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EQUALITY FOR ALL?

EGYPT'S FREE PUBLIC HIGHER EDUCATION POLICY BREEDS INEQUALITY OF OPPORTUNITY

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In this edition of Policy Perspective, Research Fellow Ragui Assaad writes that the common MENA countries policy of providing free public higher education is a misguided one. He explains that while such policies were adopted to ensure equality of opportunity, in Egypt they've led to the opposite; a system when scarce public resources actually subsidize the rich at the expense of the poor.

Most MENA countries pursue some form of free public higher education policy entitling all those who qualify to free, or virtually free, enrollment in state-run higher education institutions. These policies were adopted with the express purpose of ensuring equality of opportunity in access to higher education and to expand access to people from all social classes and backgrounds. Using data on Egypt, I argue that such a policy has failed utterly in achieving its stated objective and has resulted in a higher education system that is as far from the ideal of equality of opportunity as it could possibly be. In fact, I show that, in the Egyptian case, the free public higher education policy is simply ensuring that scarce public resources are generously subsidizing the education of the well-to-do at the expense of the poor, who are virtually excluded from the higher education system. Based on a definition of equality of opportunity that

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About the author



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states that individuals should be rewarded on the basis of their effort rather than according to predetermined circumstances over which they have no control (Roemer 1998), I show that access to higher education in Egypt is almost wholly determined by circumstances—such as family background and wealth—leaving very little scope for effort or even innate ability. More specifically, I show that an individual whose parents are both university educated, are from the highest wealth quintile and who live in the urban governorates (whom I term “most privileged”) has a 98.5 percent chance of accessing higher education as compared to a 5.5 percent chance for an individual whose parents are both illiterate, are from the lowest wealth quintile and live in rural Upper Egypt (whom I term “most deprived”). I argue that this outcome is the result of the working of the pre-university system and, in particular, the way it tracks young people into the general—versus technical—secondary streams after the ninth grade.

Rectifying this highly inequitable situation requires fundamental changes throughout the education system. However, correcting the severe misallocation of public resources within higher education can be achieved by abandoning the principle of free higher education for all, in favor of a number of policy options that allow public universities to charge tuition and fees, and that use available public resources to provide subsidies targeted to the most deserving so-

cial groups to defray these costs. Such an approach would allow universities to expand and improve the quality of their educational offerings, while ensuring that those with more limited means achieve more equitable access to higher education.¹

1. Is Free Higher Education in Egypt Coming at the Expense of Equality of Opportunity at Lower Levels of Education?

Free higher education in all state institutions was instituted by presidential decree in 1962, after a period of gradual reductions in tuition fees, extensive exemptions and generous financial aid (Faksh 1976). The right to a free education at all levels, including higher education, was later enshrined in the Egyptian constitution in 1971. While pre-university education is ostensibly free, a strong case can be made that it does not receive its fair share of public resources spent on education, with the result that it becomes far from free. Success at the pre-university, which can be proxied by whether one is able to enroll in higher education and the kind of higher education one is able to enroll in, is almost wholly determined by the resources that the parents are able to provide to supplement the inadequate public investments.

Egypt’s public expenditures on education as a percent of GDP are modest at best. At 4.1% of GDP, Egypt’s public expenditures on education are lower than the MENA and OECD averages (4.5% and 4.7%, respectively) and just slightly above the average for low-middle income countries (4%).² However, Egypt is a clear outlier on the extent to which it favors higher education in its education budget.

¹ For further discussion of how to ensure more equitable access and public financing of higher education, see El-Arabi et al. (2009), El-Baradei (2009), OECD and World Bank (2010).

At 28% Egypt's high education share in public education spending is significantly higher than that of the average for Low and Middle Income countries (18%) and even higher than that of OECD countries (24%). Egypt is also very much of an outlier when it comes to how much the government spends per student in higher education relative to either GDP per capita or to per-student spending on pre-university education. Per student spending on higher education amounted to 46% of per capita GDP, on average, between 2005 and 2008, as compared to an average of 27% in low-middle income countries and 19% in OECD countries. Similarly, the ratio of spending per student in higher education relative to pre-university education averaged 3.2 in the same period in Egypt, as compared to only 1.1 in OECD countries. This evidence suggests clearly that public spending on education in Egypt is highly skewed toward higher education, thereby underinvesting in pre-university education and stacking the deck against those who cannot afford to significantly supplement public expenditures at that stage..

