



Pakistan's Demographic Transition: Young Adults, Human Capital and Jobs

*Dr. Ali Cheema
November, 2014*

Disclaimer

This paper has been developed by the external Contributing Author, Dr. Ali Cheema. The opinions, statements and advice contained within this paper do not necessarily represent those of the UN, UNDP nor NHDR.

Introduction

Pakistan is undergoing a rapid demographic transition and the resulting youth bulge is leading to the entry of young adults into the labor market at an extremely fast rate. This transition provides an opportunity for Pakistan to benefit from a ‘demographic dividend,’ as the rising share of working-age adults in the population offers the potential to catalyze growth and living standards. However, the ‘demographic dividend’ could equally turn into a liability if the growing pool of young adults entering the labor market are unable to get jobs that offer them better earnings and labor market opportunities.

At the most fundamental level the challenge associated with the demographic transition is the need to increase the rate of job creation. Evidence shows that around 1.5 million new jobs will need to be created every year to keep unemployment at its current level (World Bank 2012). This evidence also shows that at the current rate of GDP growth, all else equal, unemployment could be as high as 20 percent by the year 2020. This is of great concern as recent studies provide robust evidence on the correlation between unemployment, crime and insecurity in the Pakistani context (Cheema, Hameed and Khan 2014 and Aman-Rana 2013).

However, this challenge is not only about the quantity of jobs created but also about their quality. While the Pakistani economy has, historically, done really well in terms of the rate of job creation; it has at the same time created jobs that have produced disappointing labor market outcomes for adults actively engaged in the labor market. A majority of jobs that have been created are low quality and concentrated in low productivity agriculture, unskilled daily labor and low productivity household enterprises (World Bank 2012). The poor quality of job creation is associated with slow structural transformation and one of the lowest levels of labor productivity in the developing world (World Bank 2012). This low-quality job trap is creating an “aspirations crisis” in the young adult population that is likely to lead to disengagement with society and the state¹.

An important factor constraining better labor market outcomes is the low level of human capital accumulation in the working-age population and the young adults (15-29 years). Two-fifths of the working-age population has no education. The average educational attainment is very low and there are large gaps between gender, income groups, provinces and rural and urban areas. While education attainment among young adults is higher, still almost a third of this pool lacks any education. The average young male has not completed middle school and the average young female has not completed primary school. Education deficits and gaps between gender and income groups are much higher in Pakistan’s high poverty districts. Low levels of human capital accumulation also persist because educational deficits are not being offset by skills acquisition outside the school system; again the shortfall in skills acquisition is more acute in the high poverty districts.

In this context, skills and vocational training have emerged as preferred programs of governments and international donors to build human capital among the large population of young adults with low educational attainment. The emphasis on skills programs is stemming from the recognition that a very

¹ Despondence and disengagement were characteristics observed among low skilled worker participants of focus group discussions conducted by the National Human Development Report (NHDR) 2015 team in Sheikhpura and Faisalabad in November 2014.

large proportion of young adults with low educational attainment is beyond the school going age. Therefore, schooling is not a pathway that is available to this population. The expectation is that skills programs will positively impact earnings by improving labor market opportunities and employment transitions and this, in turn, will have non-economic spillover benefits by strengthening citizen-trust in the state, reducing crime and improving citizen security. The underlying assumption is that equipping young adults with better skills by deepening the skills and vocational training market will improve labor productivity and this will increase the demand for skilled labor and earnings in the labor market. The other important assumption is that the private market is unlikely to generate an optimal trajectory of skills acquisition in the absence of public investment on account of failures in the markets for skills and labor.

However, the international literature suggests that skills and vocational training programs are no silver bullet as they do not promise unambiguous returns in terms of earnings, employability and labor market opportunities across contexts (Bandera et. al. 2012, Attanasio et. al. 2011, Card et. al. 2011, Chum et. al. 2012, Hicks et. al. 2011). The success of the programs is contingent on the prevalent economic environment and on the features of program design even when there is an adequate supply of quality training and the demand for training exists among young adults with low educational attainment. In particular, program success requires low-cost access to training for young adults with low educational attainment. It also requires improved access to jobs, labor market opportunities and markets post-training. It also requires demand for skilled labor among employers and the existence of positive returns to skills.

This background paper shows that education and skills deficits among young adults present an important challenge in Pakistan, which is an acute problem in high poverty districts. It highlights that low educational attainment is not being offset by skills acquisition in this context, and the result is a large young adult population with low human capital. Evidence shows that low skills acquisition is not a result of low demand for skills training among households nor is it a consequence of low employer demand and returns to skills. In fact, we show that the demand for skills training exists and it has a very marginal gender-bias. The paper argues that the binding constraints for skills acquisition are the lack of availability of quality supply, the high cost of access to training for young adults with low educational attainment and women and the high cost of accessing jobs and market opportunities post-training. These constraints are a consequence of social constraints that are resulting in:

- (a) Highly exclusive, narrow and personalized job matching networks that dilute the link between skills acquisition and access to jobs.
- (b) Low social mobility among women which dilutes the link between skills acquisition, market access and earnings. This constraint becomes extremely binding because of the lack of availability of skilled jobs for women at the community level.

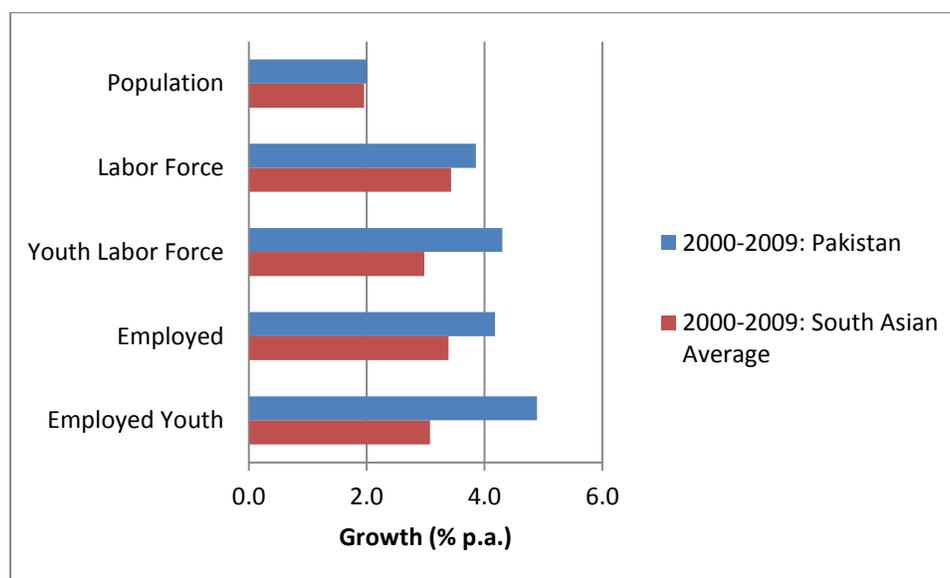
The evidence suggests that program success will require moving away from the current program design which is exclusively focused on the supply of courses and measures success by counting the number of program graduates. We argue that skills and vocational training programs need to be designed to address the identified constraints without which it will be difficult to achieve the desired impact of human capital accumulation on earnings, labor market opportunities, poverty reduction and growth. This will require designing skills and vocational training programs to explicitly incorporate market linkage and job placement as integral components. It will also require pedagogical innovations and interventions that reduce the cost of access to training. It will also require tying skills programs to complementary asset

transfer, micro-entrepreneurship and active labor market programs. Creating a post-training earnings impact for women will require active labor market policies that can create quality jobs at the village and neighborhood levels.

