(2.2)	**-6.3**	(2.1)	-2.5	(1.5)	-2.6	(1.6)	-1.2	(1.5)	-0.7	(1.6)
Average	**-4.8**	(0.6)	**-5.8**	(0.5)	**-1.9**	(0.6)	**-1.8**	(0.5)	**-4.8**	(0.6)	**-4.3**	(0.5)	**-2.4**	(0.6)	**-1.0**	(0.5)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.

Table A8a. The origins of the educational gradient in levels of interpersonal trust - radius of trust dimension

	Difference in the percentage of working adults (age 25-65) who disagrees or strongly disagrees with the statement "there are only a few people you can trust completely"																					
	Educational attainment gradient						Educational attainment gradient, controlling for literacy								Educational attainment gradient, controlling for literacy and teamwork							
	Upper secondary non-tertiary (ISCED 3a, ab 3c long and ISCED 4)		Tertiary degree, non academic (ISCED 5B)		University graduate (ISCED 6)		Upper secondary non-tertiary (ISCED 3a, ab 3c long and ISCED 4)		Tertiary degree, non academic (ISCED 5B)		University graduate (ISCED 6)		Literacy proficiency		Upper secondary non-tertiary (ISCED 3a, ab 3c long and ISCED 4)		Tertiary degree, non academic (ISCED 5B)		University graduate (ISCED 6)		Literacy proficiency		Teamwork	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	2.96	(2.1)	**6.90**	(3.0)	**17.96**	(2.4)	0.02	(2.1)	2.55	(3.0)	**11.31**	(2.5)	**0.15**	(0.0)	0.26	(2.0)	2.23	(3.0)	**11.13**	(2.4)	**0.14**	(0.0)	**9.54**	(3.1)
Austria	**6.27**	(2.3)	**11.27**	(3.5)	**17.13**	(2.7)	2.91	(2.4)	5.99	(3.4)	**9.63**	(2.8)	**0.13**	(0.0)	2.46	(2.4)	5.48	(3.5)	**9.12**	(3.1)	**0.13**	(0.0)	3.40	(2.5)
Flemish Community of Belgium	**7.07**	(1.8)	**19.52**	(2.6)	**27.65**	(3.1)	**7.49**	(1.8)	**20.39**	(2.7)	**28.73**	(3.3)	-0.02	(0.0)	**7.38**	(1.8)	**19.81**	(2.8)	**28.36**	(3.3)	-0.02	(0.0)	**4.46**	(2.2)
English Speaking Community of Canada	1.17	(2.9)	2.16	(3.0)	**10.71**	(2.8)	-3.67	(2.9)	-4.01	(3.0)	2.40	(3.0)	**0.12**	(0.0)	-3.32	(2.9)	-3.57	(3.1)	3.06	(3.1)	**0.12**	(0.0)	-0.24	(2.7)
French Speaking Community of Canada	1.31	(3.1)	**9.32**	(3.4)	**25.22**	(3.5)	-2.10	(3.2)	4.73	(3.5)	**18.71**	(3.7)	**0.09**	(0.0)	-2.03	(3.1)	4.97	(3.5)	**19.08**	(3.7)	**0.09**	(0.0)	3.25	(2.6)
The Czech Republic	-1.12	(2.1)	3.99	(5.9)	**8.70**	(3.5)	-1.90	(2.3)	2.45	(5.9)	6.87	(4.1)	0.04	(0.0)	-2.48	(2.4)	2.14	(6.1)	6.45	(4.3)	0.03	(0.0)	**6.21**	(1.2)
Germany	0.01	(3.1)	**6.87**	(3.4)	**13.43**	(3.5)	-3.21	(3.0)	2.31	(3.3)	**7.41**	(3.4)	**0.08**	(0.0)	-3.40	(3.1)	2.22	(3.3)	**7.12**	(3.5)	**0.08**	(0.0)	2.45	(2.2)
Denmark	**9.84**	(2.5)	**27.02**	(2.7)	**28.54**	(2.6)	**6.60**	(2.4)	**20.86**	(2.7)	**21.16**	(2.7)	**0.15**	(0.0)	**6.29**	(2.4)	**20.36**	(2.7)	**20.89**	(2.7)	**0.15**	(0.0)	**10.09**	(3.5)
England	4.48	(2.5)	**12.20**	(3.5)	**15.19**	(2.5)	1.69	(2.6)	**8.75**	(3.6)	**10.48**	(2.8)	**0.10**	(0.0)	1.18	(2.5)	**8.95**	(3.6)	**10.44**	(2.9)	**0.09**	(0.0)	**7.25**	(3.3)
Spain	**5.57**	(2.0)	**8.50**	(2.9)	**16.85**	(2.4)	**4.48**	(2.0)	**7.14**	(2.9)	**14.40**	(2.7)	**0.05**	(0.0)	3.83	(2.1)	**6.44**	(2.9)	**13.58**	(2.8)	0.04	(0.0)	4.02	(2.5)
Estonia	-0.90	(1.6)	1.94	(1.9)	**9.14**	(1.9)	-1.20	(1.6)	1.55	(1.9)	**8.43**	(2.0)	0.02	(0.0)	-1.45	(1.7)	1.34	(2.0)	**8.23**	(2.0)	0.01	(0.0)	1.62	(1.2)
Finland	**9.30**	(2.8)	**16.20**	(3.1)	**31.24**	(2.8)	**8.93**	(2.9)	**15.41**	(3.2)	**30.13**	(3.2)	0.02	(0.0)	**7.72**	(3.1)	**14.10**	(3.4)	**28.44**	(3.4)	0.03	(0.0)	4.57	(3.0)
France	**2.85**	(1.2)	**3.90**	(1.7)	**14.32**	(1.8)	1.87	(1.3)	2.03	(1.9)	**12.16**	(1.9)	**0.04**	(0.0)	1.99	(1.3)	2.31	(1.8)	**12.43**	(1.9)	**0.04**	(0.0)	-0.37	(1.5)
