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Breaking Down the Barriers to Rural Education:
Recent Evidence from Natural and Randomized Experiments in Developing Countries

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Executive Summary

This research to policy brief reviews the recent evidence on effective methods to improve rural education in developing countries. Canada’s Child and Youth Strategy (CYS) concerning access to a quality education is analysed within this context and recommendations are generated from a large body of recent experimental evidence from around the world. This brief takes each component of CYS and derives policy recommendation based on lessons learned from the most relevant natural and randomized experiments. Natural experiments are typically large-scale government projects, whereas randomized experiments are typically smaller-scale, but focus on internal validity by relying on random assignment to treatment (program) and control (no program). Such an experimental approach is particularly useful as it allows researchers and policy-makers alike to take the evidence as causal on the effectiveness of these projects.

Policy recommendation #1: Based on existing evidence from natural experiments, school attendance and completion rates can be improved by supporting infrastructure projects, namely school construction or classroom improvements, as well as building and rehabilitating existing rural roads and rural electrification.

Policy recommendation #2: Based on evidence from Conditional Cash Transfer programs, school attendance and completion rates can be improved by relaxing households’ budget constraints. While some studies show that school attainment will rise even with unconditional transfers, conditioning on school attendance will increase the set of beneficiary children to include those most likely to be otherwise marginalized. Cash transfers to children based on school performance (e.g. merit scholarships) can be particularly effective.

Policy recommendation #3: Conditional Cash Transfers alone are not enough to raise learning outcomes. Improved school quality is central, and one of the largest challenges in improving school quality in rural areas is to reduce teacher absenteeism and improve teacher effort. Based on existing evidence, especially from a series of recent randomized experiments, strategies that increase monitoring of teacher presence and effort can be particularly effective for improving school quality. The evidence on performance pay is mixed and politically unpopular, but could also be a cost-effective way to increase learning outcomes. Finally, school and infrastructure projects and improved teaching materials could also be beneficial in reducing teacher absenteeism.

Policy recommendation #4: Vocational and on-the-job training are useful policy instruments to improve human capital acquisition for youth. To maximize their impact, special attention needs to be placed on reducing training attrition and improving the transition to the labour market. To reduce attrition, policy makers may wish to combine the training program with financial incentives to remain in training, and potentially with child care options for women trainees.

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Why invest in rural education in developing countries?

The economic and social benefits of education, especially for development, are undisputed. Higher levels of educational attainment increase individuals’ disposable earnings through higher labour market earnings and better labour market opportunities. Higher levels of education increase a country’s stock of human capital and, according to endogenous economic theory, can lead to sustained long-term economic growth through its role in generating technological change. Better educated individuals are also healthier and have fewer but healthier children. And countries with more educated citizens are also more likely to participate in the democratic process (Milligan, Moretti and Oreopoulou, 2004). These basic stylized facts are solidly grounded by a large body of theoretical research and empirical evidence.

As witnessed by the Millennium Development Goals, the international development community has aimed its efforts at improving educational attainment rates around the globe, with a particular focus on developing countries. According to the latest report, education indicators have improved in every region of the globe: primary enrolment and literacy rates have increased while the rate of out-of-school children and the gender gap in educational attainment have fallen (UN, 2013). Nevertheless, despite such improvement in aggregate educational measures globally, rural figures remain low when compared to urban figures: according to the UN (2013), rural children are less likely to be in school and, for those that are, their progress through school is considerably slower. A recent FAO study reports that 38.4% of rural children in a sample of 48 low-income countries included in the Demographic and Health Surveys had no primary education (de Muro and Burchi, 2007).