2. Access to Higher Education by Social Background

In what follows, we use data from the Survey of Young People in Egypt (SYPE) carried out in 2009 by the Population Council and the Information and Decision Support Center of the Cabinet (IDSC) to examine access to higher education by social background. The background variables we consider are father's and mother's education, parental wealth, location of residence, both in terms of urban/urban slum/rural status and region. A wealth index is calculated on the basis of the household's ownership of a number of durable goods and the quality and size of the dwelling. Households are then classified into five wealth quintiles from lowest to highest based on the value of this index. We focus

on young people from age 20 to 29, to ensure that if they are still studying they would most likely be at the university level and their final educational status would already be revealed.

We begin by observing the association between each of these background variables and educational attainment specified as below secondary, secondary or post-secondary but not university, and some university and above. Because these background variables are correlated with each other, these simple associations don't allow us to establish the net effect of each variable, keeping all else constant. We do that by estimating a regression model that allows us to simulate the impact on educational attainment of changing each of these variables at a time or any combination of the background variables. As an illustration we show in Figure 1a and 1b, the observed effect of wealth when no other variables are controlled for and the predicted effect of wealth when other variables are held constant.⁴

As shown in Figure 1a, without holding other background variables constant, an individual's chances of going to university are very strongly associated with wealth, going from 9 percent for those from the lowest quintile to 80 percent for those from the highest quintile. While the predicted probabilities appear lower because they refer to individuals both of whose parents are illiterate, they show that

² Data refers the average for the period from 2005 to 2008 and from the countries in the groupings for which data was available in World Development Indicators 2010.

³ The details of the analysis are presented in Assaad and Krafft (2010).

⁴ The prediction is carried out for a reference individual who is a 29 year-old male living in urban governorates whose parents are both illiterate.

the net effect of wealth on educational attainment remains very powerful. A individual whose parents are in the top quintile has twice the chance of going to university than one in the next richest quintile, and more than six times the chance of someone from the bottom quintile, keeping all other background variables constant. If equality of opportunity in educational attainment prevailed, the probability of university education would be the same across the wealth distribution, suggesting that we are far from this ideal in Egypt.

Parental education has an equally powerful effect on access to higher education. Keeping all other factors constant, an individual whose father has a university education is nearly 1.5 times as likely to go to university as one whose father completed secondary and four times as likely to go as one with an illiterate father, holding everything else, including wealth, constant. Mother’s education has an even stronger effect. An individual whose mother went to university is 2.5 times as likely to go to university as one whose mother completed secondary and seven times as likely to go as one with an illiterate mother, holding everything else constant. Why does parental education, especially mother’s education, have such a powerful effect on access to higher education after accounting for wealth? The answer probably lies in the help and encouragement an individual gets from parents. When school quality is low, parents must provide a great deal of support to make up for the deficient education their children receive in school and more educated parents are more successful in providing such assistance than uneducated ones. Thus an important part of the inequality of opportunity in education attainment that we observe in Egypt is due to the inability of most children without adequate help at home to do well enough to reach university.

Figure 1a: Observed Association Between Educational Attainment and Parental Wealth