Ireland	2.61	(2.1)	**5.57**	(2.2)	**12.85**	(2.4)	1.86	(2.0)	**4.50**	(2.2)	**11.29**	(2.4)	0.03	(0.0)	1.70	(2.1)	4.01	(2.2)	**10.57**	(2.5)	0.03	(0.0)	**5.30**	(2.5)
Italy	**5.21**	(1.7)	c	c	**8.99**	(1.8)	**4.13**	(1.9)	c	c	**7.31**	(2.0)	0.04	(0.0)	**4.68**	(1.8)	c	c	**8.29**	(2.1)	0.03	(0.0)	0.90	(1.8)
Japan	0.22	(2.2)	**6.14**	(2.6)	**11.36**	(2.6)	-0.21	(2.2)	**5.48**	(2.6)	**10.27**	(2.8)	0.02	(0.0)	0.28	(2.2)	**5.26**	(2.5)	**10.99**	(2.8)	0.02	(0.0)	**5.95**	(1.6)
Korea	**3.89**	(1.3)	**9.47**	(1.9)	**13.51**	(1.6)	**4.03**	(1.4)	**9.70**	(2.1)	**13.81**	(2.0)	-0.01	(0.0)	2.82	(1.5)	**9.36**	(2.3)	**13.23**	(2.2)	-0.01	(0.0)	**3.27**	(1.2)
Northern Ireland	**9.97**	(2.7)	**8.10**	(3.6)	**15.68**	(2.9)	**8.66**	(2.9)	6.41	(3.7)	**13.15**	(3.3)	0.04	(0.0)	**8.58**	(3.1)	6.17	(3.9)	**12.59**	(3.5)	0.04	(0.0)	5.05	(3.5)
The Netherlands	**9.24**	(2.1)	**13.47**	(3.9)	**25.47**	(2.3)	**4.84**	(2.2)	7.35	(3.8)	**16.94**	(2.6)	**0.16**	(0.0)	**4.68**	(2.3)	7.21	(3.8)	**17.31**	(2.6)	**0.16**	(0.0)	3.36	(2.5)
Norway	**4.80**	(2.3)	**17.36**	(4.3)	**25.03**	(2.6)	3.06	(2.4)	**13.26**	(4.3)	**19.51**	(2.8)	**0.14**	(0.0)	2.82	(2.3)	**13.66**	(4.3)	**19.21**	(2.8)	**0.13**	(0.0)	**7.95**	(3.6)
Poland	0.58	(2.2)	c	c	**11.78**	(2.9)	-0.64	(2.3)	c	c	**8.75**	(3.2)	**0.05**	(0.0)	-1.89	(2.7)	c	c	**6.92**	(3.5)	**0.06**	(0.0)	0.85	(3.0)
The Slovak Republic	**3.53**	(1.7)	c	c	**8.16**	(1.9)	2.79	(1.7)	c	c	**6.96**	(2.2)	0.03	(0.0)	2.27	(1.8)	c	c	**6.63**	(2.3)	0.03	(0.0)	2.02	(2.0)
Sweden	4.70	(2.9)	**14.70**	(4.1)	**23.57**	(3.6)	0.78	(2.9)	**8.49**	(4.1)	**15.60**	(3.7)	**0.14**	(0.0)	0.35	(3.1)	**8.57**	(4.2)	**15.55**	(3.8)	**0.14**	(0.0)	**11.21**	(3.9)
The United States	4.75	(3.2)	**11.37**	(3.8)	**18.99**	(3.3)	-0.76	(3.2)	4.12	(3.6)	**9.77**	(3.2)	**0.11**	(0.0)	-1.48	(3.3)	2.81	(3.6)	**8.36**	(3.3)	**0.11**	(0.0)	6.18	(3.9)
Average	**4.10**	(0.5)	**10.28**	(0.7)	**17.14**	(0.6)	**2.10**	(0.5)	**7.12**	(0.7)	**13.13**	(0.6)	**0.07**	(0.0)	**1.80**	(0.5)	**6.85**	(0.7)	**12.83**	(0.6)	**0.07**	(0.0)	**4.51**	(0.5)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.
Regression controlling for gender, parental educational attainment and age. Individuals 25+ working.

Table A8b. The origins of the educational gradient in levels of interpersonal trust - radius of trust dimension

	Difference in the percentage of working adults (age 25-65) who disagrees or strongly disagrees with the statement "there are only a few people you can trust completely"																							
	Educational attainment gradient								Educational attainment gradient, controlling for literacy and reading and writing at home and at work															
	Upper secondary non-tertiary (ISCED 3a, ab 3c long and ISCED 4)		Tertiary degree, non academic (ISCED 5B)		University graduate (ISCED 6)		Literacy proficiency		Upper secondary non-tertiary (ISCED 3a, ab 3c long and ISCED 4)		Tertiary degree, non academic (ISCED 5B)		University graduate (ISCED 6)		Literacy proficiency		Reading at home		Reading at work		Writing at home		Writing at work	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	0.02	(2.1)	2.55	(3.0)	**11.31**	(2.5)	**0.15**	(0.0)	0.83	(2.3)	2.60	(3.2)	**10.39**	(2.6)	**0.15**	(0.0)	-0.26	(1.5)	-0.56	(1.2)	1.70	(1.2)	1.92	(1.1)
Austria	2.91	(2.4)	5.99	(3.4)	**9.63**	(2.8)	**0.13**	(0.0)	-0.70	(3.1)	0.57	(4.1)	4.06	(3.5)	**0.13**	(0.0)	2.04	(1.8)	0.32	(1.3)	1.54	(1.5)	-0.39	(1.0)
Flemish Community of Belgium	**7.49**	(1.8)	**20.39**	(2.7)	**28.73**	(3.3)	-0.02	(0.0)	**6.17**	(2.5)	**16.04**	(3.3)	**23.72**	(3.6)	-0.02	(0.0)	0.90	(1.3)	1.87	(1.2)	1.61	(1.0)	**2.06**	(1.0)
English Speaking Community of Canada	-3.67	(2.9)	-4.01	(3.0)	2.40	(3.0)	**0.12**	(0.0)	-3.47	(3.6)	-5.18	(3.6)	0.44	(3.8)	**0.11**	(0.0)	0.97	(1.1)	**2.82**	(1.1)	1.09	(0.8)	-0.34	(0.9)