1. The Demographic Transition and the Job Challenge

Pakistan is undergoing a rapid demographic transition that is creating a significant youth bulge with the number of working-age adults increasing at a faster rate than total population. Over the past decade Pakistan’s labor force, especially the young labor force, has increased at a faster rate than the regional average (Figure 1). The population of young adults today is almost one-third of the working-age population and this share is going to expand significantly during the coming decade. At current rates of labor force participation 1.7 million new young workers will be entering the labor market every year (World Bank 2012). This number is likely to go up significantly if Pakistan is able to increase its female labor force participation rate, which is the lowest in the region². **Pakistan will need to increase its rate of job creation, which has declined since the 2009 downturn, if it is to create sufficient employment to absorb the large population of young adults entering the labor market as a result of the demographic transition.**

Figure 1: Labor Market Indicators in South Asia



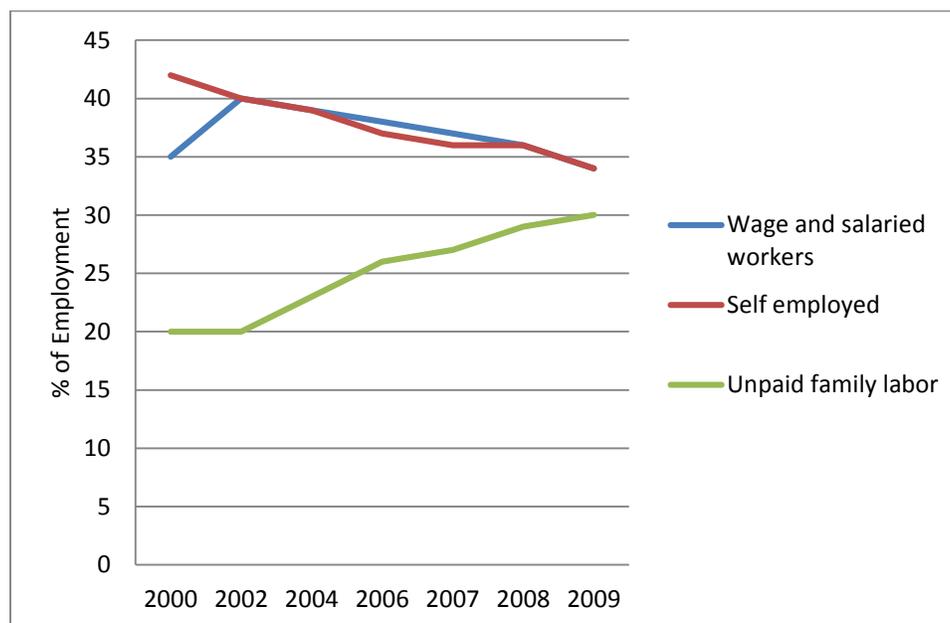
Source: World Bank (2012)

Historically the rate of growth of employment in Pakistan has been growing as fast as the labor force, even in the case of young adults (Figure 1). The parity between the rates of growth of the labor force and employment has enabled the country to maintain a low rate of unemployment. Low unemployment is also

² The South Asian regions female labor force participation rate during 2005-08 was 46.3%, which was more than twice Pakistan’s rate of 20.7% (World Bank 2012)

a consequence of low rates of female labor force participation. The big failure of growth in Pakistan has been its inability to create quality jobs. During 2000-09 more than one-third of the jobs were created in the agricultural sector, which is the sector with the lowest level of labor productivity (World Bank 2012). Pakistan’s fast rate of job creation has not been matched by a rapid structural transformation with a shift in employment away from agriculture and towards the higher productivity industrial and service sector employment. The structural transformation remains slow with the agricultural sector continuing to employ 45 percent of the labor force even though its share in GDP has declined. Nearly two-thirds of jobs, between 2000 and 2009, were created in low productivity household enterprises and self employment. The share of wage and salaried employment, which offers high and relatively secure earnings, has steadily declined during the last decade, and instead there has been a steady increase in the share of unpaid family labor (Figure 2). Given this labor market structure it is unsurprising that Pakistan has one of the lowest levels of labor productivity in the developing world (World Bank 2012). **The challenge for Pakistan is to not only create more jobs but better quality employment that allows better and more secure earnings trajectories for the young. The inability to create quality jobs is likely to create an aspirations crisis for the young that can lead to significant disengagement with society and the state.** Evidence shows that there is a robust positive correlation between crime and violence and unemployment³ and a negative correlation between crime and labor force participation (Cheema, Hameed and Khan 2014, Aman Rana 2013).

Figure 2: Employment Share by Status



Source: World Bank (2012)

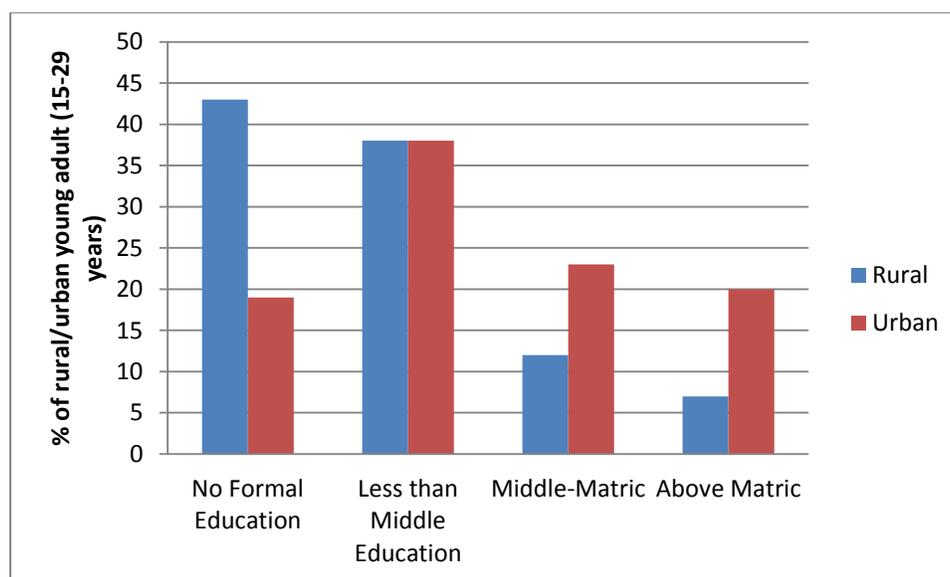
2. Education and Skills Deficits in High Poverty Districts

³ Cheema, Hameed and Khan (2014) find that a 1 percentage point drop in the unemployment rate causes a decline in property crime rate of 1.3 percent.

An important factor constraining better labor market outcomes is the low-level of human capital accumulation among the working-age population, including young adults. As of 2009, two-fifths of the working-age population and one-third of the young adult population lacked any education. The average years of schooling for men was 6.5 years and for women it was 3.5 years. Young adults did not fare much better, in spite of a major expansion in access to schooling, with young men attaining 7 years of schooling and young women 5.3 years. The proportion of young adults without any education, which is 20% for men and 41% for women, is the lowest in the South Asian region (World Bank 2012).

Education deficits among young adults (15-29 years) are more acute in Pakistan’s high poverty districts⁴. Figure 3 shows that there is a high educational deficit among young adults in the high poverty districts. Over 40% of young adults in rural areas and approximately 20% in urban areas have no education. Another one-third in rural and urban areas have not completed middle school. The young adult (15-29 years) population accounts for approximately one-third of the total population in high poverty districts, which constitutes a large population with low educational attainment that is beyond school going age.