There are many reasons why rural educational outcomes might lag behind urban educational outcomes: individuals are poorer and so are less able to afford investing in their children’s schooling, and populations are sparser and more geographically isolated making the provision of educational services more difficult and even costly. Yet, even in an urbanizing world, rural education still has an important, productive role to play. A large body of evidence shows that education better positions farmers to adopt and adapt new agricultural technologies (e.g. Foster and Rosenzweig, 1995). Laszlo (2008) shows that education can also diversify the types of income generating activities in rural areas towards more lucrative ventures than subsistence farming. De Muro and Burchi (2007) document a strong relationship between rural education and health through its impact on food security. The margin of rural schooling that these studies typically consider is the primary and secondary levels. Examples such as these point to why investing in rural education can be particularly important: in addition to the stylized facts listed above on the returns to education, rural education policy can potentially deliver a large ‘bang for buck’, especially for those countries where rural primary and secondary attainment is low. This is because compared to secondary and especially tertiary education, the costs of providing primary schooling are relatively low and the (private and social) benefits are relatively high (Psacharopoulos and Patrinos, 2004).

Canadian development policy is committed to see improvements in education in developing countries. The Children and Youth Strategy (CYS) is among Canada’s efforts to contribute to the global efforts to see improvements in educational outcomes around the world. This strategy focuses on three broad areas (CIDA, 2013):
• “Improve access to basic education, particularly for girls
• Improve the quality of education and promote learning achievement by focusing on teachers and teacher training, relevant curricula, and quality teaching/learning materials
• Increase access to relevant learning opportunities for young people, in and out of school” (CIDA, 2013)

Specific barriers to education identified by CIDA include the inability of families to afford the direct costs of schooling, geographic and capacity constraints of schools, unsafe schools and conditions for travel, and poor quality of teaching (CIDA, 2013). The past decade or so has seen substantial interest, especially on the part of development economists, in identifying successful educational programs aimed at improving access to school and raising the quality of rural schooling, and in assessing their impacts on educational outcomes. There has been so much interest in this area that there already exists three survey papers on the issue (Glewwe and Kremer, 2006; Hanushek and Woessmann, 2007; and Glewwe et al., 2011). This document will thus not reinvent the wheel. Instead it will take each of the three areas of improvement identified in CIDA’s CYS and review the relevant empirical evidence. Specifically, this brief will review the recent evidence from natural and randomized experiments on how to improve basic education (especially for girls), on how to improve the quality of rural education, and how to improve earnings opportunities for youth.

Natural and randomized experiments are useful tools to evaluate policies and programs because, if conducted properly, they allow for causal inference on the effectiveness of the program. From the standpoint of identification, one of the main criticisms of programs which are not rolled out randomly is that individuals who choose to participate in the program self-select into the program. The generally unobserved process which makes participants self-select into the program (e.g. unobserved skill or ability for instance) might also positively affect post-program outcomes (e.g. education or labour market earnings for instance). In this sort of scenario, a positive relationship between ‘treatment’ (participation in the program) and any outcome (education or earnings) cannot be attributed to the program itself – the program might have simply attracted individuals who would perform well even in the absence of the program. A random assignment design can solve this problem (see Duflo et al. (2007) for a thorough discussion of this approach).

**CIDA’s CYS 1: Improve access to basic education, particularly for girls**

Access to schools means many things. First, there are a series of infrastructural and geographic dimensions to school access. For a child to attend school, it is obvious that one must be available in the child’s neighbourhood. If the school is not close by enough to walk to within a reasonable time, then access to the school can be improved if there are adequate roads and a transportation system that can facilitate travel to the school. Even if a school is nearby and there is an adequate road to it, it must be safe: dark school rooms or roads could be a deterrent to school attendance, especially for girls. Second, for a child to go to school, the household must be able to afford sending her there. This means that they need to be able to afford the direct costs such as tuition fees, books, uniforms and transportation, and the indirect costs such as the forgone income of a child laborer. The following reviews the evidence on policies and programs that have attempted to improve access to education along these lines.
Perhaps an obvious approach is to simply build more schools. Indonesia and Peru provide examples of large scale programs that invested in school infrastructure. Most famous is the INPRES project in Indonesia, analysed by Duflo (2001). Financed mainly using oil revenues, the Indonesian government built over 60,000 primary schools over a five year period starting in 1973, representing one school per 1,000 children. Duflo (2001) found that this substantial increase in the number of schools lead to an increase in educational attainment of an average of 0.12 to 0.19 years of schooling for men, with sizable increases in their economic returns from schooling. To put this number in perspective, the program lead to an increase in primary school enrolment from 69% to 83% for men in just three years. While Breierova and Duflo (2004) focus on maternal outcomes of the school expansion program, they nevertheless find that the rolling out of new schools under INPRES also had a strong and statistically significant effect on women’s educational outcomes.