French Speaking Community of Canada	-2.10	(3.2)	4.73	(3.5)	**18.71**	(3.7)	**0.09**	(0.0)	-5.80	(4.8)	0.39	(4.9)	**12.91**	(5.1)	**0.08**	(0.0)	-1.16	(1.7)	**4.58**	(1.4)	1.34	(1.1)	0.96	(1.1)
The Czech Republic	-1.90	(2.3)	2.45	(5.9)	6.87	(4.1)	0.04	(0.0)	-6.53	(3.8)	-3.54	(6.4)	0.00	(4.5)	0.05	(0.0)	-0.01	(1.6)	**2.90**	(1.4)	1.26	(1.1)	-1.12	(1.3)
Germany	-3.21	(3.0)	2.31	(3.3)	**7.41**	(3.4)	**0.08**	(0.0)	-4.99	(4.7)	-0.74	(5.1)	3.78	(5.3)	**0.08**	(0.0)	1.76	(1.4)	-0.07	(1.2)	1.76	(1.1)	0.91	(1.0)
Denmark	**6.60**	(2.4)	**20.86**	(2.7)	**21.16**	(2.7)	**0.15**	(0.0)	3.93	(2.9)	**17.29**	(3.2)	**16.74**	(3.2)	**0.14**	(0.0)	2.45	(1.5)	**4.32**	(1.5)	-0.53	(1.0)	-0.96	(1.1)
England	1.69	(2.6)	**8.75**	(3.6)	**10.48**	(2.8)	**0.10**	(0.0)	3.19	(2.8)	**9.42**	(3.9)	**10.03**	(3.2)	**0.08**	(0.0)	1.85	(1.6)	1.56	(1.6)	2.41	(1.4)	0.72	(1.1)
Spain	**4.48**	(2.0)	**7.14**	(2.9)	**14.40**	(2.7)	**0.05**	(0.0)	3.20	(2.9)	5.47	(3.7)	**10.23**	(3.5)	0.05	(0.0)	**2.60**	(1.3)	0.38	(1.2)	1.38	(1.4)	0.53	(1.0)
Estonia	-1.20	(1.6)	1.55	(1.9)	**8.43**	(2.0)	0.02	(0.0)	-1.52	(2.5)	0.16	(2.8)	4.81	(2.9)	0.02	(0.0)	0.52	(1.0)	**2.14**	(0.9)	0.57	(0.8)	1.01	(0.8)
Finland	**8.93**	(2.9)	**15.41**	(3.2)	**30.13**	(3.2)	0.02	(0.0)	6.37	(3.3)	**10.14**	(3.6)	**23.26**	(3.6)	0.00	(0.0)	3.49	(1.9)	0.24	(1.4)	2.17	(1.3)	**5.37**	(1.3)
France	1.87	(1.3)	2.03	(1.9)	**12.16**	(1.9)	**0.04**	(0.0)	3.02	(1.6)	2.51	(1.9)	**11.82**	(2.0)	**0.04**	(0.0)	0.09	(0.8)	-0.05	(0.8)	**2.11**	(0.8)	-0.53	(0.7)
Ireland	1.86	(2.0)	**4.50**	(2.2)	**11.29**	(2.4)	0.03	(0.0)	0.37	(2.7)	2.42	(2.9)	**8.79**	(3.1)	0.03	(0.0)	1.20	(1.3)	2.29	(1.3)	0.44	(1.2)	-1.10	(1.0)
Italy	**4.13**	(1.9)	c	c	**7.31**	(2.0)	0.04	(0.0)	**5.41**	(2.3)	**-8.45**	(2.7)	**8.06**	(3.0)	0.03	(0.0)	0.44	(1.1)	-1.58	(1.0)	**2.32**	(1.2)	1.29	(1.0)
Japan	-0.21	(2.2)	**5.48**	(2.6)	**10.27**	(2.8)	0.02	(0.0)	-1.75	(3.1)	2.46	(3.5)	6.76	(3.6)	0.02	(0.0)	1.86	(1.2)	1.90	(1.0)	0.75	(1.0)	1.30	(0.8)
Korea	**4.03**	(1.4)	**9.70**	(2.1)	**13.81**	(2.0)	-0.01	(0.0)	-3.03	(2.9)	2.82	(3.4)	5.67	(3.4)	-0.02	(0.0)	0.56	(1.2)	**2.48**	(1.2)	0.44	(0.6)	0.48	(0.8)
Northern Ireland	**8.66**	(2.9)	6.41	(3.7)	**13.15**	(3.3)	0.04	(0.0)	5.07	(3.5)	1.92	(4.0)	**8.95**	(3.8)	0.03	(0.0)	3.08	(2.3)	1.27	(1.7)	-0.30	(1.6)	-0.49	(1.4)
The Netherlands	**4.84**	(2.2)	7.35	(3.8)	**16.94**	(2.6)	**0.16**	(0.0)	2.81	(2.4)	3.93	(3.9)	**13.07**	(2.8)	**0.14**	(0.0)	**3.49**	(1.5)	1.61	(1.5)	0.95	(1.4)	-0.10	(1.3)
Norway	3.06	(2.4)	**13.26**	(4.3)	**19.51**	(2.8)	**0.14**	(0.0)	2.36	(2.6)	**12.12**	(4.7)	**16.94**	(3.0)	**0.13**	(0.0)	0.97	(1.8)	1.63	(1.7)	**2.76**	(1.0)	0.94	(1.3)
Poland	-0.64	(2.3)	c	c	**8.75**	(3.2)	**0.05**	(0.0)	-10.10	(6.6)	c	c	-7.27	(7.3)	0.06	(0.0)	**4.93**	(1.6)	1.87	(1.5)	0.61	(1.4)	-0.35	(1.1)
The Slovak Republic	2.79	(1.7)	c	c	**6.96**	(2.2)	0.03	(0.0)	0.13	(2.7)	c	c	2.54	(2.8)	0.04	(0.0)	**2.70**	(1.1)	1.66	(0.9)	-0.42	(0.7)	0.21	(0.8)
Sweden	0.78	(2.9)	**8.49**	(4.1)	**15.60**	(3.7)	**0.14**	(0.0)	-0.84	(3.1)	5.92	(4.2)	**12.46**	(4.0)	**0.15**	(0.0)	0.11	(2.1)	**4.60**	(1.8)	-0.78	(1.3)	1.45	(1.5)
The United States	-0.76	(3.2)	4.12	(3.6)	**9.77**	(3.2)	**0.11**	(0.0)	-3.57	(4.1)	1.12	(4.2)	4.96	(4.3)	**0.10**	(0.0)	1.34	(1.2)	-0.01	(1.7)	**2.77**	(1.1)	0.94	(1.1)
Average	**2.10**	(0.5)	**7.12**	(0.7)	**13.13**	(0.6)	**0.07**	(0.0)	0.02	(0.7)	**3.61**	(0.8)	**8.88**	(0.8)	**0.07**	(0.0)	**1.50**	(0.3)	**1.59**	(0.3)	**1.16**	(0.2)	**0.61**	(0.2)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.
Regression controlling for gender, parental educational attainment and age. Individuals 25+ working.

