



ACADEMIC VERSUS VOCATIONAL TRAINING: MAXIMIZING TANZANIA'S EDUCATIONAL SYSTEM

This brief analyzes the rates of return in Tanzania for two main educational trajectories, academic and vocational, as a way of determining policy priorities for developing the education sector. Generally our results show that academic training is preferred as it results in greater returns in the long run. But results also indicate that vocational training should not be completely dismissed. Rather, we recommend that Tanzanian policymakers:

- Evaluate the level of investment in both the academic and vocational trajectories based not only on costs, but also on earning potential as well as point of entry into each of these paths.
- Consider a more closely integrated educational system that supplements broad-based academic aptitudes with specialized vocational skills.

There has been much debate over the last forty years as to the merits of vocational training as opposed to academic training. One review of existing studies undertaken from the 1970s to the early 1990s found that twelve reported higher returns to vocational training over academic training, ten studies reported lower or insignificantly different returns for vocational education, and five studies concluded that there is no basis to compare the returns to vocational education with the returns from other forms of learning. Other studies have stressed that the returns to vocational education depend substantially on the general level of economic development, the availability of private sector jobs, and whether or not people are employed in a field related to their training.

This longstanding debate within academia has not necessarily led to clear answers for policymakers around the globe, with policies shifting with the dominant paradigm of the time. The Tanzanian experience has been little different, with the emphasis on vocational and academic training shifting dramatically between 1960 and today in three main phases. Today in Tanzania, academic training is generally preferred over vocational training, and our research confirms that this is a sensible course, as aca-

ademic training generally results in larger returns to employees in the long run.

RESEARCH METHODOLOGY

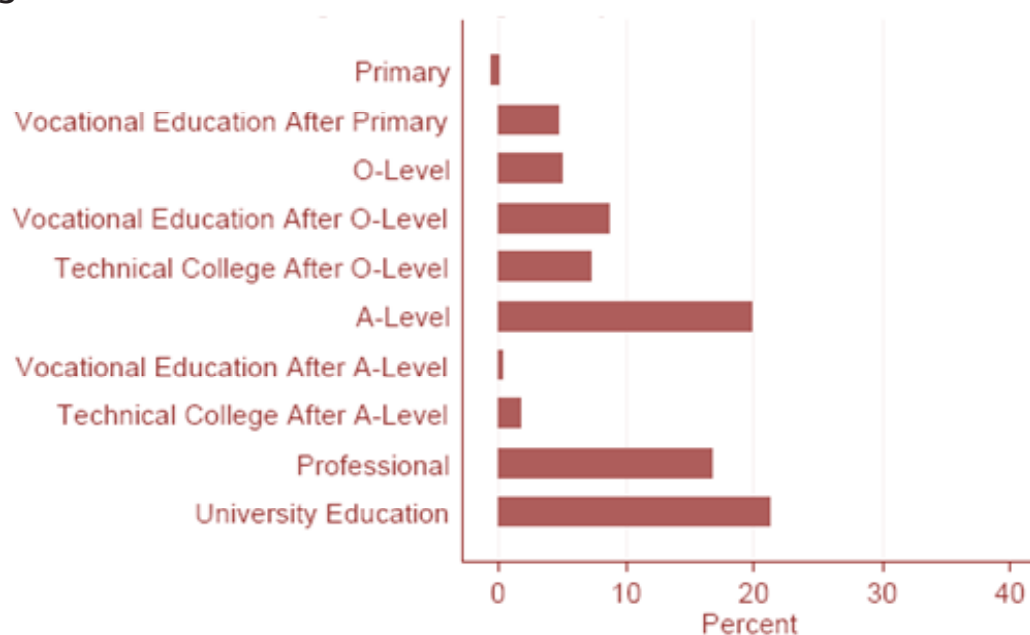
The research findings presented in this brief are based on a rigorous statistical evaluation of employee survey data collected in the fourth and fifth rounds of the Regional Program of Enterprise Development (RPED) survey. This data spans a four-year period from 1997-2000.

THE EFFECT OF EDUCATION LEVELS AND TRAJECTORIES ON POTENTIAL RATES OF RETURN

Our research focused on five major educational benchmarks (in order of average number of years in education): vocational training, O-level, A-level, technical college and higher education. And even a cursory analysis indicates that earnings from academic trajectories are higher. The average monthly income in 1994 US dollars of someone who had a vocational certification was only \$44, whereas someone with an A-level degree earned nearly twice as much at \$87. After controlling for other factors that may affect earnings, like the type of firm entered after education, the academic track clearly showed greater returns, especially after achieving an A-level degree (see Figure 1 on the next page).

Another important finding is that, in assessing the returns to vocational

Figure 1: Rates of return for different levels of education



and technical college, the level of entry does matter. In particular, for those who enter vocational school after primary schooling, returns are higher than for those that enter after O-level secondary education. This may have to do with current structural limitations to accessing higher education – often vocational training or technical college is seen as an alternative in cases where students can no longer progress in the academic track due to limited places, poor test scores and/or financial restrictions.

Returns from training cannot, however, be understood from a focus only on the education system. Rather, it is also important to consider the types of firms that graduates eventually enter and the effect this has on returns from their educational background. One important finding was that in Tanzania firm size played an important role. With the exception of university-level education, it was found that large firms (organizations with over 100 employees) increased returns for workers over small firms (organizations with fewer than 10 employees).

Firm size was also an important predictor for the rates of return for on-the-job training. Larger firms generally captured greater rates of return than small firms when investing in such training.

CONCLUSIONS AND POLICY IMPLICATIONS

These findings suggest several policy implications for Tanzanian policymakers:

- The level of investment in both the academic and vocational trajectories must be evaluated based not only on costs, but also on earning potential as well as point of entry into each of

these paths.

- A closer integration of broad-based academic aptitudes with specialized vocational skills may promote greater returns for workers and employers.

Although our research did not focus on the costs of investment in any of these educational streams, we have carefully considered the benefits of each stream. There are clearly greater returns in Tanzania for those with higher levels of academic education. This would imply that governmental policies should continue to invest in expanding opportunities for pursuing secondary and higher education in the country.

But attention also needs to be paid to the different points of entry into the vocational and academic education streams to maximize their returns. Entering vocational training after achieving O-level qualifications, for example, appears to offer the greatest returns for the vocational path. Government policies may want to encourage this path over proceeding to vocational training after primary education.

Rounding out academic skills with vocational ones is a possible way of promoting longer participation in the academic path and increasing returns for all parties. This would allow for a strong foundation for entry into the workforce. Establishing the right balance between the two should be a particular focus of policymakers considering the failure of some previous attempts to successfully integrate these two streams.

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