Similarly, Paxson and Schady (2002) provide an early assessment of the educational impact of Peru’s Social Investment Fund (FONCODES) during the 1990s. During a six year period starting in 1992, slightly more than 25% of all FONCODES funding (amounting to approximately the equivalent of US$ 466 million) was allocated to building and improving school infrastructure (mainly classrooms). As in the case of Indonesia, Paxson and Schady’s study finds that increased school infrastructure improved access to schools, especially for the rural poor, and that school attendance increased, especially for young children.

But even with increased school infrastructure, access to schools will be limited if there are only few or no roads to get to them – the travel costs could be prohibitive, or if these roads are unsafe. Mu and van de Walle (2007) provide an impact assessment of Vietnam’s Rural Transport Project on a number of socio-economic outcomes. This project rehabilitated over 5,000 km of rural roads. They find that primary school completion rates rose by 15 to 25% four years after the program started. Khandker et al. (2006), meanwhile, assess the impact of a similar project in Bangladesh and find that school attendance rose by approximately 14% for boys and girls, and that the project benefitted poor households disproportionately more than rich households.

The World Bank has also evaluated rural electrification projects in Vietnam and Bangladesh. Electrification can be important to rural education in two important ways: it can prolong the time spent in school or doing homework at home, and it can also improve safety in school and travel to the school. Khandker et al. (2009) assess the impact of a World Bank electrification project in Vietnam that began in 2000. The project rolled out grid connection to 900 communes over a four year period. They find that school enrollment increased in communes receiving electricity. Specifically, they find that boys’ enrolment increased by 17% and by almost 15% for girls.

Policy recommendation #1: based on existing evidence from natural experiments (large scale projects), school attendance and completion rates can be improved by supporting infrastructure projects, namely school construction or classroom improvements, and by supporting the building and rehabilitation of existing rural roads and rural electrification.

But simply building schools and their supporting infrastructure such as roads and electricity will not be enough to guarantee that the children will go to school. Rural households in developing countries are often income poor and may not be able to afford the direct costs of schooling such as tuition fees,
books, uniforms and transportation. In addition, they may rely on their children for farm or household labour and so the opportunity cost in time, the indirect cost of schooling, could be prohibitive.

Conditional Cash Transfer (CCT) programs have been a revolution in the provision of educational services in developing countries (and in some cases in developed countries as well). The idea of a CCT is to provide a cash transfer to families as long as they meet a number of conditions. Most CCTs will include enrolment and a minimum attendance record as conditions for receipt of the cash transfer, and many will also add visits with a health professional to the set of conditions. The highly successful prototype, PROGRESA, was first implemented as a randomized controlled experiment (RCT) in rural Mexico beginning in 1997. The experimental phase showed such considerable success in terms of take-up and outcomes that it was scaled up as Oportunidades in 2000 to increase coverage, both geographically and to secondary schooling. The long-term impacts of PROGRESA-Oportunidades have now been evaluated by Behrman, Parker and Todd (2011). They find considerably strong and robust effects on educational attainment by 2003, with children in treated schools (participating in PROGRESA-Oportunidades) completing a greater number of grades by on average approximately a fifth of a grade more relative to children in non-treated schools. This effect is however strongest for those who had completed fewer than 5 grades when the project started, and for girls.

