

Labour market benefits of adult education from a global perspective

Abstract

This article outlines some recent evidence on the labour market outcomes of adult education from a global perspective. Evidence supports the idea that adult education has positive impacts on a wide range of labour market outcomes, including enhanced: employment and career prospects; performance and earnings; job satisfaction and commitment to work; and, innovative capacities. While evidence is widespread, it is also fragmented and incomplete which does not bode well for sustained support and investment in adult education. Moreover, some findings suggest that positive outcomes do not arise in all situations. A number of key contextual and structural factors are discussed which are helpful for contextualizing and interpreting the evidence and for understanding some of the reasons for systemic underinvestment in adult education. The article concludes with some implications for adult education research, policy and practice, including a need to foster a balanced evidence base to inform policy, as well as to insitutionalize flexible and diversified adult education provision structures that recognize and value all kinds of adult education and learning.

Keywords

GRALE, investment in adult education, labour market outcomes of adult education, benefits of adult education

Introduction

Theoretical reasoning that is well supported by empirical research suggests that education and learning boost skills, and in turn employability, productivity, wages and growth. Yet, most countries are characterized by systemic underinvestment in adult education opportunities, especially among adults with inadequate levels of skills and qualifications. As a consequence, unskilled and poorly qualified adults remain disadvantaged in the labour market, and nations with large sections of the population that are unskilled experience challenging economic and social problems. This brings into question the level of awareness and perception of the potential benefits of adult education on the labour market.

OECD (2007) noted some of the difficulties of measuring and communicating the actual and potential benefits of adult education within a coherent framework. The well-known theory of human capital provides a robust framework for both the scientific and policy analysis of the links between education, learning and labour market outcomes. Tens of thousands of analyses within this framework have been conducted since the 1960s which provide supporting evidence for the potentially positive labour market impacts of adult education. However, the majority of studies have focused on formal qualifications in terms of years of schooling. In this regard, more is known about the outcomes associated with formal qualifications rather than adult education (Feinstein et al. 2004), although the two are becoming increasingly linked in the highest income countries where adult education is increasingly a path to the attainment of recognized qualifications (Desjardins & Lee 2015). Importantly, much less is known about the conditions needed to secure favourable outcomes. Moreover, all kinds of risks abound which negatively affect incentives to invest in adult education (UIL 2009). In other words, it is becoming clear that investment in adult education and the possible benefits are not automatic. Rather they appear to depend on institutional and public policy frameworks that foster investment and good overall labour market functioning.

Most of the available evidence on the labour market outcomes of adult education is fragmented and incomplete; two conditions which are undoubtedly unfavourable in political contexts, where not all parties necessarily have an interest in extending opportunities to the unskilled or unqualified and resources continue to be perpetually constrained in the face of other competing priorities. Accordingly, understanding better the potential labour market outcomes of adult education but most of all the conditions needed to secure favourable outcomes is thought to be essential for moving forward for promoting sustainable economic development and wellbeing of all kinds. Adult education has important impacts on a wide set of outcomes ranging from personal and social wellbeing, but its impact on the economy and the labour market is particularly crucial for securing adequate levels and distribution of resources consistent with our care for human and social conditions.

This article outlines some recent evidence on the labour market outcomes of adult education from a global perspective. The evidence is widespread but is fragmented and incomplete which does not

bode well for sustained support and investment in adult education. A number of key contextual and structural factors are discussed which are helpful for contextualizing and interpreting the evidence and for understanding some of the reasons for systemic underinvestment in adult education. The article concludes with some implications for adult education research, policy and practice.

Overall trends in perceptions of labour market outcomes of adult education

Outcomes of adult education are related to the topic of financing more generally but labour market outcomes are especially relevant since many of these have direct and quantifiable monetary implications for individuals, firms and the public purse. Most importantly, they have direct consequences on life chances for individuals and the economic viability and success of firms and nations. As such, labour market outcomes can be a powerful motivator for individuals to undertake adult education, and for firms and governments to support and finance adult education. Evidence of, or even the perception of, outcomes can thus affect the investment behaviour of individuals, firms, and government officials and hence the level and distribution of financing related to adult education. Financing was an important topic of concern in the UNESCO Global Report on Adult Learning and Education (GRALE) I, II and III and remains a central part of the monitoring agenda set out in the Belem framework¹. The following elaborates on such trends in relation to the labour market outcomes of adult education.