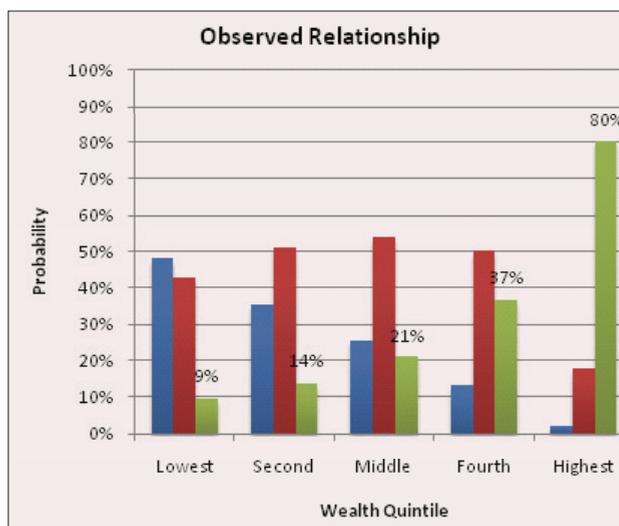
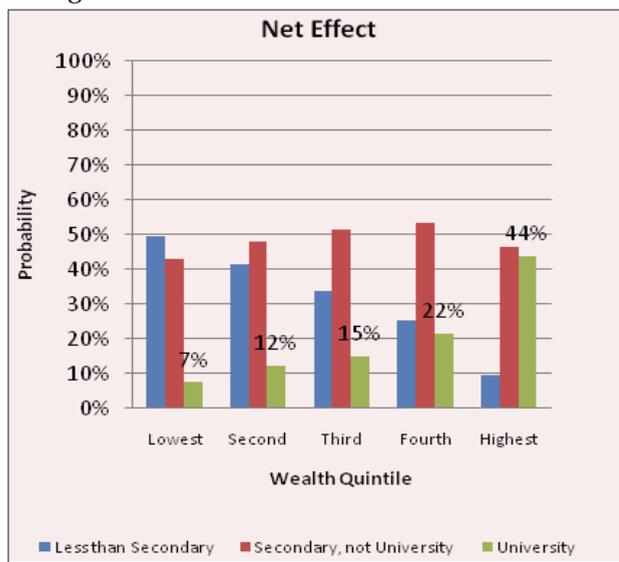


Figure 1b: Net Effect of Wealth on Educational Attainment when all other Background Characteristics are Held Constant



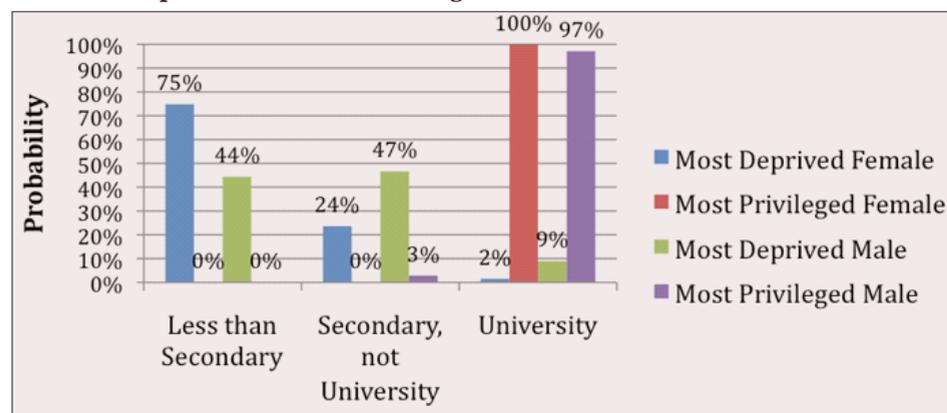
Source: Assaad and Krafft 2010

While there are important observed regional differences in educational attainment, the region of residence does not have an important net effect on attainment once other background variables have been taken into account. Surprisingly, people living in Lower Egypt do better in terms of access to both secondary and university education than those living in the urban governorates, everything else remaining constant. Those living in Upper Egypt perform as well as those living in urban governorates, but those living in the border governorates do worse. These results suggest that the geographical availability of higher education institutions is no longer a problem with regard to access to higher education with the exception of people living in the border governorates. Additional analysis shows that when the data is disaggregated by gender, women from rural and poor backgrounds do encounter geographical barriers to access to higher education.

Our model allows us to simulate the impact of all the background variables combined on educational

attainment. We define two profiles, a most privileged individual and a most deprived individual. The most privileged individual is from the top wealth quintile, who lives in the urban governorates and has parents that are both university graduates. The most deprived individual is from the bottom wealth quintile, who lives in rural Upper Egypt and has parents who are both illiterate. Figure 2 shows the probability of achieving less than secondary, secondary but not university, and some university or above for a most deprived and most privileged boy and girl. The results are striking. Almost all the possible variation in the outcome is explained by the background variables. A most privileged boy has a 97 percent probability of pursuing higher education compared to only a 9 percent probability for the most deprived boy. Inequality of opportunity is even more extreme in the case of girls, where a most privileged girl has nearly a 100 percent probability of going to university as compared to only a 2 percent probability for a most deprived girl. This large variation in access to higher education explained by a few background variables underscores the

Figure 2: Predicted Probability of Attaining Less Than Secondary, Secondary and University Education for Most Deprived and Most Privileged Males and Females



Source: Assaad and Krafft 2010

very limited role played by innate ability and effort, which should be the main variables determining access in any meritocratic system.