Figure 3: Educational Deficit in Young Adults



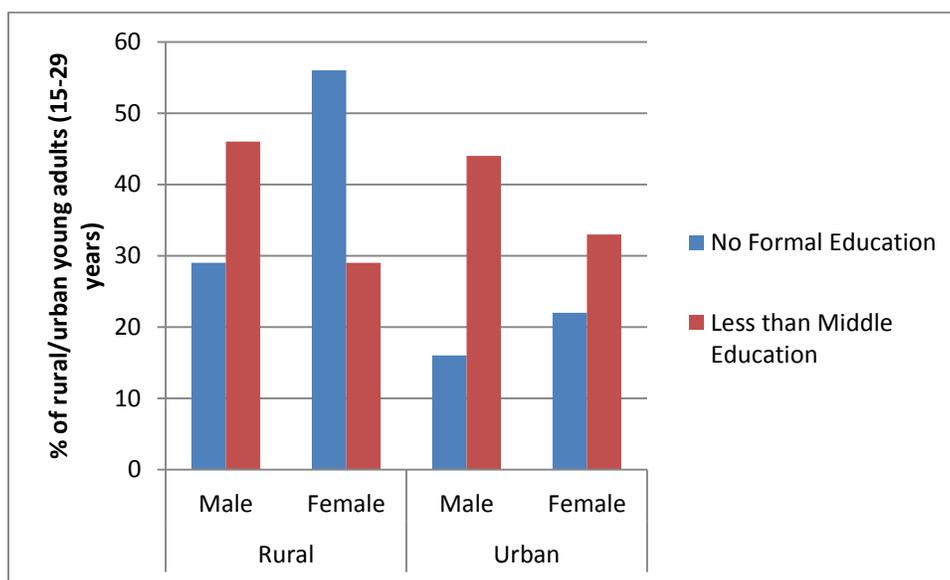
Source: CERP-PEOP Baseline Household Survey

Figure 4 shows that education deficits are particularly high among rural women with over fifty percent having no formal education and another thirty percent failing to complete middle school. Almost three-fourths of the young adult rural males have failed to successfully complete middle school and

⁴ This background paper uses primary evidence for high poverty districts from a tehsil-representative baseline survey of approximately 31,500 households in 860 communities and a district-representative baseline of 6,200 employers. This data has been gathered at the Centre of Economic Research in Pakistan (CERP) as part of the impact evaluation of the Skills and Vocational Training component of the Punjab Economic Opportunities Program (PEOP), which is a flagship skills program funded by the Government of Punjab and DfID. The surveys were conducted in Punjab’s four high poverty districts of Bahawalpur, Bahawalnagar, Lodhran and Muzzaffargarh. The research was funded by DfID. The evaluation at CERP is being conducted by a team of researchers that, along with the author, includes Professors Asim Khwaja (Harvard Kennedy School and CERP), Farooq Naseer (Lahore University of Management Sciences, CERP and IDEAS) and Jacob Shapiro (Princeton Woodrow Wilson School and CERP).

approximately sixty percent of urban males and females have also failed to meet this standard. **Education as a pathway for acquiring human capital has not delivered for a large population of young adults, the problem is much more acute in the high poverty districts.**

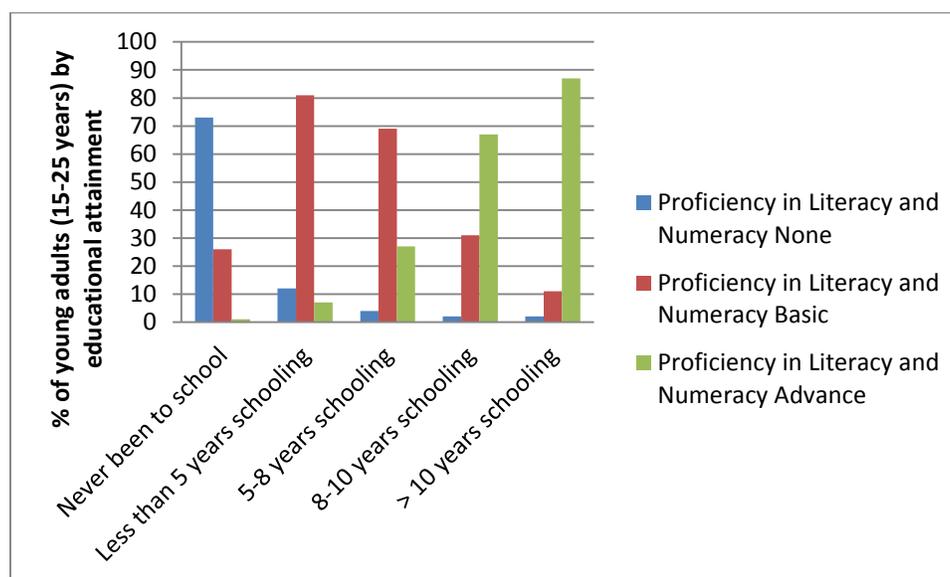
Figure 4: Educational Deficit in Young Adults by Gender



Source: CERP-PEOP Baseline Household Survey

An important question is whether the shortfall in educational attainment is being offset by skills acquisition outside the schooling system? Evidence shows that employers in high poverty districts consider functional literacy and numeracy skills to be an important pre-requisite for entry to medium and high-skilled jobs (Cheema et. al. b 2012). One way to address this question is to analyze the relationship between educational attainment and proficiency in numeracy and literacy skills. Figure 5 shows the strong correlation between educational attainment and proficiency in numeracy and literacy skills a core requirement for entry into medium and high skilled jobs.

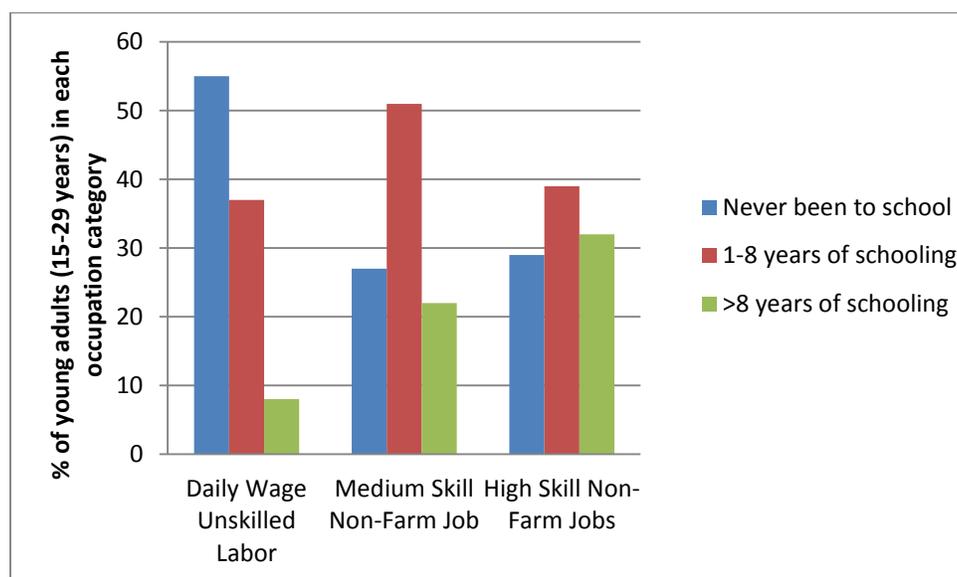
Figure 5: Educational and Skills Deficits in Young Adults