Fiszbein and Schady (2009) provide a comprehensive review of CCTs around the world and find significant effects on both school enrolment and attainment. To deal with the often large gender gap in educational outcomes, some CCTs specifically target girls. For instance, Khandker, Pitt and Fuwa (2003) and Chaudhury and Parajuli (2006) find significant effects in Bangladesh and Pakistan: female enrollment increased by 12% and 11%, respectively. Similarly Filmer and Schady (2008) document huge impacts on transition to lower-secondary for girls in Cambodia.

Akresh et al. (2013) test for the role of conditionality in a Cash Transfer program in Burkina Faso. In their study, the program was designed as an RCT to evaluate whether CCTs are effective in raising educational outcomes because they relax the budget constraint, or because the cash transfer is tied to the enrolment and attendance condition. The distinction is highly relevant for policy makers because an unconditional cash transfer (UCT) is measurably easier and less costly to administer than a conditional one. Their program randomized who received the UCT and who received the CCT. Their results show that both the UCT and the CCT increased school attendance, but the CCT was more likely to improve attendance records for “marginal children”, that is for children who are least likely to attend schooling in the absence of the program: young children, girls and low-ability children.

Findings from many CCT programs thus find large effects on enrolment and attendance, though little effect on actual test scores or school achievement (Fiszbein & Schady, 2009; Akresh et al., 2013). Several explanations can be proposed. First, school quantity increases, but not school quality: teacher quality remains low or the pupil-teacher ratio rises with the increased enrolment. Second, school attendance comes at the expense of child leisure and not child labour, and so children are too tired to learn. Third, the incentive for the child is centered on attendance rather than learning.

Kremer et al. (2009) offer evidence of providing learning incentives to students. Their paper evaluates the outcomes of an RCT on merit scholarships in two rural districts in Kenya. They find that test scores did indeed increase for girls who were (randomly) eligible to receive the scholarship. Surprisingly, they also find that teacher attendance rose as a result of the scholarship, despite the fact that the
intervention was targeting the student and not the teacher. The logic is that the merit scholarships provide a positive externality: the more students received the scholarship, the more recognition the school received. The authors posit several explanations for this externality on teacher effort: the scholarship and public recognition could increase ego rents for teachers, increase social prestige, increase gifts to teachers from parents of winning children, or even simply increase parental monitoring of the classroom environment. This last observation suggests that teacher effort can lead to increased learning opportunities in the classroom, a topic which we turn to next.

Policy recommendation #2: based on evidence from Conditional Cash Transfer programs, school attendance and completion rates can be improved by relaxing households’ budget constraint. While some studies show that school attainment will rise even with unconditional transfers, conditioning on school attendance will increase the set of beneficiary children to include the most likely to be marginalized. Nevertheless, CCTs are not enough to raise learning outcomes, which require either increased school quality or cash transfers to children based on school performance (e.g. merit scholarships).

CIDA’s CYS 2: improve the quality of education and promote learning achievement, with special focus on teachers and teacher training, relevant curricula, and quality teaching/learning materials

There are many ways to improve the quality of education. We begin by addressing those mentioned in the CYS 2. Recent evidence from China (Zhang et al, forthcoming) shows little effect of teacher training on learning outcomes in elementary school. The evidence from other studies cited in Zhang et al. and in Glewwe et al. (2001) is at best mixed concerning the effectiveness of teacher training on outcomes. However, school infrastructure such as basic furniture, blackboards, libraries and building infrastructure tend to have very large and significant impacts on student test scores (see Glewwe et al’s (2011) review article). Similarly, teaching and learning (pedagogical) materials have substantial positive effects on learning outcomes, as does Computer Assisted Learning, although the latter is quite expensive (Glewwe et al., 2011). One possible reason why better classroom infrastructure and learning materials might improve learning outcomes is that they might reduce teacher absenteeism (Kremer et al., 2005).