Table A8c. Field of study and levels of interpersonal trust - radius of trust dimension

	Difference in the percentage of working adults (age 25-65) who disagrees or strongly disagrees with the statement "there are only a few people you can trust completely"																			
	Years of education		Literacy		Teacher training and education science		Humanities, languages and arts		Social sciences, business and law		Science, mathematics and computing		Engineering, manufacturing and construction		Agriculture and veterinary		Health and welfare		Services	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	**3.15**	(0.8)	**0.17**	(0.0)	3.15	(4.8)	-4.30	(5.2)	-4.17	(3.7)	**-10.87**	(4.8)	-2.32	(3.1)	-1.61	(6.1)	0.50	(4.3)	-3.72	(5.3)
Austria	**1.22**	(0.5)	**0.14**	(0.0)	-4.93	(5.1)	-0.28	(6.2)	**-10.22**	(3.7)	-7.40	(7.5)	**-13.95**	(3.8)	-8.41	(4.8)	-5.73	(5.5)	-7.02	(4.2)
Flemish Community of Belgium	**4.61**	(0.6)	-0.01	(0.0)	5.11	(4.2)	0.54	(3.8)	1.13	(2.5)	4.42	(3.8)	1.02	(2.5)	10.88	(7.0)	4.60	(3.2)	2.59	(4.5)
English Speaking Community of Canada	**1.66**	(0.5)	**0.12**	(0.0)	4.64	(3.6)	-0.39	(3.5)	**-5.03**	(2.5)	-3.81	(3.1)	**-5.44**	(2.2)	-1.42	(7.0)	2.52	(2.6)	-4.29	(2.7)
French Speaking Community of Canada	**3.22**	(0.6)	**0.11**	(0.0)	**15.78**	(5.0)	6.28	(3.6)	**9.14**	(3.7)	-2.87	(3.5)	3.28	(3.0)	-5.99	(6.1)	5.87	(3.9)	0.62	(2.8)
The Czech Republic	**1.58**	(0.6)	0.02	(0.0)	0.34	(4.5)	7.16	(7.2)	2.39	(2.5)	-1.55	(5.1)	-1.34	(2.0)	3.92	(3.4)	5.29	(6.3)	**7.83**	(3.2)
Germany	**1.72**	(0.4)	**0.10**	(0.0)	-1.01	(7.4)	-3.62	(7.2)	-8.40	(6.3)	-4.61	(6.9)	-9.55	(6.1)	-13.27	(7.0)	-4.61	(6.1)	-8.41	(6.8)
Denmark	**2.72**	(0.4)	**0.15**	(0.0)	7.98	(4.2)	-2.39	(4.5)	-3.36	(3.9)	-1.45	(4.6)	-4.96	(3.5)	1.57	(5.2)	6.61	(4.1)	**-10.37**	(3.9)
England	**1.40**	(0.4)	**0.10**	(0.0)	5.04	(5.0)	2.00	(3.1)	0.02	(3.3)	0.68	(3.7)	-1.99	(3.6)	-6.89	(8.3)	6.13	(4.6)	0.00	(0.0)
Spain	**1.84**	(0.7)	0.06	(0.0)	6.70	(5.0)	1.91	(4.3)	3.25	(4.5)	-3.73	(4.8)	0.40	(4.0)	-4.30	(7.4)	7.53	(5.5)	4.44	(6.2)
Estonia	**1.25**	(0.3)	0.02	(0.0)	2.66	(2.8)	-0.66	(3.2)	**3.91**	(2.0)	-3.01	(3.0)	-2.19	(1.2)	-0.48	(2.1)	-1.01	(2.9)	1.06	(2.0)
Finland	**3.30**	(0.4)	0.03	(0.0)	**10.84**	(5.1)	9.57	(4.9)	2.79	(3.7)	9.43	(5.9)	4.69	(3.7)	5.94	(5.2)	**11.22**	(4.0)	1.15	(3.7)
France	**1.66**	(0.3)	**0.04**	(0.0)	1.92	(2.9)	0.60	(3.1)	2.38	(2.2)	1.01	(2.3)	-0.48	(2.0)	1.27	(2.7)	3.10	(2.4)	2.00	(2.1)
Ireland	**1.90**	(0.8)	**0.06**	(0.0)	7.62	(4.9)	1.56	(5.2)	0.21	(4.1)	0.36	(4.4)	-0.46	(4.7)	-4.09	(5.3)	-1.01	(4.1)	4.14	(5.6)
Italy	0.55	(0.3)	0.04	(0.0)	-7.05	(5.9)	-3.19	(5.2)	-6.29	(5.0)	-3.67	(5.5)	**-10.90**	(5.0)	-4.32	(6.4)	-1.96	(5.5)	**-10.74**	(5.2)
Japan	**1.80**	(0.4)	0.03	(0.0)	3.52	(3.2)	7.77	(4.2)	4.48	(2.5)	9.09	(6.0)	-1.71	(1.7)	2.47	(3.9)	2.63	(2.9)	1.72	(3.8)
Korea	**1.98**	(0.4)	-0.01	(0.0)	-0.41	(3.4)	1.49	(3.1)	2.15	(2.4)	-2.77	(2.3)	-2.31	(1.9)	-5.67	(3.1)	-1.57	(3.5)	0.85	(4.2)
Northern Ireland	0.80	(0.7)	0.07	(0.0)	10.11	(6.7)	3.42	(4.9)	-2.70	(4.1)	-0.10	(4.6)	-3.49	(4.9)	-9.97	(7.6)	1.46	(5.1)	0.00	(0.0)
The Netherlands	**3.63**	(0.8)	**0.17**	(0.0)	3.61	(5.1)	1.06	(6.6)	-2.78	(4.1)	-10.50	(5.5)	-5.95	(4.2)	-1.98	(6.3)	4.44	(4.1)	-7.05	(6.2)
Norway	**3.52**	(0.6)	**0.16**	(0.0)	-2.13	(5.1)	-8.17	(5.2)	-1.61	(4.1)	-10.18	(5.4)	**-14.08**	(4.2)	-10.58	(6.9)	-1.66	(4.4)	**-15.13**	(4.4)
Poland	**1.86**	(0.5)	**0.05**	(0.0)	-1.46	(4.3)	1.39	(4.7)	2.13	(3.8)	-4.55	(4.3)	-3.05	(3.2)	-2.16	(4.0)	5.63	(6.6)	-3.77	(3.4)
The Slovak Republic	**0.61**	(0.3)	0.03	(0.0)	3.80	(3.9)	-0.82	(3.7)	2.07	(3.2)	1.53	(3.7)	2.34	(3.0)	4.12	(3.5)	2.55	(3.8)	1.19	(2.9)
Sweden	**2.85**	(0.5)	**0.15**	(0.0)	0.43	(5.2)	-4.43	(6.0)	0.71	(4.1)	-3.05	(5.9)	-2.05	(4.3)	-7.91	(5.3)	-0.86	(4.1)	-2.70	(5.4)
The United States	**1.56**	(0.6)	**0.15**	(0.0)	0.57	(6.0)	-3.52	(5.4)	-2.56	(5.6)	-11.11	(5.9)	-6.49	(6.5)	0.00	(0.0)	-3.52	(6.1)	**-13.73**	(4.9)
Average	**2.10**	(0.1)	**0.08**	(0.0)	**3.20**	(1.0)	0.54	(1.0)	-0.43	(0.8)	**-2.45**	(1.0)	**-3.38**	(0.8)	**-2.56**	(1.2)	**2.01**	(0.9)	**-2.70**	(0.9)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.