Source: CERP-PEOP Baseline Household Survey

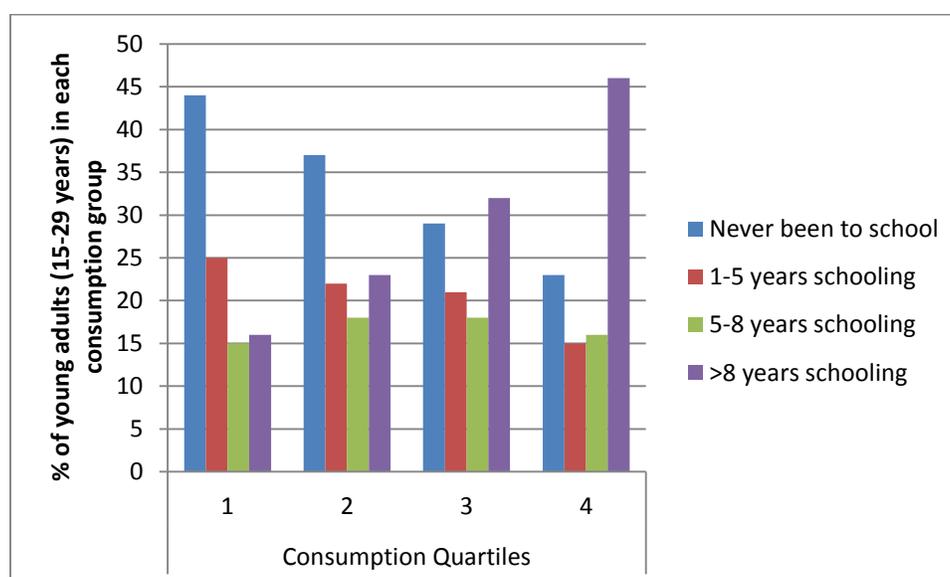
This would suggest a strong relationship between educational attainment and the transition to skilled employment. Figure 6 shows that the transition to skilled non-farm employment is strongly related to educational attainment. **This suggests that the failure of young adults to enter school or complete middle school or higher levels is not being offset by the acquisition of skills outside the school system. As a result, this large population which is beyond school going age is facing serious human capital shortfalls, which cannot be addressed through investments in schooling. Augmenting human capital among this population will require exploiting other pathways such as skills training. To address the demographic challenge skills training has to pay particular attention to young adults of both genders who are already in the labor force and are either working in low productivity employment or are looking for jobs.**

Figure 6: Educational Attainment and Skills Level of Occupation in Young Adults



Source: CERP-PEOP Baseline Household Survey

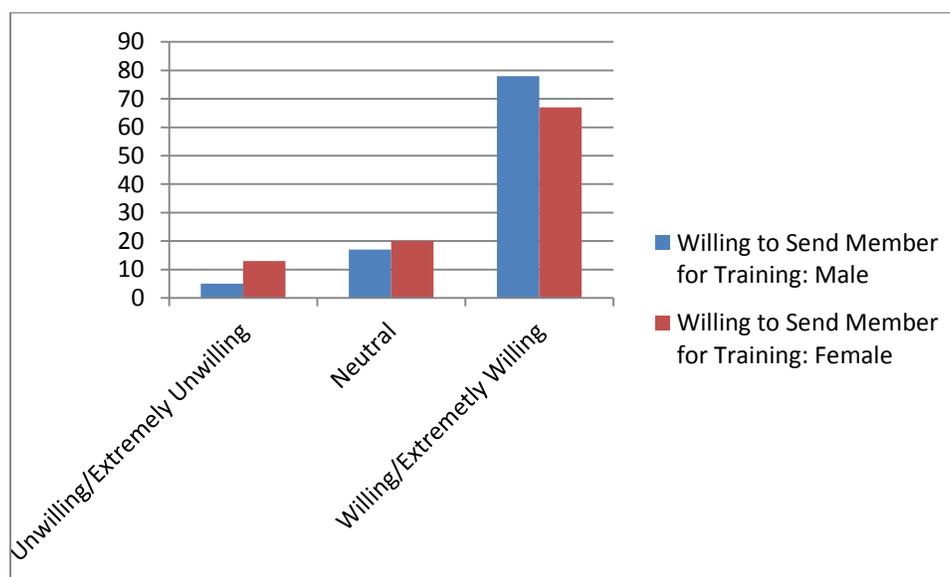
Figure 7 shows that educational attainment in young adults is strongly related to the economic well-being of households. Consistent with the literature for developing countries, we use a consumption based measure of household welfare rather than an income based indicator. We present results on economic well-being by dividing households into four consumption brackets or quartiles based on the above measure. The first quartile includes the bottom 25% of the households and the fourth quartile include households belonging to the top 25% of consumption per capita. **Although we cannot infer causality from this evidence it does suggest that young adults belonging to poor and vulnerable households are bearing the brunt of educational and skills deficits. This finding strengthens the need to assess the potential of skills training as an effective pathway for human capital accumulation among young adults with low educational attainment.**

Figure 7: Educational Attainment and Economic Well-Being in Young Adults

Source: CERP-PEOP Baseline Household Survey

3. Is there Demand for Skills Training?

However, is there a demand for skills training among households and employers? **Evidence reveals a high demand for vocational skills training among households in the high poverty districts** (Cheema et. al. 2012 a). In the baseline survey we enumerated the willingness of household to enroll at least one male and/or female member into vocational training programs. Figure 8 shows that a high demand for skills training exists among households in the high poverty districts. Interestingly there is a very marginal gender gap in the expressed demand for training. Furthermore, over two-thirds of households who did not express unwillingness to enroll a member had a preference to enroll a young adult in the training program. Interestingly, over three-fourths of households gave income earning potential or ability as the reason for selection in the case of males and this percentage dropped to two-thirds in the case of women, where being needy also emerges as an important consideration. This suggests that there are sensible economic reasons underlying the demand for training among households.

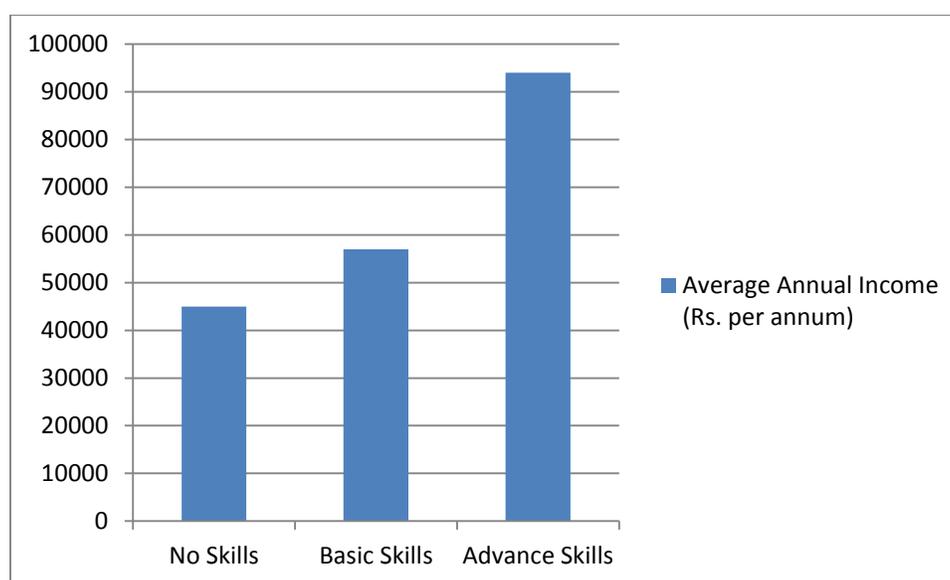
Figure 8: Household Demand for Vocational Skills Training