Probably the single most important determinant of the quality of rural education identified in the recent development economics literature is teacher absenteeism. A World Bank study (Chaudhury et al., 2006) conducted surveys of public service providers (teachers and health professionals) in several developing countries (Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda) through unannounced visits to primary schools and health clinics. Their results were astonishing and confirmed anecdotal evidence from around the world: teacher and health professional absence was as high as 27% for primary school teachers (Uganda) and 40% of health professionals in primary health centers (India or Indonesia). And even if the teacher was present at the school, their survey found that many were not actively teaching or even physically in the classroom. According to Kremer et al. (2005), multi-grade teaching is also positively associated with increased teacher absence. These findings prompted a surge in research

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1 Glewwe et al. (2001) reviewed 79 studies on education in developing countries, and they found that out of 29 estimates of the effectiveness of teacher training on student learning outcomes, more were statistically insignificant (17) than significantly positive (11).
interest on explaining such high absenteeism and what programs and incentives could induce increased teacher effort.

While Chaudhury et al. (2006) and Banerjee and Duflo (2006) provide surveys of the literature on teacher incentives and absenteeism, we focus here on some specific programs that seemed to work. One of the most innovative approaches to reducing teacher absenteeism and increasing teacher effort comes from the RCT evaluated by Duflo, Hanna and Ryan (2012). The RCT in their study was run in rural India and included 120 single teacher, non-formal, schools in isolated areas. One approach to increase teacher attendance is to increase monitoring. The RCT in question evaluated the effectiveness of a program in which tamperproof cameras were provided to teachers in 60 randomly selected schools in rural Rajasthan (the remaining 60 were left as controls). Teachers who received the cameras were required to take (date-stamped) photographs of themselves and their students at the beginning and end of each day, and they would be compensated as a function of the number of days they were present, as witnessed by the photographs. Their results show that the program (camera monitoring and financial incentive linked to photographed attendance) had a sizable impact on treatment schools (absenteeism of only 21% compared to 42% in control schools) as well as on students’ test scores (which increased by 0.17 standard deviations more than in control schools after one year).

Another method to reduce teacher absenteeism and improve teacher effort is to manipulate contracts between the teacher and the school, as is done for instance in Duflo, Dupas and Kremer (2012). This paper studies how school governance and contract teaching in rural Kenya can have implications for both teacher absenteeism and student learning outcomes. Civil-servant teachers, in the rural Kenyan setting of their study, are unionized and have some degree of job security. In their study, the intervention consisted of hiring local contract teachers, hired by Parent-Teacher Associations (PTAs). These contract teachers received a salary of approximately one quarter of the salary of civil service teachers. Students would be randomized between classrooms receiving the contract teacher and those who did not, in order to evaluate the effect of the intervention.

Introducing contract teachers hired by local PTAs can have an effect on learning outcomes for three main reasons. First, it reduces class size (itself a measure of school quality). Second, contract teachers have different incentives than civil servant teachers as they might be hopeful that strong effort will be rewarded by the transition into the more lucrative and secure civil service teaching positions. Third, as they are hired locally, PTA members might be better positioned to monitor effort, and are empowered to ensure effort is exerted on the part of contract teachers. However, there is concern that the additional teachers may have negative effects on the educational environment due to elite capture. Specifically, with lower class size, the civil servants might be inclined to reduce total effort, and might try to secure contracts for their relatives. Such consequences would result in dampening the positive effects of additional teachers. With this last mechanism in mind, the authors introduce an additional treatment by providing local PTAs with School-Based Management training on how to hire and how to monitor and evaluate teacher effort.

Duflo, Dupas and Kremer (2012) find that contract teachers are less absent and that children’s learning outcomes improved as a result of the intervention. Nevertheless, they also find evidence of elite capture, as absenteeism among civil servant teachers went up in intervention schools, and they also find evidence that contract teaching positions were indeed awarded to relatives of civil servant teachers. The
School-Based Management treatment nevertheless reduced such elite capture. The results of their analysis suggest that the type of teacher contract matters and that monitoring by Parents Associations can be particularly effective.