Trends in investment in adult education provide a good basis for ascertaining the perception of outcomes associated with adult education, regardless of whether these are evidence based or not. This follows from the well-known *expectancy valence theory* in adult education (Rubenson 1977), which suggests that behaviour of individuals in relation to the take-up of adult education is directly influenced by the expected rewards of undertaking an adult education occurrence. On this basis,

¹ The UNESCO Global Report on Adult Learning and Education (GRALE) provides a clear and comprehensive picture of the state of adult learning and education around the world. GRALE I conducted in 2009 served as a central input for discussions at the International Conference on Adult Education (CONFINTEA VI) in Belém, Brazil. GRALE II and III assessed progress in implementing the 2009 Belém Framework for Action, which records the commitments of Member States made at CONFINTEA VI and presents a strategic guide for the global development of adult literacy and adult education.

low adult education activity can be seen as evidence of low expectations regarding the labour market benefits of adult education and vice versa higher adult education activity can be seen as evidence of higher expectations.

Overall, public spending on adult education is low in the majority of countries around the world which does not bode well as evidence of high expectations for the labour market benefits of adult education. Estimates suggest that for the majority of countries, public spending on adult education is well below the 3% of public education budgets that is recommended by the Global Campaign for Education (which presumes that 6% of GDP is spent on education and 15% of public budgets are allocated to education) (Global Campaign for Education 2005). Many governments typically only allocate 1% of the public education budget to adult education activities and most allocate a tiny proportion of this (i.e. 0.01%) (Archer 2007; UIL 2009). On this basis, very few countries show a strong commitment to public investment in education and training of all adults. The ones who do tend to follow through with high investment in education more generally as a proportion of GDP, which is at least as high as the recommended 6%. Only a small number of countries show percentages at or above these recommendations. Finland is one example where statistics reveal that about 10% of the public education budget is allocated to financing adult education. This is among the highest rates of investment in adult education in the world by any government. It is worthwhile to point out that Finland also happens to feature among the highest and widely distributed levels of foundation skills such as literacy, numeracy and problem solving skills in the context of technology rich environments among its adults population (OECD 2013), and not least among the highest and widely distributed levels of investment in adult education for job-related reasons (OECD 2011).

Despite attempts to pinpoint estimates of spending on adult education, in reality it is very difficult to do so in a comparative manner with reliable data. This is partly due to the diffuse arrangements and configurations underlying adult education provision in different countries. As an example, the above estimate on public investment in adult education does not include a recent development in many high income countries, namely a further opening up of formal education systems to non-traditional students. In a number of countries, there is a high and increasing number of adult

students well beyond the normative age who are in higher education, which can be characterized as a type of formal adult education. PIAAC data confirm that the proportion is non-trivial with about half of the participating countries (10 countries) featuring ratios of adults who attain a higher education qualification within and beyond the normative age that range between 3:1 and 5:1 (i.e. for every 3 to 5 HE graduates, depending on country, one adult has completed their qualification beyond the normative age) (Desjardins & Lee 2015). This implies that the growth of HE systems in high income countries over the last two decades is strongly associated with the growth of formal adult education activity. Thus public spending on adult education in these countries has benefited from the expansion of the HE system.

Moreover, public spending is only one indicator of government expectations regarding the labour market benefits of adult education. Many governments through active policy making recognize that they have a strong role to play in supporting adult education, but nevertheless seek to broaden financial responsibility for adult education and promote cost sharing through co-financing mechanisms involving all stakeholders (OECD 2005). An aim is to expand adult education but limit the role of government financing because there is a realization that the public purse cannot do it alone. Within public policy frameworks, co-financing arrangements are often designed to circumvent the misalignment of incentives among those who stand to gain, and mitigate risks associated with investing in adult education (OECD 2003). But for some governments, co-financing mechanisms can be a convenient way to shift responsibilities from the public domain to the private sector and attempt to compensate for a lack of commitment to its public responsibilities for investing in adult education. National reports from GRALE I² (UIL 2010) reveal a mixed picture with regard to how this trend and its concomitant tools are being adopted into national contexts. While some governments are increasingly keen to play a role in fostering competitiveness among firms and the employability of adults, others are more obstinate or neutral. In some countries, the continuous upgrading of the workforce is viewed as the responsibility of employers or employee

² The process surrounding the production of the UNESCO Global Report on Adult Learning and Education (GRALE) I included the production of five regional synthesis reports and the submission of 154 national reports by Member States to the UNESCO Institute for Lifelong Learning.

organizations, not government. Accordingly, there is heavier reliance on private sources which are driven by a market mechanism (for example, Japan, USA), even though adult education is otherwise susceptible to market failures. In contrast, some countries maintain a strong tradition of direct government involvement, which seeks to establish shared responsibilities among the various stakeholders. Social partnership models are common in Northern and Central European countries (for example, Austria, Denmark, the Netherlands, Norway) in which public and private co-financing plays an important role. The market mechanism is avoided in favour of negotiated stakeholder agreements that commonly include strategic adult education funds.