Source: CERP-PEOP Baseline Household Survey

The employers’ survey also shows that latent demand for skilled labor exists among employers in the high poverty districts (Cheema et. al. 2012 b). The survey shows that almost two-fifths of multi-worker firms say that hard to find job-related skills are causing problems to their business. To recruit individuals possessing hard to find skills, 22% of the multiple-worker firms have been increasing wages and training and 13% have been increasing advertisement and recruitment spending and investing in new recruitment methods. This suggests a willingness to pay for skilled labor. In addition, one-third of multi-worker firms expressed a need for workers with functional numeracy and literacy skills. Among single worker firms one-fourth of the owners want to attend training and 11% of these firms expressed a desire to hire additional skilled workers. Two-fifths of the employers who report need for skills also report that their employees are less than proficient. The main reasons cited for lack of proficiency are lack of experience, lack of literacy and numeracy skills and lack of motivation. It is unsurprising that there are high rates of turnover in the labor market with 85% of multiple worker firms reporting rehiring workers against 2-3 established positions in a year.

The surveys also reveal a strong positive correlation between proficiency in literacy and numeracy skills (which we have argued is an important pre-requisite for skilled jobs) and average annual income among the pool of young adults working in occupations other than unskilled daily labor (Figure 9, Cheema et. al. 2012 a). World Bank (2012) also finds that internal rates of return are higher for primary education (relative to no education) but fall as individuals move from some education to the completion of primary education. Interestingly our respondents perceptions about the returns associated with these skills matches reality extremely well. Young adults appear to have a good understanding of the earnings increases associated with different steps of the skills ladder. This suggests that the demand for skills is driven by sensible economic considerations.

Figure 9: Average Annual Income by Skills (Excluding Day Labor)



Source: CERP-PEOP Baseline Household Survey

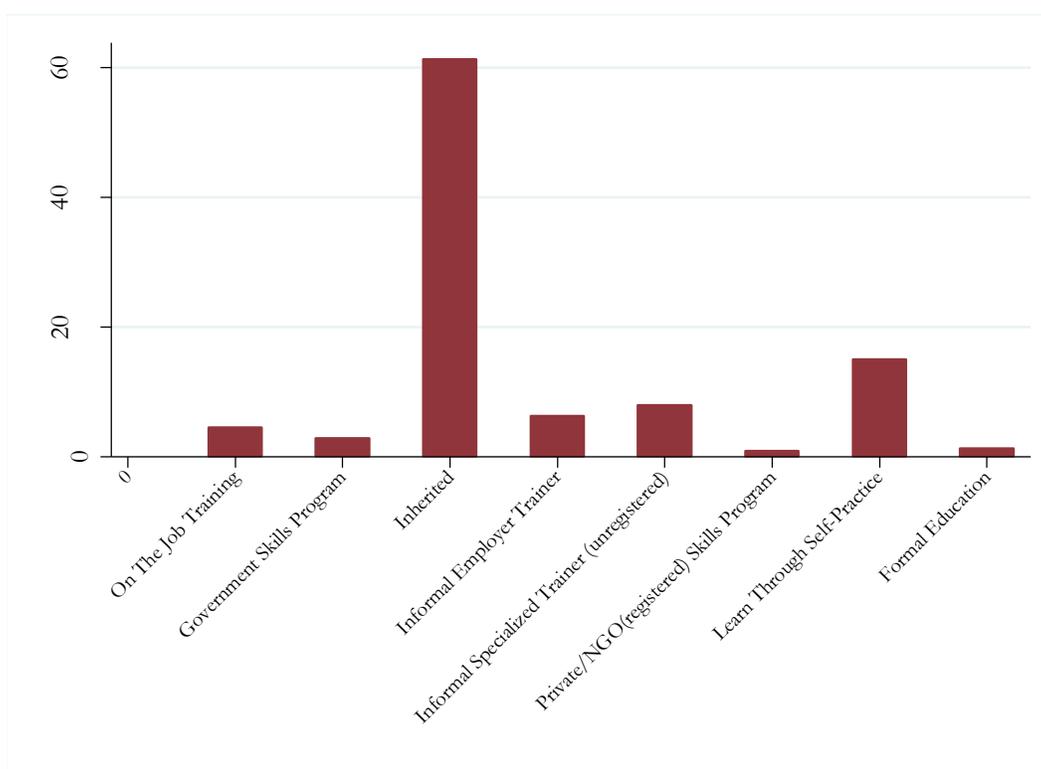
4. Constraints to Skills Acquisition

The intriguing question is why is skills training not working as an effective mechanism for human capital accumulation given that the demand for training exists among young adults and there is a healthy demand for skilled workers among employers? Evidence shows that this pathway of human capital accumulation is not working effectively because of the paucity of quality supply and a set of access constraints that raise the costs of access to training and jobs for young adults. The high cost of accessing training results in lowering the effective demand for training among young adults with low educational attainment and especially women. The high cost of accessing jobs and market opportunities reduces the effective returns to training by lowering the expectation of getting jobs and access to better market opportunities post-training.

4.1. Paucity of Quality Supply

An important constraint to skills training emerging as an effective pathway for human capital acquisition is the paucity of quality skills supply. Figure 10 shows that the vast majority of young adults acquire skills through inheritance or self-learning. Very few acquire training through formal programs offered by the public, private and non-government sectors and through employer-based OJT. This is in spite of the fact that our respondents gave a much higher usefulness rating to formal programs and on-the-job training compared to the acquisition of skills through inheritance or self-learning (Cheema et. al. 2012 a). World Bank (2012) reports that, in 2007, less than 1% of young adults had ever received any vocational training with the total enrollment in the Technical and Vocational Education and Training (TVET) system equaling around 250,000. **This suggests that the base of skills provision is extremely narrow at present and there is a need to deepen the supply-side of the skills market.**

Figure 10: Who is providing Skills Training?



Source: CERP-PEOP Baseline Household Survey

The survey also provides evidence on how skills are acquired by young adults engaged in different occupations. We find that skills related to agriculture and veterinary sectors are almost entirely inherited. The household remains the most important provider of skills for individuals engaged in medium skilled blue-collar (which includes craft and related workers and plant and machinery operators), and elementary occupations. The dominant mode of skills acquisition for service and sales workers are inheritance and

self-learning. Therefore, these skilled labor categories, which constitute a large share of available jobs, are currently underserved by OJT and formal training providers in the high poverty districts. This reinforces the need to deepen the supply-side of the skills training market.