The most effective type of teaching contract has been investigated in two important papers on performance pay in Kenya (Glewwe, Ilias and Kremer, 2010) and in India (Muralidharan and Sundararaman, 2011). Performance pay contracts in teaching are those that directly link teachers’ compensation to students’ learning outcomes such as test scores. These are typically unpopular among teachers who suggest that much of the effect of their work on student outcomes is not measurable by a test score. Others criticise performance pay schemes out of a concern that they cause teachers to teach to the exam. Yet, there is evidence that test scores do indeed improve with performance pay schemes. Glewwe, Ilias and Kremer (2010) for example evaluate a performance pay scheme in Kenya and find that while test scores are indeed higher for children randomly assigned to schools with performance pay, the effects are short-lived and do not translate into lower drop-out rates or lower teacher absenteeism.

Results in Muralidharan and Sundararaman (2011) are nevertheless more promising. They evaluate a performance pay scheme in India using a RCT design. Specifically, the program considered two different treatments: one randomly selected set of primary schools received a group bonus allocated as a function of school performance, while another randomly selected set of schools received an individual bonus as a function of teacher performance. Their results suggest that there are strong and long-lived effects on test scores, especially for the individual bonus treatment, and especially for maths and language. They find that the results seem largely driven by teacher effort as opposed to reduced teacher absence, for which they find little evidence. Perhaps one explanation for the positive result of teacher effort is that more educated and skilled teachers were more likely to respond to the incentive.

Policy recommendation #3: one of the largest challenges in improving school quality in rural areas is to reduce teacher absenteeism and improve teacher effort. Based on existing evidence, especially from a series of RCTS, strategies that increase monitoring of teacher presence can be particularly effective, such as the use of cameras or monitoring by local Parent Teacher Associations. The evidence on performance pay is mixed and is politically unpopular, but it could be a cost-effective way to increase learning outcomes. Finally, school and infrastructure projects and improved teaching materials could also be beneficial in reducing teacher absenteeism.

CIDA’s CYS 3: increase access to relevant learning opportunities for youth, in and out of school

Most of the programs reviewed above focus on primary school-aged children. We now turn our lens to adolescents and youth, and consider how human capital investment programs can target this demographic, whether they are in school or not. Probably the most common type of program considers vocational or on-the-job training. There have been numerous such programs in both developed and developing countries, but we focus on the ones that have been evaluated in developing country settings.

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2 As discussed in Glewwe, Ilias and Kremer (2010), it is not clear how to reconcile the different results in the two papers – some of the difference might be due to differences in the Indian and Kenyan educational environments, some might be due to differences in the incentive program parameters.
Despite the pervasiveness of these programs, especially in Latin America, gleaning conclusive causal effects of their implementation is tricky. First, few have been designed using random assignment to training. This matters because if trainees can self-select into training programs, then we cannot determine whether any positive effect post-training is due to positive (i.e. high skill and ability) selection into the training or due to the training itself. Second, job training programs tend to be associated with high attrition rates, especially among youth: job-training programs have very high drop-out rates. Particularly worrisome is if low-ability types are more likely to attrite from the program, making any positive effect of the training biased upwards.

The evidence of the effectiveness of youth training programs on labour market outcomes are mixed. Card et al.’s (2011) evaluation of the Dominican Republic’s Juventud y Empleo job training program finds little effect on the probability of obtaining employment. Meanwhile Attanasio et al.’s (2011) evaluation of Colombia’s Jóvenes en Acción finds significantly large effects on women’s post-training employment status. Both studies find modest earnings effects, conditional on finding employment. While both these studies evaluate job training programs that were instituted using RCT designs, neither is able to correct their treatment effects for non-random attrition.

Cho et al. (2013) handle this issue with an on-the-job training program in Malawi, which is implemented using an experimental design: a randomly selected group of 15-25 year olds received vocational and entrepreneurial training, and the authors evaluate the outcomes of this training. They are also able to track program drop-outs and thus understand the motives for attrition. They find that the training lead to increases in skills and human capital, especially for men, however, these positive effects did not translate into better labour market outcomes. Their results also point to very large gender differences in training attrition: women were more likely to drop out, largely due to family constraints (marriage and motherhood), and they are also more financially constrained.