Although causality is not certain, there is a strong correlation between aggregate adult education activity and aggregate labour market outcomes. According to PIAAC data, overall adult education activity is highest in higher income countries, ranging from about 30 to 65% of the adult population reporting that they participated in some kind of adult education activity in the preceding 12 months (Desjardins 2014). These comprise the Nordic countries, the Netherlands, Germany, US, UK, Canada and Australia. These are also the countries, which feature among the highest rates of employment and economic development. Other OECD countries report lower rates of adult education activity ranging from 15 to 30%, which corresponds with lower rates of employment and economic output. Among others, these comprise Italy, Spain, Slovak Republic and Poland. Fewer comparative data are available for non-OECD countries, but estimates range between 1 to 10% of adults who report having participated in any kind of adult education activity in the preceding 12 months (e.g. Vietnam and Brazil – see Desjardins (2014)).

Conditioned by system level characteristics such as the existence and prevalence of, as well as, access to, adult education opportunities, individual investment in adult education thus varies widely across countries. Importantly, in all of the countries for which data is available, 80-90% of adults who participate report doing so because for job-related reasons, namely to obtain a job, keep a job, get promoted or change to a better job. These data reveal the strong expectations that adults in high income countries harbour in relation to the labour market benefits of adult education. An important cross-national pattern is that it is adults who are already highly qualified that tend to

invest the most in adult education. Accordingly, some now recognized that stimulating demand for adult education among disadvantaged adults is perhaps the most challenging issue for public policy.

Revealing the expectations of firms in relation to the labour market benefits of adult education, available data show that most of the overall adult education activity in high-income countries is employer supported. In PIAAC participating countries, the majority of adult education activity is employer financed falling in the 60 to 85 % range, depending on the country. Countries with the highest level of employer support are also those who show the highest overall adult education activity. Employer investment in adult education however is not automatic or inevitable. As an example, it was highlighted in the GRALE I National Report for Georgia that it was not until recently that firms realized the significance of investing in adult education for their employees to maintain economic viability (UIL 2008). Contextual and structural factors thus matter, for example, OECD (2005) reported that firms who tend to invest the most in adult education are the largest firms who operate in global and competitive markets and experience higher rates of organizational and product innovation. It is therefore, no surprise that most employer supported adult education activity is focused on those who are knowledge workers and already have recognized qualifications. Trends suggest that individual and employer expectations for the labour market benefits of adult education have grown in recent years. This is because overall adult education activity has grown considerably in most high-income countries over the last two decades, much of which is for job-related reasons. Moreover, employer supported adult education has grown at a faster pace than overall adult education activity suggesting that employers are increasingly viewing investment in adult education as part of their regular business activity (Desjardins, 2017). This trend combined with the tendency for the most advantaged adults to receive adult education opportunities poses a risk for exacerbating inequalities of access to adult education and in turn its concomitant labour market outcomes.

UNESCO Institute for Lifelong Learning (UIL) (2016: 94-97) reported data collected as part of the GRALE 3 monitoring survey conducted by UIL which confirmed the very high expectations that are held with regard to the labour market benefits of adult education. The data showed opinions on the potential impact of adult education on labour market outcomes by level of income of countries:

high, medium and low. Results revealed lower expectations in low-income countries, which is consistent with lower estimates of overall adult education activity in those countries.