The fact that girls' access to higher education is even more affected by background variables than that of boys can be explained by a well-known pattern whereby a girl's education is often considered as more of a luxury by parents as compared to a boy's education, which is treated as a necessity. We would therefore expect that investment in girls' education would be more responsive to changes in income than investment in that of boys. The fact that the most privileged girls are even more likely to reach higher education than the most privileged boys can be further explained by the fact that girls tend to perform better, on average, on standardized tests, all else being equal.

3. Precursors to Inequity of Access to Higher Education

How can such inequitable access to higher education be explained in the presence of free public higher education and an ostensibly meritocratic admissions system that depends exclusively on performance in standardized tests? The answer to that question lies in the workings of the pre-university system and the way in which children are tracked in university-bound and non-university bound tracks. Although access to secondary education has become fairly common, with more than 35 percent of even the most deprived group being able to pursue some form of secondary education, the key filter in terms of access to higher education is the way people are tracked into general versus technical secondary streams.

To illustrate this, we track a group of young people through their educational trajectory starting from school entry to completion of university. To ensure

that most have completed their educational cycles, we focus on the 25 to 29 year-olds that show up in the SYPE 2009 sample. Among this group, 87 percent have gone to school and, of those, 86 percent have continued on to the preparatory stage. Eighty six percent of those (or 62% of all 25-29 year-olds) continued on to the secondary stage, with about one third going to general secondary and two thirds going to technical secondary. The vast majority of those who pursued general secondary (94%) went on to higher education (76 percent to universities and 18 percent to 2 and 4-year institutes), but only 9 percent of those who went to technical secondary were able to do the same, with fewer than a third of them able to get into a university proper. With nearly universal access for those who pursue general secondary and virtually no access for those in technical secondary, that selection becomes the main filter in terms of access to higher education. It is therefore worthwhile to examine that selection process more carefully to understand its determinants.

Taking the group of 18 to 29 year olds who actually made it to the secondary stage, we examine the factors that explain their selection into general versus technical secondary.⁵ To the background variables considered above, we include, in additional specifications of the model, the score in the standardized preparatory exam, which is the primary basis upon which the education system tracks students into general versus technical secondary. Our findings indicate that the social background variables have a powerful effect on the selection. The largest net effect comes from mother's education, with an individual whose mother is university educated having three times the chance of pursuing the general secondary track compared to one whose mother is

⁵See Assaad and Krafft (2010) for more details.

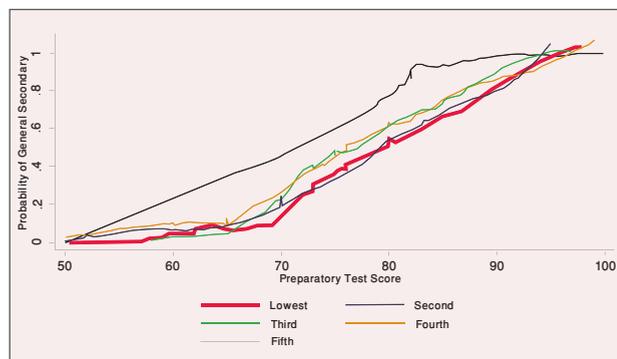
illiterate, with the main effect being attained after the mother has reached a secondary degree herself. Father's education has a somewhat smaller net effect, because some of the effect is transmitted through the wealth variable. Wealth has a strong effect on the selection, especially for the fourth and fifth richest wealth quintiles. An individual in the top wealth quintile is 2.6 times more likely to pursue general versus technical secondary education than one in either the poorest or second poorest quintiles, all other factors held constant.

The effect of these background variables remains even after the score in the preparatory exam is accounted for. This suggests that they do not simply operate through the child's improved performance in the exam beyond the minimum necessary to qualify for enrollment in the general secondary track. As we will see below, many children who qualify to enroll in general secondary schools on the basis of the score refrain from doing so for a variety of reasons associated with social background.

With regard to the role of gender, we find that, conditional on reaching the secondary stage, girls are more likely to pursue the general secondary track. This effect disappears when the score in the preparatory exam is controlled for, suggesting that the girls' advantage is entirely explained by their higher average exam scores.