Regression controlling for gender, parental educational attainment and age. Individuals 25+ working.

Table A9a. The origins of the educational gradient in levels of interpersonal trust - being careful dimension

	Difference in the proportion of working adults (age 25-65) who disagrees or strongly disagrees with the statement "If you are not careful, other people will take advantage of you"																					
	Educational attainment gradient						Educational attainment gradient, controlling for literacy								Educational attainment gradient, controlling for literacy and teamwork									
	Upper secondary		Tertiary degree,		University graduate		Upper secondary		Tertiary degree,		University graduate		Literacy		Upper secondary		Tertiary degree,		University graduate		Literacy		Teamwork	
					Proportion	SE																		
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	1.22	(1.6)	**5.67**	(2.3)	**14.74**	(2.2)	0.14	(1.6)	4.07	(2.3)	**12.30**	(2.2)	**0.05**	(0.0)	-0.46	(1.4)	3.18	(2.5)	**11.99**	(2.2)	**0.05**	(0.0)	2.56	(1.4)
Austria	**7.30**	(2.1)	**13.59**	(2.9)	**18.95**	(2.9)	**4.37**	(2.1)	**8.99**	(2.9)	**12.40**	(3.0)	**0.12**	(0.0)	4.00	(2.1)	**9.09**	(3.3)	**12.86**	(3.2)	**0.12**	(0.0)	1.87	(1.4)
Flemish Community of Belgium	**7.78**	(1.7)	**16.34**	(2.3)	**24.14**	(2.6)	**6.78**	(1.7)	**14.28**	(2.6)	**21.55**	(3.0)	0.04	(0.0)	**6.14**	(1.9)	**14.61**	(2.8)	**21.81**	(3.1)	0.03	(0.0)	1.71	(1.7)
English Speaking Community of Canada	0.75	(2.2)	3.12	(2.3)	**8.02**	(2.4)	-0.47	(2.2)	1.55	(2.3)	**5.91**	(2.5)	**0.03**	(0.0)	-2.14	(2.5)	0.41	(2.7)	3.90	(2.8)	**0.03**	(0.0)	0.12	(1.2)
French Speaking Community of Canada	2.10	(2.5)	**9.53**	(2.9)	**19.19**	(2.9)	0.26	(2.7)	**7.04**	(3.1)	**15.67**	(3.2)	**0.05**	(0.0)	0.07	(2.8)	**7.96**	(3.4)	**16.21**	(3.5)	0.04	(0.0)	-2.60	(1.6)
The Czech Republic	-1.97	(2.2)	-3.70	(3.3)	4.36	(2.6)	-2.99	(2.3)	-5.72	(3.3)	1.96	(2.7)	**0.05**	(0.0)	-2.88	(2.4)	-5.41	(3.6)	1.41	(3.1)	0.04	(0.0)	0.90	(1.3)
Germany	0.69	(1.4)	**5.22**	(2.0)	**8.88**	(2.1)	-1.55	(1.6)	2.05	(2.1)	4.68	(2.5)	**0.06**	(0.0)	-1.60	(1.6)	0.83	(2.3)	4.33	(2.5)	**0.06**	(0.0)	-0.11	(1.0)
Denmark	**9.97**	(2.2)	**28.35**	(2.2)	**28.96**	(2.6)	**6.42**	(2.3)	**21.62**	(2.4)	**20.87**	(2.6)	**0.17**	(0.0)	**5.81**	(2.3)	**22.33**	(2.5)	**21.26**	(2.8)	**0.16**	(0.0)	**3.59**	(1.7)
England	**4.66**	(2.2)	**9.81**	(3.0)	**14.65**	(2.4)	2.95	(2.3)	**7.68**	(3.1)	**11.73**	(2.6)	**0.06**	(0.0)	2.49	(2.5)	**7.22**	(3.2)	**11.56**	(2.8)	**0.06**	(0.0)	2.10	(1.4)
Spain	**6.95**	(2.2)	2.61	(2.1)	**14.34**	(1.8)	**6.83**	(2.2)	2.46	(2.2)	**14.06**	(2.4)	0.01	(0.0)	**6.06**	(2.4)	1.45	(2.3)	**13.78**	(2.5)	0.01	(0.0)	0.59	(1.5)
Estonia	-2.32	(1.9)	-1.77	(2.0)	**5.91**	(2.4)	-3.22	(1.9)	-2.94	(2.0)	3.79	(2.3)	**0.05**	(0.0)	-2.93	(1.9)	-2.69	(2.0)	3.58	(2.4)	**0.04**	(0.0)	-1.55	(1.1)
Finland	6.07	(3.1)	**8.62**	(3.4)	**19.35**	(3.2)	**6.35**	(3.2)	**9.21**	(3.4)	**20.19**	(3.4)	-0.02	(0.0)	5.22	(3.2)	**7.03**	(3.6)	**19.19**	(3.6)	-0.02	(0.0)	2.60	(1.8)
France	**2.89**	(1.3)	**7.92**	(1.8)	**17.59**	(1.9)	1.95	(1.3)	**6.15**	(2.0)	**15.56**	(2.2)	**0.03**	(0.0)	**2.79**	(1.4)	**7.20**	(2.1)	**16.26**	(2.3)	**0.03**	(0.0)	1.78	(1.1)
Ireland	2.67	(2.0)	3.96	(2.2)	**8.37**	(2.3)	2.00	(2.1)	3.01	(2.3)	**6.98**	(2.4)	0.02	(0.0)	1.97	(2.2)	3.39	(2.3)	**6.43**	(2.5)	0.04	(0.0)	0.75	(1.7)
Italy	**4.13**	(1.1)	**-4.57**	(0.9)	**12.48**	(1.9)	**3.87**	(1.2)	**-4.83**	(0.9)	**12.08**	(2.0)	0.01	(0.0)	**3.90**	(1.4)	**-4.84**	(1.2)	**13.10**	(2.3)	0.02	(0.0)	2.28	(1.2)