Evidence on labour market outcomes of adult education

Moving beyond the mere perception of the potential labour market benefits of adult education, an important question is whether there is any evidence that adult education actually leads to favourable labour market outcomes. Gaining an overview of the evidence is challenging due to the fragmented nature of what is available as well as the diverse disciplinary understandings and methodologies underlying the study of the relevant relationships. The latter are grounded in a panoply of related but parallel bodies of research literature, each with their own set of terminologies, theoretical and methodological understandings, and specific themes of interest (e.g. transitions to the labour market, human resource development, etc.). Moreover, the contexts in which the relationships are studied differ widely, invoking the need for a discussion on some of the key structural factors that can condition the relationship between adult education and labour market outcomes. The following provides a brief overview of some of the recent evidence of this relationship. Emphasis is placed on a range of studies which span the globe and are helpful not only for revealing insights into the conditions in which benefits arise, but also the circumstances where evidence suggests there are no, or even negative, effects.

Summary overview of evidence

Overall, there is ample evidence as will be discussed supporting the idea that adult education has positive impacts on a wide range of labour market outcomes, including enhanced: employment and career prospects; performance and earnings; job satisfaction and commitment to work; and, innovative capacities. However, there are also findings which suggest that is not necessarily the case in all situations. The labour market benefits of adult education are therefore not inevitable or automatic, and insights from research and evaluations are important for promoting better understandings of the conditions that may be necessary in order to secure the benefits of adult education.

Adult education is seen as a critical means to improving the skills of large sections of the population who are unskilled in many Sub-Saharan African countries. An important contextual factor in these

countries is the relatively large informal labour market, which is a cornerstone of national economies and of the livelihoods of a considerable proportion of the population (Adams et al. 2013). Moreover, in many African countries the formal training system in terms of training places, costs and accessibility is insufficient and fragile. In Malawi and Tanzania, this has led to apprenticeships in the informal sector to serve as one of the main providers of skills for the labour market. According to their empirical analysis, Aggarwal et al. (2010) found in Malawi that graduates of informal apprenticeships easily found jobs. Nubler et al. (2009) found similar effects in Tanzania in terms of employment effects but they also found that graduates earn more than double. Further, substantial additional premiums are found when informal apprentices go on to take further formal or non-formal training. In short, investment in informal apprenticeships and further training in contexts where the informal sector is predominant pays off in terms of labour market outcomes.

Findings suggest that impacts in Africa are also positive in the formal sector. Studying the earnings and productivity effects of training among enterprises in the formal sector in Kenya and Zambia, Rosholm et al. (2007), found that while formal training had a positive impact in Kenya, it was informal training that mattered most in Zambia. They also found that the effects were stronger for longer training durations and also within larger firms. It is important to recognize that returns to training are shared between employers and employees. That is, employers expect to gain from training their employees and not all returns show up in the wages of employees. This in part helps to explain why larger firms may be better positioned to offer premiums to employees who undertake training.

Social and cultural norms can impact the labour market outcomes of adult education. In Asia, gender differences can be particularly sharp in this regard. Nearly ten years ago Tan et al. (2007) noted the gender bias in India with regard to educational opportunities, highlighting that most industrial training institutes provide male-dominated courses (e.g. electronics and mechanics). Huge investments in VET programmes since then have aimed to promote labour market participation and livelihoods including for women. Maitra and Mani (2014) examined the labour market outcomes associated with a VET programme ran by NGOs in India which targeted women aged 18 to 39 in the tailoring industry. Using experimental methods, they found that the training programme not only

contributed to increases in the probability of employment among participants but boosted entrepreneurship and earnings. In other cases, there is evidence that labour market outcomes of adult education are stronger for women than men. Tan (2012) investigated the outcomes of VET training in Sri Lanka over the period 1992 to 2004 and found that training improved the probability for both men and women of obtaining full-time salaried employment and boosting earnings, but results were stronger for women. Not least, the training also promoted job search and attachment to the labour market.

However, a reemployment programme for housewives in Korea was found to be less successful. The participation rate of women in the labour market in Korea is well below the OECD average (OECD 2015). Even though the Korean government revised the former Equal Employment Act in 2007 to prohibit gender discrimination in hiring, wages and promotions, Jang et al. (2012) found that only 13% of women who participated in the reemployment programme between 2008 and 2011 found jobs within six months of programme completion. Of those who found a job, only a little more than half found regular (contract-type) employment whereas the others found only temporary jobs. Moreover, it was the younger and more educated women who found contract jobs. Results of training programmes thus depend on labour market conditions as well as wider societal norms.

