

As a policy advocate on behalf of low income people, I fully agree with Dr. Pena that skills aren't the only determinant of economic inequality, and that education policy by itself can't solve our inequality problems. CLASP works on multiple fronts. Yet, skills development does help individuals and families climb out of poverty and education is one of the few policy areas on which there seems to be at least some level of social and political consensus.

At some level the relationship between knowledge, skills and abilities (KSAs), credentials and earnings is simple. On average, those with more education and higher levels of KSAs and credentials do better on all economic and social indicators than those who don't. Americans' overall low levels of proficiency and the gap between what people bring to the workplace and what employers want is distressing for economic and social reasons. We must do better.

Let me start with a few comments about the connection between skills (those covered by PIACC and others) and credentials. Reassuringly, Holzer and Lerman find that there is a correlation between proficiency in numeracy, literacy and problem solving and the level of education a person has attained although there is considerable variation in proficiency within levels.

Employers use educational attainment as represented by a credential as a proxy for skills in their hiring decisions. A recent Burning Glass report on the increasing educational requirements in the US labor market noted that employers are using the BA as proxy for KSAs they want new hires to have not because they really know what a bachelor's degree represents, but because they aren't happy with the skills job applicants bring to the workplace and they don't have adequate (and I would add, legal) ways of identifying the KSAs people have and matching them to their skill requirements. Once someone is employed individual proficiency is easier to identify and reward.

The variation in proficiency within education levels that Lerman and Holzer found is consistent with what CLASP and the Corporation for a Skilled Workforce found in the process of developing a competency-based credentialing framework for the US. The draft credentials framework has 8 levels of knowledge, cognitive and

technical skills, and personal and social abilities. We broke out personal and social abilities because of the importance employers place on problem-solving, communication and other employability skills.

Although the credentials framework resembles other countries qualifications frameworks, it is not designed to level credentials like the UNESCO classification scheme for professional education and training. Rather, it is designed to help people understand and compare the KSAs inherent in the many different credentials that are flooding the US credentials marketplace. As part of the initial validation of this framework, we asked providers of various credentials: community colleges awarding a wide variety of certificates and applied and transfer associate degrees and professional certification bodies in health care, IT and other fields to map the knowledge, skills, personal and social abilities represented by the credentials they award against our 8-level framework. The validation is on-going, but the preliminary mapping showed that:

- There is considerable variation in the level of KSAs implicit within levels or categories of credentials (bachelors, associate, certificates; lots of variation in certifications)
- There are different profiles or patterns of KSA requirements among certificates and certifications for different occupations (in other words, they are not consistently at the same level within a given level of credential.)

No wonder employers and students are confused about what credentials represent. One clear implication for policy and practice that goes beyond the immediate issue of concern here is that we need to move from participation or time-based credentials to a more transparent and flexible competency-based learning and credentialing system.

Holzer and Lerman discuss different returns to literacy and numeracy independent of educational attainment within broad occupational groupings and by gender, age and foreign born status. Although race is not addressed in these papers, we know that the rate of low literacy among black adults is twice as high

as among all adults (35%:18%) contributing to and a consequence of the vicious circle of intergenerational poverty and inequality.

In part the differences in ROI reflect different KSA requirements of jobs, but as Dr. Pena points out, other things such as the regulatory environment, differences in supply and demand, and density of unionization also affect wages in these occupational areas and therefore the ROI calculation. These factors also affect the differences in ROI among credentials in different fields of study about which Tony Carnevale has written extensively.

Lindemann makes the case that these differences also reflect the age and gender segregation of jobs. For example:

The Holzer and Lerman analysis shows that returns for higher literacy are greater for 25-34 year olds than those 35 and older, while returns from numeracy gains are greater for those 35 or older. They suggest that cognitive skills may be especially important for younger workers since they are likely hired for increasingly technically demanding jobs and they are less able to benefit from seniority and experience. This may be true, but as Lindemann shows, the high numeracy use jobs in which young people work are in low-paid service sector jobs

Lerman and Holzer provide data that earnings gains from increased numeracy proficiency are generally higher than for literacy; and that men benefit more from increased numeracy proficiency and women, from increased literacy. Lindemann explains some of these differences by pointing out that top high numeracy jobs include engineering and software development are dominated by men and even though there is a high level of numeracy content in some female dominated occupations such as nursing and early childhood development, these occupations historically have been low paid.