Japan	4.24	(3.4)	**7.84**	(3.2)	**16.82**	(3.5)	3.09	(3.4)	6.06	(3.3)	**13.84**	(3.8)	**0.06**	(0.0)	2.57	(3.6)	5.60	(3.4)	**13.86**	(4.0)	0.05	(0.0)	3.13	(1.7)
Korea	0.97	(1.7)	1.32	(2.2)	4.72	(2.5)	0.81	(1.8)	1.08	(2.4)	4.40	(2.8)	0.01	(0.0)	1.68	(1.9)	1.69	(2.6)	5.36	(3.0)	0.00	(0.0)	-0.31	(1.4)
Northern Ireland	1.71	(2.2)	3.33	(3.0)	**9.02**	(2.6)	0.89	(2.6)	2.27	(3.3)	**7.42**	(3.1)	0.03	(0.0)	1.26	(3.0)	-0.30	(3.1)	**7.47**	(3.5)	0.03	(0.0)	2.25	(1.8)
The Netherlands	**6.00**	(1.6)	**14.65**	(4.3)	**23.96**	(2.0)	2.52	(1.8)	**9.82**	(4.4)	**17.23**	(2.4)	**0.13**	(0.0)	3.40	(1.8)	**11.63**	(4.4)	**17.93**	(2.5)	**0.12**	(0.0)	**-4.00**	(1.4)
Norway	**4.68**	(2.4)	**20.00**	(4.3)	**22.35**	(2.1)	2.69	(2.3)	**15.22**	(4.4)	**15.89**	(2.3)	**0.16**	(0.0)	2.46	(2.4)	**16.67**	(4.6)	**16.49**	(2.4)	**0.16**	(0.0)	1.16	(1.7)
Poland	-2.38	(2.2)	c	c	1.74	(2.3)	-3.13	(2.2)	c	c	-0.16	(2.3)	0.03	(0.0)	-4.34	(2.4)	c	c	-1.69	(2.5)	**0.04**	(0.0)	-1.51	(1.3)
The Slovak Republic	1.90	(2.3)	c	c	3.39	(2.5)	1.46	(2.3)	c	c	2.69	(2.7)	0.02	(0.0)	1.50	(2.3)	c	c	3.03	(2.7)	0.02	(0.0)	-0.71	(1.1)
Sweden	0.49	(3.1)	**7.93**	(3.9)	**15.09**	(3.5)	-3.02	(3.2)	2.31	(4.0)	**7.86**	(3.9)	**0.13**	(0.0)	-2.88	(3.3)	4.09	(4.0)	7.70	(4.0)	**0.13**	(0.0)	3.06	(2.0)
The United States	-0.40	(2.6)	1.00	(3.3)	**6.53**	(2.7)	0.14	(2.6)	1.71	(3.5)	**7.44**	(2.9)	-0.01	(0.0)	-0.72	(2.7)	1.66	(3.7)	**7.27**	(3.1)	-0.01	(0.0)	0.41	(1.2)
Average	**2.69**	(0.5)	**6.70**	(0.6)	**12.56**	(0.5)	**1.50**	(0.5)	**4.72**	(0.6)	**9.99**	(0.6)	**0.05**	(0.0)	**1.20**	(0.5)	**4.62**	(0.7)	**9.80**	(0.6)	**0.05**	(0.0)	**0.75**	(0.3)

Source: PIAAC 2012 Database.Regression controlling for gender, parental educational attainment and age.
Regression controlling for gender, parental educational attainment and age.

Table A9b. The origins of the educational gradient in levels of interpersonal trust - being careful dimension

	Difference in the percentage of working adults (age 25-65) who disagrees or strongly disagrees with the statement "If you are not careful, other people will take advantage of you"																							
	Educational attainment gradient								Educational attainment gradient, controlling for literacy and reading and writing at home and at work															
	Upper secondary non-		Tertiary degree,		University graduate		Literacy		Upper secondary		Tertiary degree,		University graduate		Literacy		Reading at home		Reading at work		Writing at home		Writing at work	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	0.14	(1.6)	4.07	(2.3)	**12.30**	(2.2)	**0.05**	(0.0)	1.78	(1.5)	**5.12**	(2.2)	**12.67**	(2.3)	**0.06**	(0.0)	-0.97	(1.0)	0.55	(0.9)	0.83	(0.9)	0.46	(0.8)
Austria	**4.37**	(2.1)	**8.99**	(2.9)	**12.40**	(3.0)	**0.12**	(0.0)	1.69	(2.9)	6.19	(3.4)	**8.84**	(3.4)	**0.12**	(0.0)	1.52	(1.4)	0.58	(1.1)	-0.17	(1.2)	0.75	(1.0)
Flemish Community of Belgium	**6.78**	(1.7)	**14.28**	(2.6)	**21.55**	(3.0)	0.04	(0.0)	**7.21**	(2.5)	**12.73**	(3.4)	**19.08**	(3.6)	0.03	(0.0)	0.14	(1.3)	**3.31**	(1.1)	-0.61	(1.1)	0.45	(1.0)
English Speaking Community of Canada	-0.47	(2.2)	1.55	(2.3)	**5.91**	(2.5)	**0.03**	(0.0)	1.68	(2.7)	2.52	(2.8)	**6.63**	(3.0)	**0.04**	(0.0)	-0.50	(0.9)	0.30	(0.7)	0.63	(0.7)	0.45	(0.6)
French Speaking Community of Canada	0.26	(2.7)	**7.04**	(3.1)	**15.67**	(3.2)	**0.05**	(0.0)	0.21	(3.5)	7.70	(4.2)	**15.07**	(3.9)	**0.07**	(0.0)	-0.95	(1.3)	1.18	(1.2)	0.06	(1.0)	0.96	(1.1)