In their analysis, the Department for Business Innovation and Skills (2013) in the UK found large and significant economic benefits associated with further education. They found that 35% of men and 29% of women report that they found a better job after having participated in further education, while 18% of men and 12% of women report that they received a promotion. About half of the men and 40 to 45% of women surveyed report that they received greater job security, improved their pay and promotion prospects and were now in jobs with greater responsibilities as a consequence of having undertaken adult education. Moreover, nearly 60% report greater job satisfaction. Similar results on the link between training and satisfaction are found for the UK by Jones et al. (2008) and for Germany by Georgellis and Lange (2007) as well as Schmidt (2007).

Job satisfaction is not only an important outcome from an individual perspective but also from an employer perspective because it is related to organizational commitment (Bartlett, 2001).

Organization commitment reflects the level of attachment felt toward the organization one is employed. The link between adult education and organizational commitment has been found in several countries. Ahmad and Bakar (2003) found a link in Malaysia with results showing a strong correlation between the availability of and support for training and overall organizational commitment. Similar results are found in Turkey by Bulut and Culha (2010) whose results revealed that all dimensions of training in their study affected employee commitment. Organizational commitment is a component of the employment relationship that is increasingly being recognized as a necessity for harnessing the emotional and creative energies of workers so as to innovate and produce quality goods and services.

A broader link between adult education and innovation was suggested by the CEDEFOP (2010). In their report, it was reported that countries who show the highest overall adult education activity are also the ones who exhibit the highest innovation performance. The correlation between adult education activity and innovation was found to be stronger than between HE attainment and innovation. This suggests that tertiary education itself may not be sufficient, and that it may need to be complemented with training including workplace learning for it to make a significant contribution to innovation.

The scope and nature of initiatives and programmes are important aspects to consider. Differences may arise between within-company training that is non-formal and wider programmes and initiatives which relate to more formal structures of education and training. Moreover, public policy interventions may target particular groups or may emphasize supply based or demand based measures to promoting access to certain kinds of labour market related training. Importantly, design and implementation features, particularly when programmes are large scale, can decidedly impact results. Chile implemented a large training voucher programme in 2011 aimed at strengthening the national training system, and in turn boost skills, employment and earnings. Grants were offered to low-wage working adults aged 18 to 60 to take up training courses at training organizations of their choice. No guidance was provided nor were there partnerships

forged, for example among providers, employers or unions, in connection to the programme.

Kaplan et al. (2015) report that only 30% of eligible adults participated and that the initiative did not have an impact on labour market outcomes as expected. Overall, small negative impacts on employment probabilities and earnings were found especially among adults who wanted to switch the sector in which they were employed. However, women as well as the least educated among those who participated were more likely to experience positive results. The results suggest that a laissez-faire demand induced initiative among disadvantaged workers without strategic purpose or coordination among the stakeholders may not have much impact. The Chilean experience is in sharp contrast to other countries where social partnerships in public policy initiatives are commonplace. For example, experience in Denmark and Norway have shown that stimulating demand and generating good results among the most disadvantaged workers largely depends on targeting, outreach, strategic purpose and partnerships (Desjardins, 2017). In India, a Public Private Partnership (PPP) initiative through the establishment of the National Skills Development Corporation in 2009, is characterised by a principled approach to provide funds to programmes that are market-oriented, that meet the standards that employers have subscribed to, and that lead to employment. They focus on expanding the coverage and capacity to upskill millions in India. The overwhelming response from the private sector to partner the NSDC is a clear proof of the fact that with a proper model in place, the public-private partnership approach can succeed (Chenoy 2013).

An initiative in Sweden entitled the Adult Education Initiative helps to reveal some of the unexpected outcomes that can be associated with large scale programmes. While positive labour market outcomes have been found as a consequence of the programme, the initiative did less to improve the earnings of those who completed the programme than it did to worsen the earnings of those who did not (Stenberg & Westerlund 2008; Albrecht et al. 2006; 2007; Ekström 2003). This points to important social phenomena where individual or group level effects do not guarantee aggregate effects, and as such results need to be carefully contextualized within the wider social and economic context in which programmes are implemented.

Contextualizing the evidence

There are several key contextual aspects that are relevant for understanding the potential labour market outcomes of adult education and also for interpreting the existing evidence and trends.

Three aspects are fleshed out here under the headings: social inequality, product market strategies, and recognition and status of adult education.

Social inequality

High levels of social inequality can impact the level and distribution of labour market outcomes associated with adult education in a number of ways. It can also have implications for how available evidence is interpreted.