Currently Pakistan’s TVET system is characterized by a fragmented and supply-driven governance structure that has not been able to integrate OJT or achieve coordination with active labor market programs (ALMP) (Blom et. al. 2009). It has also not been able to institutionalize mechanisms that provide information on the training needs and investments among employers and households. Program impact tends to be measured on the number of graduates produced rather than in terms of earnings and employability. It is, therefore, unsurprising that recent studies have reported a number of problems in TVET programs, which include outdated or irrelevant courses, poor infrastructure and resources, little exposure to industry and a misalignment between demand and supply of skills (Blom et.al. 2009 and Janjua et. al. 2010). **The design of training programs has to avoid the two most important causes of failed supply-side programs, namely exclusive funding for public sector training providers and an exclusively supply-side determination of the portfolio of skills training (Blom et. al. 2009). Public funding for training has to be designed to catalyze and deepen the training market in skills that are under-provided by the private and non-government sectors. This can be done by establishing performance-based financing (e.g. Nepal’s employment fund and Punjab Skills Development Fund), which would make payments on the basis of services delivered and placement and earnings results, or training vouchers that are allocated directly to individuals who can then choose between diverse providers.**

In addition, program design must embed mechanisms which ensure that employer and household demand informs the composition of the skills training portfolio. The household and employers surveys reveal that the employers demand for hard-to-find job-specific skills matches the households demand for training in specific skills quite closely. It also shows that households are aware of the returns associated with training in basic numeracy and literacy, which are important skills demanded by employers. This suggests that both employers and potential trainees are reasonably well informed. Under these conditions demand-side determination of the skills training portfolio will ensure relevance, which is a necessary pre-condition for ensuring better labor market opportunities and increased earnings (World Bank 2012).

Finally, a central pillar of effective program design has to be the institutionalization of a results and evaluation framework that ensures the quality of training supplied as well as the market relevance of the adopted curriculum and pedagogy. Qualitative interviews with employers reveal concerns about the quality and relevance of the curriculum, pedagogy and skills training provided through formal training programs. It is, therefore, no surprise that employers have a strong preference for OJT to in-class training. This suggests that to impact earnings, employability and the credibility of training in the eyes of employers it is important to formally embed employer evaluation of the curriculum, pedagogy and skills provided by formal programs. This can be done by institutionalizing a rigorous evaluation mechanism as part of the program framework.

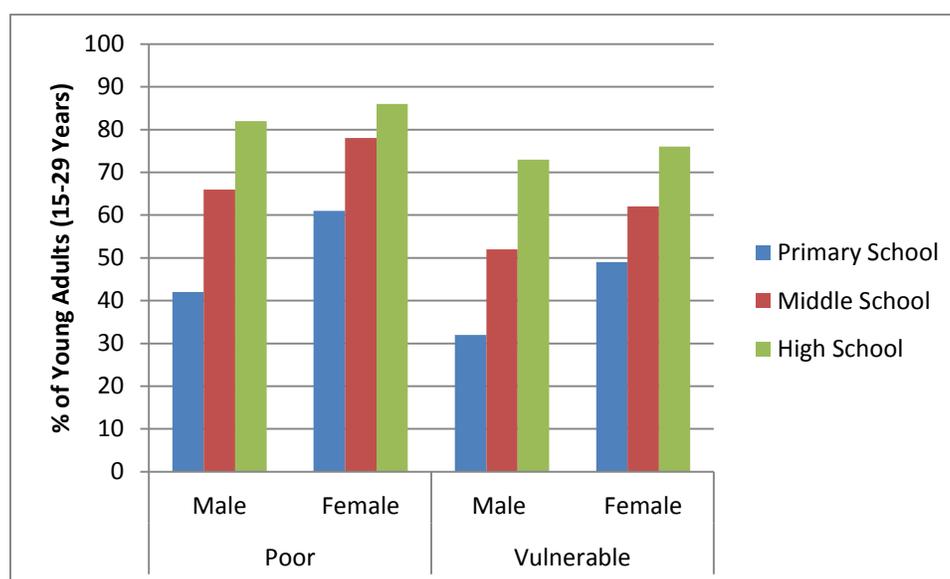
4.2. *Access to Training: The Constraints*

Skills training is also not fulfilling its potential as a pathway for human capital accumulation among young adults with low educational attainment because of constraints that increase the cost of access to training for the young adult population.

4.2.1. Education-related Barriers to Access

An important factor causing access constraints is the mismatch between the education requirements of formal training providers on the supply-side and the education profile of the population of young adults on the demand-side (Cheema et. al. 2012 a). Our engagement with the Punjab Skills Development Fund (PSDF) has revealed that typically providers require middle to high school education for entry into what they classify as quality courses. Figure 11 shows the consequences of this supply-demand mismatch for young adults in the poor and vulnerable populations. It provides evidence on the percentage of males and females who are likely to get excluded from training under different education thresholds (primary, middle, high schooling) for entry into courses.

Figure 11: Exclusion due to Minimum Educational Requirements for Training



Source: CERP-PEOP Baseline Household Survey

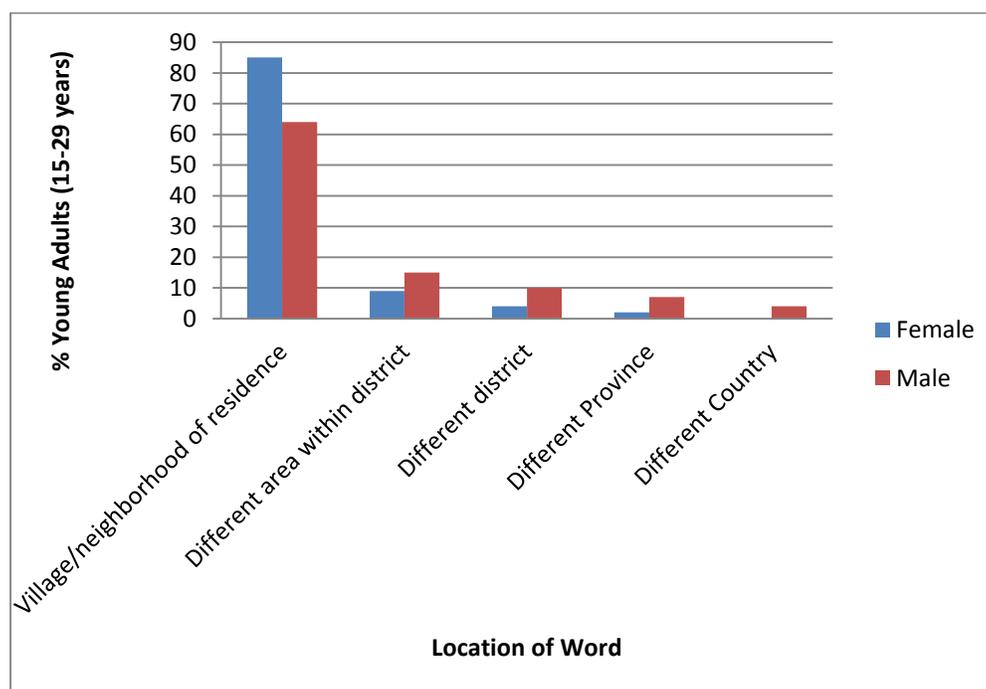
We find that a very large number of young adults get excluded from formal skills training programs under the current education requirements for enrollment. This is self-defeating as the rationale of these programs is to build human capital in young adults who are beyond schooling going age and lack educational attainment. **An important design challenge is to develop curricula and pedagogical methodologies that can provide young adults with low educational attainment entry into quality training programs.** Mitigating this constraint will require major curricular and pedagogical innovations on the supply-side. It will also require building functional numeracy and

literacy modules as part of these training programs. This is important as functional literacy and numeracy are not only a pre-requisite of gaining skilled employment it is also highly correlated with income and household welfare (Cheema et. al. 2012 a).

4.2.2. Low Social Mobility and Access to Training for Women

Data suggests that women in high poverty districts face extremely low levels of mobility (Cheema et. al. 2012 a, 2013a). This can be gauged from analyzing the location of work among young adults in high poverty districts. Figure 12 shows that labor mobility is extremely low among women with around 85% working in their locality of residence.