Again, combining all the background variables into a most privileged and most deprived profile, we find that a most privileged child has a 97 percent probability of accessing the general secondary track, whereas that probability drops to 20 percent for a most deprived child who succeeds in reaching the secondary stage. Combined with the differential chances of reaching the secondary stage, these odds clearly explain the vast differences in access to higher education shown above.

Figure 3: Preparatory Test Scores and General Secondary by Wealth



Source: Assaad and Krafft 2010

As mentioned briefly above, not all those who qualify for access to general secondary actually do so. Figure 3 below shows the observed probability of accessing general secondary by score in the preparatory exam for children from the five wealth quintiles. The figure shows that under the cutoff score of 70, a very small proportion of children other than in the top wealth quintile are able to access general secondary. Children below that score do not qualify to pursue general secondary education in a government school and must do so in a private school. The striking finding though is that even after this cutoff score, the proportion pursuing general secondary only increases gradually. Even at a score of 80, about half of the children in the bottom two quintiles and 40 percent of students in the next two quintiles opt for the technical secondary track. Only those in the top quintile are almost universally enrolled in general secondary at a score of 80 and above.

These findings suggest that parents of modest means make a calculated decision as to whether to enroll their children in the university-bound general secondary track. The decision is likely made on the basis of the following factors.

First, parents know that succeeding in general secondary and receiving a good enough grade at the end of it to enroll in a decent faculty requires significant investments in private tutoring to supplement the deficient education their children are likely to receive in school. Moreover, they know that children will require significant assistance in their studies from the parents themselves, especially the mother, in order to succeed in the general secondary track. Parents with less than secondary education, knowing that they are unable to provide such assistance, simply refrain from enrolling their children in general secondary schools. There may also be a geographic barrier in the lack of availability of general secondary schools in many villages, leading to the need to commute. Finally, parents who do not wish their daughters to leave their hometown to pursue higher education will simply enroll them in technical secondary schools to forestall that possibility altogether.

4. Conclusions and Policy Implications

I have demonstrated in this preceding analysis that a policy designed to achieve equality of opportunity in access to higher education, namely free public higher education to all those who qualify for it, has resulted in a situation of extreme inequity in access. Admittedly, the inequity in access is due to the workings of the pre-university system and its inability to prepare children from households with limited means and lower levels of education to qualify for university admission. The end result, however, is the expenditure of significant public resources on higher education; resources that almost exclusively benefit the better-off group. An analysis of the incidence of public expenditures carried out by the World Bank shows that 45 percent of public expenditures on higher education go to the top quintile of households and that 68 percent go to the top two quintiles. The bottom quintile benefits from no more than 3 percent of these public resources

(World Bank 2002). I also showed at the outset that Egypt is an outlier internationally in terms of the public resources it allocates to higher education relative to pre-university education.

Given these findings, I have argued that the justification for the policy of free public education introduced in the early 1960's (see footnote 2) have been entirely undermined and a new policy framework is needed. The basic principle guiding such a new framework is that public funds in support of higher education should be targeted to the groups that are deserving of public assistance and that more able groups should pay their own way. A limit number of merit-based scholarships for the best performing students need not be targeted on the basis of need. The major challenge in implementing this principle is the state's ability to identify the more deserving groups in order to target them with assistance. This is not an insurmountable challenge in light of the fact the Ministry of Social Solidarity is already developing such a system to target social assistance and eventually food subsidies. The same system will be used to target subsidies for health insurance by the Ministry of Health. A system of targeted educational scholarships and subsidized loans is therefore not hard to imagine in a context where public universities are allowed to charge fees to cover their operating costs. In the short run, until such a system of targeted scholarships can be developed, free public education can be withdrawn from specific groups that can clearly afford to pay fees, such as those enrolled in private secondary schools or those from families that are not eligible for ration cards.

Admittedly, the fact that free public education at all levels is enshrined in the Egyptian constitution makes these proposed policy change considerably more difficult. However, the current outcomes of the policy are so far removed from the policy's original intent and so patently unfair that it should be reasonably easy to educate the public about the

need for reform through an open debate, To succeed, however, the government must make a credible case that it is both willing and able to continue to provide free public education to all those who need it.

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