Micro-level statistical evidence is particularly vulnerable to fallacies, especially if it is not interpreted within the wider economic and social context in which it was generated. To illustrate, it is useful to consider the relationship between qualifications and earnings. A strong substantive relationship between the two as suggested by human capital theory implies that large inequalities in either will be associated with high prospective individual returns for those who attain qualifications.

Moreover, this would imply potentially high levels of social inequality in terms of access to highly qualified jobs and its concomitant benefits such as social status, earnings, and standards of living more generally. This can be observed when comparing the rate of return to qualifications in countries with higher and lower prevalence of qualifications. In high-income countries, where the prevalence of qualifications is relatively higher, the average private rate of return to an additional year of education is found to be about 10%. In middle and low-income countries, the prevalence of qualifications is lower, implying that the reward to qualifications is expected to be higher. This is the case for example in Brazil – a country with a relatively high level of social inequality – where the average rate of return to an additional year of education is found to be twice as high as in high income countries (Carnoy et al. 2013).

All else being equal, this implies that micro-level statistical evidence may show greater impacts of adult education on labour market outcomes in more unequal societies. While greater impacts are good for individuals who succeed in obtaining better and higher paying jobs, the evidence may also be reflective of highly unequal societies and systemic underinvestment in education including adult education and skill development. Moreover, the benefits experienced by one individual may simply come at the expense of another in terms of positional competition for good paying jobs and higher

social status. That is, access to education or training that lead to recognized credentials may aid individuals climb the hierarchy of social relations rather than reflect substantive impacts such as on productivity. A key point here is that the search for evidence should go well beyond micro-level statistical evidence and involve qualitative accounts, as well as logical and structural forms of comparison at both the micro and macro levels. This is one reason why the context in which the labour market outcomes of adult education are evaluated must be carefully considered, taking account of the purpose, methodology and sectoral or other macro level factors. Notwithstanding, other micro-based methods such as observations of training on productivity gains at the company level show the benefits of adult education in terms of productivity or value enhancing effects (Barron et al. 1997). Moreover, investment in education and training has indeed been linked to economic growth at the macro level confirming the productivity effects of education and training (Hanushek et al. 2011).

Unequal power relations which are reflected by the degree of social inequality in a given context also matter for interpreting the evidence, especially in terms of how they translate into labour market practices and industrial relations. As mentioned, employees and employers share the potential gains associated with adult education, and depending on the context, the gain may not necessarily accrue to the individual in the form of higher wages. In fact, under exploitative and unregulated conditions, any added value caused by the adult education, for example in terms of product or process innovation, entrance into new markets, or other impacts, may accrue primarily to employers and remain in the hands of the employer. This makes it more difficult to observe labour market impacts of adult education on the basis of micro-level statistical research.

Moreover, power relations can directly affect working conditions which moderate the impact of adult education and workplace learning on labour market outcomes. At a time when positivism is on the rise in research and policy circles, skill formation is now often approached as though skills were disembodied and were not a function of social and power relations. But identity, involvement, commitment, and trust are key socially-related aspects that relate to skills development (Tan 2012; Schmidt 2007). High inequality and polarization in the workplace may therefore be consistent with a low-skills, low-trust model of production based on routinization, but may be an impediment to a

high-skill, high-trust model of production based on knowledge and innovation (Brown et al. 2001). While adult education may lead to tangible impacts in either of these contexts, there are clear implications for the extent, complexity and intensity of adult education which is necessary to secure labour market benefits in low skill vs high skill contexts.

Product market strategies

Product market strategies can have an impact on the extent and nature of adult education, and in turn be relevant for contextualizing the evidence on the labour market outcomes of adult education.

There is little doubt that productivity is crucial for sustaining and enhancing standards of living. Productivity can be driven by enhancing the value of goods or creating new ones (i.e. quality increases and innovation). This leads to quality-based competition which can lead to improved standards of living by driving up the value of products and services, and moving into new fields through innovation. Alternatively, productivity can be driven by efficiency gains which imply the production of the same goods but produced at a lower cost. This leads to price-based competition which can lead to efficiency gains, for example by producing standard products at lower cost. Competing on efficiency gains alone makes it more difficult to raise wages unless prices rise as well. However, prices are increasingly under pressure due to global competition, making it difficult to raise wages on the basis of price-based competition (Brown et al. 2001). Thus competition on efficiency alone may be insufficient to translate adult education and hence skill formation into enhanced and substantive labour market outcomes. This is because without rises in wages, benefits are less likely to accrue to individuals and be observed as evidence of labour market outcomes of adult education. All countries have some companies that compete primarily on price rather quality, but the extent and intensity of either product market strategy varies. Adult education may be an important means to achieve productivity gains under both strategies, but the extent, complexity and intensity of adult education will differ, as will the level of labour market outcomes. Under circumstances which may foster price-based competition, employers may have little incentive to invest in adult education. Low-skill equilibria can ensue if the majority of employers in a particular region pursue low-skill production strategies and become inter-locked with a low-skilled