Useful insights into this last issue can be drawn from Baird, McIntosh and Özler’s (2011) evaluation of a CCT program, also in Malawi, which targeted adolescent (aged 13-22) girls. Their study, which like Akresh et al. (2013) evaluates the conditionality component, finds that cash transfers (conditional or unconditional) lead to significant decreases in drop-out rates as well as increases in learning outcomes (test scores). The results, not surprisingly, are stronger for conditional transfers. An additional outcome of interest is that the CCT appeared to have reduced teenage pregnancy and marriage rates among treatment girls.

Taken together with Cho et al. (2013), these Malawi results support the importance of financial constraints on participation in training programs, suggesting that policymakers wishing to increase skills among youth should consider financial support or incentives for vocational or job training programs. This is further substantiated by Blattman et al’s (2013) evaluation of a Cash Transfer vocational training program in Uganda. They find significantly higher take-up of skills training among the 16-35 year old unemployed youths who received the cash transfer.

One particular limitation to any job training program, especially in rural areas, is the availability of jobs which demand these skills. Heath and Mobarak (2012) show that the huge explosion in the garment sector in Bangladesh had sizeable effects on enrolment of 5-10 year old girls. Thus, job training programs in rural areas will not make much sense unless there is demand for those skills. Whether
policy makers are able and willing to support the relocation of manufacturing industry in rural areas will need to be balanced against the general equilibrium consequences of doing so.

Policy recommendation #4: vocational and on-the-job training can be useful policy instruments to improve human capital acquisition for youth, but to maximize their impact, special attention needs to be placed on reducing training attrition and improving the transition to the labour market. To reduce attrition, policy makers may wish to combine the training program with financial incentives to remain in training, and potentially with child-care options for women trainees.

Conclusions

The benefits of increased educational attainment are undisputed: higher earnings and better labour market opportunities, better health outcomes, fewer and healthier babies, increased civic participation, etc. In a rapidly urbanizing world, one may wonder about the merits of investing in rural education. On the one hand, there could be large gains in these outcomes since rural educational attainment rates are relatively low as compared to urban rates. On the other hand, lucrative labour market opportunities in which individuals can use their skills are few and far between in rural areas. Besides, the quality of rural education is typically lagging from that in urban schools, and even the quality of urban education is lagging that of developed countries.

Yet, the economic and social benefits of rural education are there, and they are strong. Education can also better prepare rural populations for the challenges faced from increasingly rapid urbanization and industrialization, a process which itself may speed up as a result of a more educated rural population in search of urban labour market opportunities. Nevertheless, the problems of poor access to schooling and low quality education require solutions. This policy brief has reviewed the recent evidence from a large body of evaluations from natural and randomized experiments in economics. The last few decades have seen the complementarity between the development of experimental methods in economic development and a willingness on the part of governments and donors to generate evidence-based policy. With these tools and evaluated programs, this policy brief takes Canada’s Child and Youth Strategy to the evidence on the programs which have been shown to work and why.

Breaking down the barriers to rural education has successfully been achieved in many countries using Conditional Cash Transfers to relax households’ budget constraints, by improving rural roads and rural electrification to reduce transportation costs and improve safety of school children, improving their attendance, by monitoring and contracting to reduce teacher absenteeism, and by combining both vocational and job-training with income support to youth to increase marketable skills.

The big challenge for the development and policy community will be whether these programs can be scaled up effectively. Much of the existing evidence cited in this brief comes from relatively small projects. Yet, increasingly, these projects are being scaled up, such as Mexico’s PROGRESA-Oportunidades Cash Transfer program, and the longer-term evidence is promising. The evidence in this brief suggests much hope that these barriers to rural education can indeed be broken down, even if only one barrier at a time.
References