Figure 12: Location of Work in High Poverty Districts



Source: CERP-PEOP Baseline Household Survey

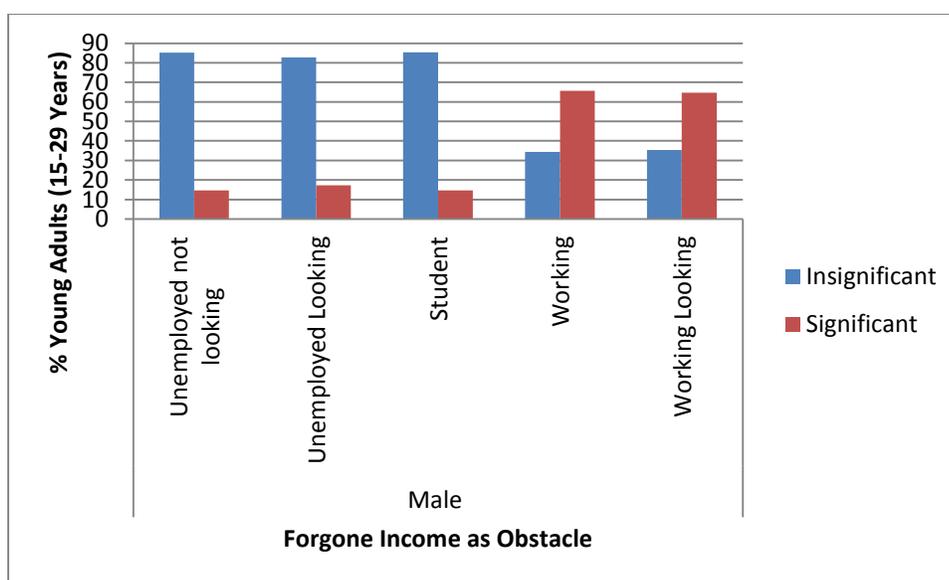
Low social mobility which is an important cause of low labor mobility among women also raises the access costs to training for women. Our surveys reveal that women express a strong demand for

locating training centers in their neighborhoods of residence (Cheema et. al. 2013a). In a recent impact evaluation of the core PSDF program for women we found that course completion rates for women fall by 6 percentage point for every kilometer increase in distance from the training centre (Cheema et al. 2013a). The most important factors that explain this drop are the inability of women trainees to arrange safe and secure transport and social constraints becoming more binding if a woman has to travel outside her locality of residence for training. We also find that bringing the training centre to the neighborhood of residence increases enrollment and completion rates among women by 30 percentage points (Cheema et. al. 2013 a). **Program design has to calibrate training locations to minimize access costs to training for women and provide secure and reliable transport if training centers are located at a distance from the locality of residence.**

4.2.3. Forgone Income as a Access Constraint for Young Working Males

In the case young males forgoing income to attend training is an important constraint that impacts their ability to access training. Evidence shows that almost sixty percent of young males cite forgone income as significant constraint to enrolling in training (Cheema et al. 2012 a). Figure 13 shows that this constraint is most binding for young adults who are either working or working but looking to change their job. As argued earlier, this is the population that skills programs should be looking to target. However, we also find that increasing stipends does not address this constraint effectively as it stimulates a much bigger enrollment response from the unemployed and students, from whom forgone income is not a big obstacle, relative to young working adult males (Cheema et. al. 2013 b). The reason for this is low expectations about finding jobs with higher earnings post-training, which makes giving up current jobs a higher risk proposition for young male adults engaged in the labor market. **Strengthening the linkage between acquiring training and obtaining jobs is the most important response that can mitigate this constraint.**

Figure 13: Forgone Income as a Obstacle to Training for Young Males



Source: CERP-PEOP Baseline Household Survey

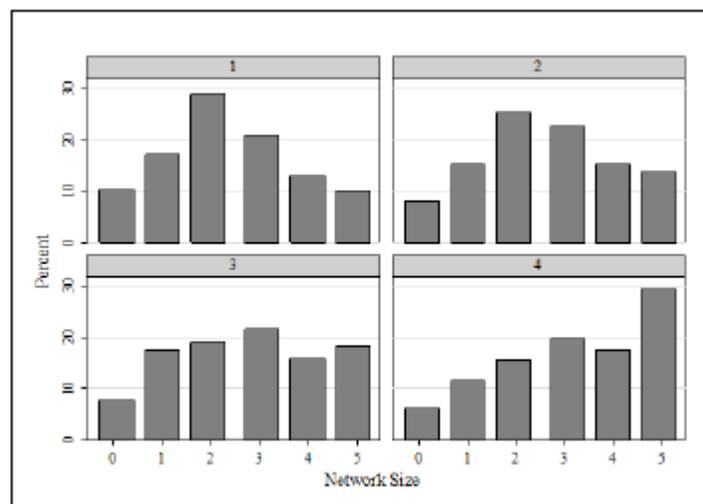
4.3. Access to Jobs and Markets: The Constraints

The factors that act as constraints on access to training are also acting as constraints on access to effective earning opportunities for young adults.

In the case of women, low social mobility is reducing access to markets, in the case of self-employed, and quality jobs in the case of job seekers. This is because local labor markets offer few quality job opportunities for women (Cheema et. al. 2012a). Another constraint is that employers in Pakistan are extremely reluctant outside a few sectors, such as education and health, to employ women (Cheema et. al. 2012 b). **Under these conditions skills training is likely to have a higher earnings impact by focusing on self-employed women. This will require adding market-linkage components to skills programs for women and tying skills programs to micro-entrepreneurship and asset transfer programs.** There is evidence which shows that tying skills training to asset transfer programs can promise high returns (Bandiera et. al. 2014). **For skills training to have an impact on earnings through jobs will require tying training to Active Labor Market Programs that create non-traditional jobs for women at the neighborhood level. An important opportunity is to tie training to public investment in schooling and local-level preventive health delivery through women. Exploiting this complementary can address the dual requirements of investment in education and health and having an impact on earnings through human capital accumulation.**

A fundamental cause of the poor link between skills training and access to jobs is the nature of job search mechanisms in Pakistan, which are dominated by personalized networks that tend to be narrow and exclusive. More than 85% of respondents in the household and employers surveys report using personalized job search networks to match workers to jobs (Cheema et. al. 2012 a and b). Figure 14 shows that the diversity of job search networks is high correlated with economic well-being of households. This suggests that individuals stuck in low earning jobs also have the narrowest networks and this is likely to impact their likelihood of getting access to quality jobs post-training. We also find considerable gender-bias in conventional job search networks (Cheema et. al. 2012 b). **Integrating effective job placement mechanisms into training programs is essential for realizing earnings and employability gains. Designing effective job placement mechanisms will require innovation and experimentation and learning about the types of information that matters for employers and ways to establish the credibility of training with them. In this regard, it is important to evaluate the effectiveness of OJT programs. It is also important to assess the returns associated with tying training to asset transfer and entrepreneurship programs given that the growth process in the country is stuck in a low quality job equilibrium. In particular, it is important to analyze the relative returns associated with in-class programs with and without job placement/OJT components and compare them with programs that tie skills to asset transfer and entrepreneurship programs.**

Figure 14: Job-Search Network Size by Consumption Quartile



Source: CERP-PEOP Baseline Household Survey

Note: An index on the scale of 0-5 is used to depict network size; where 0 represents narrowest network and 5 represents the most diverse network. 1 represents households in the bottom consumption quartile and 5 represents households in the top quartile.