workforce. For example, employers pursuing price-based competition strategies based on low-quality and standardized production require only a limited range of low-level skill from the bulk of the workforce (Lloyd & Payne 2006; Finegold & Soskice 1988). Even if such strategies leave the local workforce vulnerable to displacement because of innovation and competition on global markets, workers have low incentives to remain in education because local employers are neither seeking high levels of skills, nor are they willing to reward high levels of skills. Employers have little incentive to upgrade production processes or workers' skills since this can undermine their price-based competition strategy. Even if employers eventually did want to upgrade their strategy or innovate, managers may be hindered to do so because the local skill base would remain inadequate due to low investment by both individuals and employers³. Research has clearly linked product-market strategies to skill supply and skill demand (Mason 2011; Buchanan et al. 2010; Evesson et al. 2009) suggesting that policy makers need to be mindful of taking a balanced approach to improving both the supply of, and demand for, skills in local markets (Froy, Giguère & Hofer 2009). Examples of governments seeking to help local economies move production up the value-added chain and enhance economic performance exist (see OECD 2010a; Scottish Government 2007). This is particularly attractive in stagnating regions or sectors which are characterized by a low-skill equilibrium because these can generate unfavourable local economic conditions. The ongoing processes of globalisation and opening up of economies as a result of liberalisation policies are likely to have a serious impact on developing countries. Krishna (2005) argues that the advantage of cheap labour, and local resources for small production units, which sustains a significant proportion of the informal sector, will not last. The extent of new technologies, particularly in ICTs, biotechnologies and micro-electronics, relevant to workers and units in the informal sector will depend on the level of skill adoption in the sector. In the same vein, Panth (2013) suggests that South Asian countries must use their emerging priority investments in energy, transport, municipal services and green technologies, as one of the key drivers for funding skill programmes that meet quality assurance requirements. This, he argues, will require ensuring synergy between higher education, secondary education and adult education to ensure a balanced development at all levels.

³ Workers in low-skill match situations are the least likely to invest in themselves and also the least likely to receive employer support for developing or sustaining their skills (see Desjardins, 2014).

Recognition and status of adult education

Expected rewards to adult education are important because they affect motivations and aspirations of individuals. This follows from the expectancy-valence theory mentioned earlier (Rubenson 1977). But this presumes some kind of recognition for having undertaken adult education. OECD (2010b) noted that the recognition and validation of adult education is thought to be crucial for motivating individuals to invest in adult education and take on associated risks.

The relationship between specific adult education initiatives and national qualifications frameworks as well as the existence of the Recognition of Prior Learning (RPL) mechanisms can thus be an important factor moderating the observed impact of adult education on labour market outcomes. If prior adult education and other learning are not recognized they are less likely to lead to observable outcomes such as higher earnings, even if there may be genuine productivity effects within firms or at the aggregate level. Thus the extent to which adult education provision seamlessly contributes to recognized qualifications on labour markets is an important means by which adult education can be identified to have value or impact on the labour market, albeit in limited ways, but also in terms of individual motivation (OECD 2010b).

Among high income countries, those that show evidence of strengthening their adult skill profiles and enhancing the value of adult education in relation to labour market outcomes are continually developing their adult education provision structures precisely in terms of seamlessly connecting non-formal types of adult education to formal qualifications (e.g. Finland and the Netherlands) (Desjardins, 2017).

Namely, continuous effort is made to build linkages between diverse sets of provision for labour market reasons back to the regular system of education and hence to formally recognized education and learning of all kinds. In developing countries too, such as Ghana, Mauritius, China and India, adult education is being linked to formal qualifications. In Ghana, since non-formal education is unconnected to re-entry into the formal education system, the new national qualifications system will be responsible for the recognition and assessment of non-formal education linked to skilled trades (Baffour-Awuah 2013). A marker of success in fostering the development of skills for the labour market is a highly diversified and flexible set of provisions, one

that recognizes the multi-dimensional nature of adult education provisions via non-formal education opportunities and connects them to qualifications that parallel or are equal to those that can be attained within the regular education system. By extension, the level of institutionalization with respect to policies, national qualifications frameworks and existence of RPL mechanisms, which give structure and quality-assurance to the chaos of programmes across the vocational-general and the formal-non-formal and informal learning divide/continuum, is a crucial contextual factor.