Holzer and Lerman find a U-shaped effect with the greatest impact of increased proficiency among the highest and lowest earners. They find that workers with some college see no significant earnings increase with higher levels of cognitive skills. My guess is that there is so much noise within this bucket, not the least of

which is the wide variation in ROI to sub-associate level credentials; but this may be an area for further research.

One clear implication for policy and practice from these confusing relationships between cognitive skills and earnings is the need to help low-skilled workers/learners understand the unique skill requirements associated with different career paths from entry level employment on up, the earnings associated with these jobs, and what it will take in terms of learning to get from where they are to where they want to be. Career pathway strategies can create on-ramps to further education and training for low-skilled people and manageable steps along the pathway to help them access good jobs. Career pathway maps such as those posted by all community colleges in Oregon are useful tools for career and academic guidance.

Other implications which are intended to stimulate a rich conversation and hopefully some useful next steps:

As widespread as the numeracy/literacy and problem-solving problems are, we need to pursue more integrated approaches to workforce development. The *OECD Skills beyond school* recommends just that, highlighting the need for more effective assessment.

The recently enacted Workforce Investment and Innovation Act (WIOA) requires unified planning between workforce development, adult education and vocational rehabilitation programs and provides an extraordinary opportunity for unified planning with TANF and SNAP to focus more effectively on achieving self-sufficiency for these largely low-skill populations. WIOA also promotes some level of shared accountability for educational and labor market outcomes to encourage implementation of more integrated approaches. These approaches include contextualized learning approaches such as I-BEST that integrate basic skills/ELL and vocational instruction and career pathways approaches that incorporate such instructional models and provide on-ramps for low-skill individuals to further training and employment. Note: the reinstatement of Ability-to-benefit for career pathway participants in the omnibus appropriations bill.

In addition, WIOA encourages work-based learning, which has the potential for incorporating the best of workplace literacy approaches.

These integrated approaches are ones that hopefully will be built into a new focus on workforce development and employment in the SNAP program. The SNAP E&T experiments provide an opportunity for further research on effective practices in serving those with very low skills.

WIOA expands eligibility for adult education from those lacking a high school diploma to a broader group of people who are “unable to compute or solve problems or read, write or speak English at a level necessary to function on the job, in the individual’s family or in society.” It also requires that under Title I workforce programs, priority for accessing training and high-intensity career services be given to individuals who are basic skills deficient or have other barriers to employment. It requires that at least 75% of youth funds be spent on services to out-of-school youth, who consistently exhibit very low proficiency levels.

Even prior to WIOA, a growing number of states have moved the administration of their adult education program into their workforce agency.

The greater integration of workforce and adult education is definitely a good thing, but there is a danger that because of great need and very limited resources (despite encouragement from Congress to serve those with the lowest skills, a minimal funding increase in the Omnibus and potentially some resources from partnerships with SNAP), the adult education system may end up serving even fewer people with the lowest level cognitive skills. There also may be pressure to serve more people with lighter-touch interventions such as online and self-directed learning that are not effective with this population. There may be new opportunities for linkages with vocational rehabilitation to better serve very low skill people with learning disabilities.

The President’s executive order providing work authorization and social security numbers for some 5 million currently undocumented immigrants provides both

an opportunity and a challenge. Title I/II collaboration to serve this population has been a problem in the past because of documentation requirements in Title I. We have service delivery models that work, but both systems lack the resources to vastly expand services to this population.

The current adult education and workforce development systems serve only a fraction of eligible youth and adults who need education and training to gain a foothold and advance in the labor market. I have no expectation that the funding situation at the federal level will get better anytime soon. Hopefully, states will step up to the plate as their coffers are replenished as a result of the improving economy.

Finally, although beyond the scope of this panel, the findings also suggest a desperate need for continued reform in k-12 education and developmental education reform in higher education. In some community colleges, 70% of students must take remedial courses. However, it will be important to avoid unintended consequences. For example, in some states developmental education reforms are resulting in a significant influx of people into the already overwhelmed adult education system because colleges can no longer serve them.