The Czech Republic	-2.99	(2.3)	-5.72	(3.3)	1.96	(2.7)	**0.05**	(0.0)	-5.30	(2.9)	**-7.78**	(3.7)	-0.25	(3.3)	**0.06**	(0.0)	-0.13	(1.1)	0.60	(0.7)	0.55	(0.7)	-0.65	(0.9)
Germany	-1.55	(1.6)	2.05	(2.1)	4.68	(2.5)	**0.06**	(0.0)	-0.06	(1.8)	3.29	(2.3)	**6.23**	(2.6)	**0.05**	(0.0)	1.65	(0.9)	-0.54	(0.8)	-0.70	(0.8)	0.70	(0.8)
Denmark	**6.42**	(2.3)	**21.62**	(2.4)	**20.87**	(2.6)	**0.17**	(0.0)	3.92	(2.8)	**17.51**	(2.9)	**16.53**	(3.2)	**0.15**	(0.0)	0.44	(1.6)	**3.37**	(1.5)	0.72	(1.4)	1.02	(1.1)
England	2.95	(2.3)	**7.68**	(3.1)	**11.73**	(2.6)	**0.06**	(0.0)	**4.63**	(2.3)	**7.88**	(3.0)	**11.95**	(2.4)	**0.06**	(0.0)	0.94	(1.1)	-0.07	(1.1)	0.03	(1.1)	1.12	(0.8)
Spain	**6.83**	(2.2)	2.46	(2.2)	**14.06**	(2.4)	0.01	(0.0)	**7.63**	(2.8)	2.16	(2.9)	**11.23**	(3.1)	0.01	(0.0)	1.94	(1.3)	1.87	(1.2)	-1.49	(1.1)	-1.11	(1.2)
Estonia	-3.22	(1.9)	-2.94	(2.0)	3.79	(2.3)	**0.05**	(0.0)	0.44	(2.1)	-1.17	(2.4)	**5.35**	(2.7)	**0.07**	(0.0)	-0.92	(0.9)	**2.74**	(0.7)	1.01	(0.7)	-1.12	(0.7)
Finland	**6.35**	(3.2)	**9.21**	(3.4)	**20.19**	(3.4)	-0.02	(0.0)	6.42	(3.5)	**9.17**	(3.8)	**18.94**	(4.0)	-0.01	(0.0)	-1.53	(1.8)	1.55	(1.6)	-0.48	(1.3)	**3.27**	(1.2)
France	1.95	(1.3)	**6.15**	(2.0)	**15.56**	(2.2)	**0.03**	(0.0)	2.87	(1.7)	**5.04**	(2.1)	**13.39**	(2.3)	**0.05**	(0.0)	**2.30**	(1.1)	0.43	(1.0)	0.04	(0.8)	0.89	(0.7)
Ireland	2.00	(2.1)	3.01	(2.3)	**6.98**	(2.4)	0.02	(0.0)	3.81	(2.3)	4.21	(2.5)	**7.18**	(2.5)	0.01	(0.0)	0.76	(1.3)	1.15	(1.2)	0.49	(0.9)	0.53	(0.8)
Italy	**3.87**	(1.2)	**-4.83**	(0.9)	**12.08**	(2.0)	0.01	(0.0)	**4.46**	(1.7)	**-4.60**	(1.9)	**12.55**	(2.3)	0.01	(0.0)	0.62	(1.0)	-0.92	(0.8)	1.89	(1.0)	0.36	(1.0)
Japan	3.09	(3.4)	6.06	(3.3)	**13.84**	(3.8)	**0.06**	(0.0)	4.79	(4.3)	**9.40**	(3.8)	**15.51**	(4.5)	**0.08**	(0.0)	-2.23	(1.6)	0.87	(1.3)	**-2.43**	(1.1)	0.32	(1.0)
Korea	0.81	(1.8)	1.08	(2.4)	4.40	(2.8)	0.01	(0.0)	-1.17	(2.9)	-2.17	(3.7)	1.32	(3.7)	0.00	(0.0)	1.44	(1.0)	0.60	(1.1)	-0.89	(0.7)	0.93	(0.7)
Northern Ireland	0.89	(2.6)	2.27	(3.3)	**7.42**	(3.1)	0.03	(0.0)	-2.12	(3.1)	-2.10	(3.5)	4.42	(3.3)	0.02	(0.0)	-1.50	(1.4)	2.03	(1.5)	0.39	(1.3)	0.87	(1.0)
The Netherlands	2.52	(1.8)	**9.82**	(4.4)	**17.23**	(2.4)	**0.13**	(0.0)	2.01	(2.2)	8.82	(4.7)	**15.28**	(2.9)	**0.13**	(0.0)	**-2.68**	(1.3)	1.94	(1.4)	**2.32**	(1.2)	0.57	(1.1)
Norway	2.69	(2.3)	**15.22**	(4.4)	**15.89**	(2.3)	**0.16**	(0.0)	2.91	(2.6)	**15.48**	(4.5)	**14.59**	(2.7)	**0.17**	(0.0)	2.73	(1.4)	-2.07	(1.6)	-0.63	(1.1)	**2.95**	(1.1)
Poland	-3.13	(2.2)	c	c	-0.16	(2.3)	0.03	(0.0)	-8.42	(5.7)	c	c	-7.61	(5.9)	**0.05**	(0.0)	0.92	(1.0)	-0.23	(1.0)	0.57	(1.0)	0.79	(0.7)
The Slovak Republic	1.46	(2.3)	c	c	2.69	(2.7)	0.02	(0.0)	-6.61	(5.1)	c	c	-5.29	(5.1)	0.00	(0.0)	1.94	(1.2)	-0.13	(1.0)	-0.68	(0.7)	-0.22	(0.6)
Sweden	-3.02	(3.2)	2.31	(4.0)	**7.86**	(3.9)	**0.13**	(0.0)	-1.02	(3.5)	2.69	(4.4)	**8.92**	(4.1)	**0.14**	(0.0)	-2.86	(1.7)	3.34	(1.9)	-1.88	(1.5)	0.81	(1.6)
The United States	0.14	(2.6)	1.71	(3.5)	**7.44**	(2.9)	-0.01	(0.0)	0.49	(3.2)	1.17	(4.2)	6.10	(3.6)	0.01	(0.0)	0.39	(1.2)	1.39	(1.1)	1.06	(0.8)	-0.37	(1.0)
Average	**1.63**	(0.5)	**5.14**	(0.6)	**10.68**	(0.6)	**0.05**	(0.0)	**1.34**	(0.6)	**4.69**	(0.7)	**9.11**	(0.7)	**0.06**	(0.0)	0.14	(0.3)	**0.99**	(0.2)	0.03	(0.2)	**0.61**	(0.2)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.
Regression controlling for gender, parental educational attainment and age. Individuals 25+ working.