By implication the 'status' of qualifications associated with adult education related qualifications matter. For example, qualifications linked to parallel non-formal systems or lower tier tracks as ends in themselves can also have positive impacts, but such qualifications can adversely affect individual motivation and also individual benefits. From a system level perspective, these can be crucial for meeting the needs of industry and the labour market, but these can lead to disincentives by both individuals and employers because they carry lower status and stigma. For example, formal adult education, i.e. the acquisition of formal qualifications beyond the normative age, has been found to have no measurable impact on individuals' wages in the UK context (Jenkins, Vignoles, Wolf & Galindo-Rueda 2003) since this type of adult education may be deemed a signal of lower ability by employers and reflect adults that may be less motivated or less able (Feinstein, Galindo-Rueda & Vignoles 2004).

Conclusions

At least five conclusions can be drawn from the discussion and analysis presented.

Firstly, there is a need to foster a balanced evidence base to inform policy. Increasingly, in many policy and research circles micro-level statistical research and experimental methods are seen as synonymous with 'evidence', and as the gold standard for informing policy making so as to achieve the ideal of evidence based policy making. While results generated from these types of studies can be helpful for informing the debate, they often produce a fragmented and incomplete picture; circumstances that are not helpful for making informed decisions. Given the difficulty in measuring or quantifying many of the relevant factors needed to get a good overview of the labour market

benefits of adult education, other analytical methods are necessary. Moreover, interpretation of results from such studies need to be carefully contextualized and often depend on good qualitative accounts as well as logical and structural forms of comparisons. Notwithstanding this, there is a lack of quality administrative and survey data regarding spending on adult education by government, individuals and organizations including employers and NGOs. It is thus important to build up data on relevant aspects of the labour market outcomes of adult education but also systematized accounts of the relevant relationships which draw on a wide base of methods.

Secondly, it is important to insitutionalize flexible and diversified adult education provision structures that recognize and value all kinds of adult education and learning. High quality adult education systems go hand in hand with well-functioning labour markets. Features of advanced adult education systems include flexible and diversified provision (Desjardins, 2017). These can be important in extending opportunities to workers in precarious situations such as in temporary or other forms of flexible employment, and thus who cannot rely on their employers to invest in their development of their skills to secure employment. It is also key for extending opportunities to otherwise disadvantaged adults who tend to face obstacles to learning and education much more intensely than more advantaged adults. Curriculum and exams that are adapted in ways that seek to incorporate the interests of adults and recognize their prior experiences they bring to the table can be crucial for motivating individuals and stimulating demand to invest in adult education for labour market reasons. Strong emphasis on vocational training and labour market needs, without recognition of learning and experiences undertaken for personal and social reasons can act as a barrier, particularly for disadvantaged adults. Moreover, it is important to create learner pathways for adults with low literacy skills which connect skills upgrading with employment and further education and training. Equally important is the need for well developed guidance and advisory services that are necessary for fostering the take up of opportunities according to needs.

Thirdly, coordination among stakeholders in developing skills for the workforce is key. Partnerships are one of the most important success factors of a nation's workforce development system. They are particularly helpful for helping stakeholders to work together to identify, assess and prioritize

skill and knowledge needs. As an example, unions can play an important role as co-designers of work-based adult education.

Fourthly, it is necessary to develop needs based and customized opportunities for low skilled adults. Targeting and outreach, especially to adults with little or no qualifications, has to be flexible by encouraging any kind of learning and development, focusing on relevance, needs, recognition of prior individual experiences, and other individual or organizational aspirations.

Lastly, it is crucial to mitigate the negative economic and social effects of low-skilled labour. Wider institutional and policy frameworks can play an important role in mitigating the negative economic and social effects of low-skilled labour by fostering the development of advanced adult education systems which support value-added and quality production. This is crucial for helping low-skill workers overcome the challenges of securing career progression, especially in contexts where low-skill equilibria can take hold. Efforts must include the development of the low-skilled workforce to foster good labour market functioning and promote development and well-being.

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