5. Conclusion

Pakistan is undergoing a rapid demographic transition that is resulting in a rapid entry of young adults into the labor market. The economy needs to create 1.5 million new jobs a year to absorb this large addition to the labor force. Evidence shows that the inability to absorb this additional labor force is likely to have adverse affects on society through rising crime, violence and insecurity. The Pakistani economy has done extremely well in terms of the rate of job creation that has historically kept pace with the growth in the labor force, resulting in low rates of unemployment. Where the economy has failed working adults is in the quality of jobs it has created, which are concentrated at the low-end of the productivity spectrum and have not enabled the working population to advance up the earnings ladder. If the economy fails to improve the quality of jobs for young adults it is likely to create “an aspirations crisis” that may lead to significant disengagement with society and the state.

An important factor constraining better labor market outcomes is the low-level of human capital accumulation in the working-age population and the young adults. Educational attainment outcomes are poor among young adults who are now beyond the school-going age. The educational deficits in this population are not being offset by skills acquisition outside the school system, which is creating a large pool of young adult population with poor human capital. While skills training appears to be the most obvious pathway for building human capital in this population, it is clearly not delivering this goal at present. To address the demographic challenge skills training has to pay particular attention to young adults of both genders who are actively engaged in the labor force and are either working in low productivity employment or are looking for jobs.

Demand is not a constraint that is limiting the impact of skills training. Evidence suggests that a high demand for skills training exists among households and there is sufficient latent demand for skills among employers. There is also some evidence of positive returns to skills and young adults seem to be aware of the earnings gains associated with climbing up the skills ladder. An important constraint to skills as an effective pathway for human capital accumulation in young adults is the paucity of quality supply. Existing programs are fragmented, excessively supply-driven and do not correspond to the requirements of the market. They tend to measure impact on the number of graduates produced rather than on employability and earnings. The result is programs that include outdated or irrelevant courses, poor infrastructure and resources, little exposure to industry and a misalignment between the supply and demand of skills. To be effective, program design has to embed mechanisms that allow the demand-side to inform the composition of the training portfolio. Programs have to be underpinned by an institutionalized results framework that measures impact on the basis of quality of training provided, earnings and employability. The aim of these programs should be to deepen the supply-side in terms of quality and scale and for this they need to establish financing mechanisms that are available to a plurality of providers, tie payments to delivery in terms of placements and earnings and/or enable potential trainees to choose between diverse providers on the market.

The potential of skills training is also being dampened by constraints that are raising the cost of access to training and jobs and markets post-training. Education-related barriers to enrollment are significant. They are self-defeating as they exclude young adults with low educational attainment, which is the appropriate target group for these interventions. However, meeting the dual challenges of providing access to this population and maintaining the quality of training will require major curricular and pedagogical innovations that are currently unavailable on the market. It will also require building effective modules that create functional numeracy and literacy as part of vocational skills training. Setting up an innovation fund to seed scalable innovations that meet this goal may provide important dividends.

For women the most binding access to training constraint is distance to the training. This is a result of the social environment that lowers social mobility for women. This constraint can be mitigated by a mix of planning that carefully calibrates the location of centers and the provision of safe and secure transport for women to attend training. Low social mobility is also likely to reduce the earnings impact of training because it raises the cost of connecting to markets and quality jobs. Therefore, it is important to tie training to well-designed market linkage components. This is another set of innovations that the innovation fund can seed. Finally, to have an impact earnings will require tying training programs to asset transfer, micro-entrepreneurship and active labor market programs that create non-traditional local jobs for women through public investment.

For young adult males the most binding constraint that reduces both the attractiveness of training programs and their impact on earnings is the high costs of accessing jobs. This is the result of narrow job search networks for working adults, especially from poor and low income households that also tend to be biased against women. This suggests that integrating effective job placement into training through OJT or well-designed placement interventions is important if the impact of training is to be realized for the young adult population.

Bibliography

Aman Rana, S. (2013). “The Economic Causes of Terror: Evidence from Rainfall Variation and Terrorist Attacks in Pakistan,” mimeo London School of Economics.

Attanasio, O., A. Kruger, and C. Meghir (2011). “Subsidizing Vocational Training for Disadvantaged Youth in Columbia: Evidence from a Randomized Trial,” *American Economic Journal, Applied* 3(3).

Bandiera, O., N. Buehren, R. Burgess, M. Goldstein, S. Gulesci, I. Rasul and M. Sulaiman (2012). “Empowering Adolescent Girls: Evidence from a Randomized Control Trial in Uganda,” STICRED Working Paper.

Bandiera, O., N. Buehren, R. Burgess, M. Goldstein, S. Gulesci, I. Rasul and M. Sulaiman (2012). “Can basic entrepreneurship transform the economic lives of the poor?,” STICRED Working Paper.

Blom, A., D. Fretwell, and Y. Janjua (2009). “The Challenge for Technical and Vocational Education and Training (TVET): Creating Human Capital to Support Economic and Social Development in Pakistan”. Policy Note. World Bank: Washington, DC.

Card, D., P. Ibarrran, F. Regalia, D. Rosas-Shady, Y. Soares (2011). “The Labor Market Impacts of Youth Training in the Dominican Republic,” *Journal of Labor Economics*, 29(2).

Cheema, A., Z. Hameed, B.H. Khan (2014) “Lack of Opportunities Make the Criminal: Crime and Labor Markets in Pakistan,” Institute of Development and Economic Alternatives, mimeo.

Cheema, A., A.I. Khwaja, M.F. Naseer, J.N. Shapiro, S. Siddiqui and S. B. Sheikh (2013a). *The PEOP Skills for Market-Village Based Training Evaluation Report*, Centre for Economic Research in Pakistan.

Cheema, A., A.I. Khwaja, M.F. Naseer, J.N. Shapiro, S. Siddiqui, G. Tourek and A. Shoaib. (2013a). *The PEOP Skills for Jobs-Stipend Report*, Centre for Economic Research in Pakistan

Cheema, A. Cheema, A., A.I. Khwaja, M.F. Naseer, J.N. Shapiro, A.A. Lodhi, S. Siddiqui, S.B. Sheikh, G. Tourek, M. Niazi and A. Shoaib (2012a). *The PEOP Baseline Household Report on Skills*, Centre for Economic Research in Pakistan.

Cheema, A. Cheema, A., A.I. Khwaja, M.F. Naseer, J.N. Shapiro, M. Emeriau, S. Siddiqui, S.B. Sheikh, G. Tourek, and M. Niazi (2012b). *The PEOP Employer’s Survey Report*, Centre for Economic Research in Pakistan.

Chun, N. and M. Watanabe (2012). “Can Skill Diversification Improve Welfare in Rural Areas? Evidence from Bhutan,” *Journal of Development Effectiveness*, 2012(1).

Janjua, Y., K. Sadiq, A. Rana, and W. Bajwa. (2010). “Developing Market Led Skills and Enterprise Development Programs for Pakistan Poverty Alleviation Fund”. Mimeo. Islamabad, Pakistan.

Hicks, J.H., M. Kremer, I. Mbiti, and E. Miguel (2011). “Vocational Education Voucher Delivery and Labor Market Returns: A Randomized Evaluation Among Kenyan Youth,” Report Spanish Impact Evaluation Fund.

World Bank (2012) *Labor Market Policies Under a Youth Bulge*, World Bank Policy Paper Series on Pakistan PK 14/12: Washington, DC.