Table A9c. Field of study and levels of interpersonal trust - being careful dimension

	Difference in the percentage of working adults (age 25-65) who disagrees or strongly disagrees with the statement "If you are not careful, other people will take advantage of you"																			
	Years of education		Literacy		Teacher training		Humanities,		Social sciences,		Science,		Engineering,		Agriculture and		Health and welfare		Services	
	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE	% point dif.	SE
Australia	**2.19**	(0.7)	**0.07**	(0.0)	**8.35**	(3.7)	1.50	(3.8)	1.07	(2.6)	-3.01	(3.4)	-4.11	(2.1)	-3.75	(5.3)	3.90	(3.6)	-0.32	(3.7)
Austria	**1.54**	(0.5)	**0.12**	(0.0)	1.36	(5.6)	-7.77	(6.6)	**-9.50**	(4.0)	-11.51	(6.8)	**-11.62**	(3.7)	**-9.45**	(4.4)	-4.37	(4.7)	**-10.67**	(3.9)
Flemish Community of Belgium	**3.20**	(0.6)	**0.06**	(0.0)	-4.63	(4.2)	-7.79	(4.2)	-4.28	(3.1)	**-7.93**	(3.7)	-5.51	(3.1)	-5.72	(5.6)	1.26	(4.4)	-4.06	(3.9)
English Speaking Community of Canada	**1.11**	(0.4)	**0.04**	(0.0)	4.83	(2.9)	0.29	(2.6)	0.79	(2.1)	-1.66	(2.5)	-0.22	(1.9)	-3.47	(4.9)	**5.32**	(2.5)	**-4.59**	(1.8)
French Speaking Community of Canada	**2.97**	(0.6)	**0.06**	(0.0)	7.62	(4.4)	0.35	(3.2)	0.04	(3.2)	-2.23	(3.1)	2.19	(3.7)	-1.99	(6.2)	2.39	(4.0)	-1.36	(2.7)
The Czech Republic	**0.75**	(0.3)	0.03	(0.0)	7.27	(4.2)	2.92	(5.1)	**3.81**	(1.6)	0.45	(3.2)	0.69	(1.3)	1.65	(2.0)	13.22	(6.9)	**5.46**	(2.2)
Germany	**1.46**	(0.4)	**0.05**	(0.0)	-3.66	(5.5)	-7.59	(5.6)	-5.49	(5.3)	-7.84	(4.7)	-6.37	(4.9)	-10.12	(5.2)	-2.32	(5.3)	-5.97	(5.4)
Denmark	**2.87**	(0.4)	**0.17**	(0.0)	**10.64**	(4.1)	-6.47	(4.4)	-1.46	(4.1)	-4.19	(4.7)	-4.59	(3.4)	-1.69	(5.2)	**8.61**	(3.5)	-5.94	(3.6)
England	**1.50**	(0.4)	**0.06**	(0.0)	5.20	(4.2)	2.23	(2.4)	3.89	(2.5)	2.97	(3.1)	-2.04	(2.7)	-2.82	(6.0)	**6.93**	(3.2)	c	c
Spain	**2.16**	(0.6)	-0.01	(0.0)	8.08	(5.5)	2.62	(4.5)	1.17	(4.0)	2.75	(4.0)	0.88	(3.9)	3.93	(8.4)	1.59	(4.5)	3.01	(7.2)
Estonia	**1.32**	(0.3)	**0.06**	(0.0)	-2.29	(2.6)	-1.72	(3.1)	1.45	(1.8)	-4.03	(3.1)	**-3.43**	(1.2)	-3.80	(2.0)	1.12	(2.7)	**-3.33**	(1.6)
Finland	**1.64**	(0.4)	0.00	(0.0)	**13.56**	(5.7)	3.14	(4.8)	2.46	(4.3)	10.75	(6.8)	4.14	(3.9)	7.91	(5.2)	8.13	(4.4)	-1.66	(4.6)
France	**2.55**	(0.3)	**0.04**	(0.0)	5.33	(4.1)	1.71	(3.8)	-2.41	(2.6)	**-7.50**	(2.6)	-0.20	(2.4)	-1.91	(3.8)	0.17	(2.6)	-3.30	(2.4)
Ireland	**1.51**	(0.6)	0.03	(0.0)	5.66	(4.0)	7.34	(4.3)	2.83	(3.6)	2.22	(3.8)	5.54	(3.3)	-1.79	(4.9)	1.49	(3.2)	2.57	(4.4)
Italy	**1.22**	(0.3)	0.01	(0.0)	-1.52	(4.6)	1.62	(3.8)	-2.15	(3.6)	-2.71	(3.3)	**-5.56**	(2.8)	-3.05	(5.2)	4.09	(4.7)	-6.15	(3.2)
Japan	**2.42**	(0.5)	**0.07**	(0.0)	0.80	(3.3)	4.76	(4.3)	-0.98	(3.1)	-9.81	(5.8)	-4.59	(2.5)	-5.95	(4.7)	0.80	(4.6)	-6.22	(4.7)
Korea	**1.27**	(0.5)	-0.01	(0.0)	-4.56	(3.3)	-0.92	(2.8)	-3.03	(2.3)	-4.64	(2.4)	-3.69	(2.0)	**-8.25**	(2.2)	-3.48	(3.5)	-6.01	(3.9)
Northern Ireland	0.51	(0.4)	0.02	(0.0)	**11.48**	(5.7)	**7.24**	(3.5)	3.95	(2.5)	4.47	(3.4)	3.33	(3.2)	-3.67	(2.8)	1.23	(3.4)	c	c
The Netherlands	**3.88**	(0.7)	**0.14**	(0.0)	-0.41	(4.7)	-2.53	(5.9)	-4.63	(3.7)	**-10.40**	(4.4)	**-11.14**	(4.1)	-6.89	(5.9)	-2.03	(3.7)	-5.45	(5.9)
Norway	**2.39**	(0.5)	**0.19**	(0.0)	-0.77	(4.2)	1.23	(4.4)	-1.24	(3.4)	-7.88	(5.1)	**-8.44**	(3.6)	-4.20	(5.3)	2.60	(4.2)	-4.53	(4.5)
Poland	0.53	(0.3)	**0.04**	(0.0)	1.54	(3.5)	-2.23	(3.3)	-0.85	(2.4)	-3.07	(2.4)	-0.56	(1.9)	3.42	(3.0)	1.85	(4.7)	-1.12	(2.1)
The Slovak Republic	0.18	(0.4)	0.01	(0.0)	4.51	(3.2)	0.74	(3.4)	0.76	(2.5)	4.70	(3.5)	2.95	(2.0)	**7.34**	(3.1)	5.66	(3.3)	3.01	(2.5)
Sweden	**1.72**	(0.6)	**0.14**	(0.0)	-0.11	(5.1)	-3.26	(5.4)	-4.30	(4.1)	-5.25	(5.7)	-4.42	(4.4)	-12.36	(7.0)	1.70	(4.8)	-3.36	(5.8)
The United States	0.68	(0.5)	0.00	(0.0)	**8.63**	(3.8)	**10.79**	(2.9)	**9.19**	(3.0)	6.08	(3.3)	3.08	(3.1)	c	c	5.71	(3.3)	-1.95	(3.2)
Average	**1.73**	(0.1)	**0.06**	(0.0)	**3.62**	(0.9)	0.34	(0.9)	-0.37	(0.7)	**-2.47**	(0.8)	**-2.24**	(0.6)	**-2.78**	(1.0)	**2.73**	(0.8)	**-2.58**	(0.8)

Source: PIAAC 2012 Database. Values that are statistically significant (5%) are denoted in bold.
Regression controlling for gender, parental educational attainment and age. Individuals 25+ working.