

## Breaking Gender Barriers: Vocational Training Vouchers and Kenyan Youth

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### Summary

Youth account for approximately 60 percent of the unemployed population in Sub-Saharan Africa. Seventy two percent of adolescents in the region live below the \$2/day poverty line. Vocational education has been identified as a promising avenue for young adults to acquire and develop marketable skills for employment. The Technical and Vocational Vouchers Program (TVVP) was launched in an attempt to fill key knowledge gaps in Kenya.

This program began in 2008 and randomly allotted vouchers to more than 1,000 students in Kenya. The goal was to assess the varying impacts of restricted vouchers that limit vocational education options to public institutions and unrestricted vouchers that allow students to attend either public or private institutions. The introduction of an information intervention was used to understand the impact of knowledge on real returns to vocational training; it also presented persuasive messaging to encourage female participation in traditionally male-dominated and increasingly profitable fields. Attendance began in early 2009. Approximately 78 percent of participants chose two-year courses and close to 20 percent decided on one-year courses. This analysis, based on data from mid-2010, presents suggestive evidence on TVVP's effects on students in two-year courses and the program's impact on students in one-year courses who had graduated.

The evidence suggests that i) by nudging women to acquire training in lucrative male dominated trades, the information intervention may boost the earnings potential for women in vocational training. Additionally, ii) among those employed at the time of survey, students with vocational training were more generously compensated, with females enjoying the greatest financial returns amongst voucher recipients. These preliminary results have

substantial implications related to the potential of increasing women's productive power.

These early results also demonstrate that: iii) take-up for programs like TVVP is relatively high, especially for those with unrestricted vouchers; iv) shorter distance to institutions leads to greater participation; v) urban and rural residence affects program preference, with urban residents preferring private institutions; and vi) retention rates are higher amongst students with less prior schooling and those with unrestricted vouchers.



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## **Methodology**

Implementation of the TVVP program began with the recruitment of approximately 2,160 out-of-school youths between the ages 18 and 30. A random half of these youth who applied to the TVVP were awarded a \$460 voucher for vocational training while the other half served as the control group. Of those who were awarded vouchers, half received unrestricted vouchers that could be used in either public or private institutions and the other half were given restricted vouchers that could only be used in public institutions.

Additionally, a randomly selected half of all treatment and control individuals were exposed to information about the actual returns to vocational education. The information component of the intervention was designed in response to pre-program survey evidence, which indicated that program participants were frequently mistaken about the returns to vocational education. Only a small fraction of respondents knew which trades had the highest average earnings in the region. Data from baseline individual course preferences demonstrated that males overwhelmingly preferred traditionally “male-dominated” courses like motor-vehicle mechanics and women almost exclusively chose traditionally “female-dominated” courses such as hairdressing. The intervention also highlighted increased economic returns in male-dominated trades and used “soft persuasive” methods, such as a video of female auto-mechanics, in an attempt to encourage females to pursue more traditionally male-dominated trades.

## **Results**

### ***The Information Intervention and the Demand for Vocational Training***

While the provision of better information did not have a significant impact on enrollment decisions, the intervention did encourage women to take up male-dominated trades. It also increased the likelihood of both male and female unrestricted voucher recipients enrolling in public institutions. These trends could be related to the greater availability of traditionally male-dominated and more profitable courses in industrial trade, construction and motor vehicle mechanics at public vocational institutions.

### ***Short-Run Labor Market Impacts***

Because 75 percent of the voucher winners were in school until December 2010, this mid-

2010 analysis does not allow for the evaluation of program impacts on the full sample. This is especially relevant for the impact of TVVP on labor market outcomes. Suggestive evidence of the program’s short-run impacts is indicative of larger returns to training for females who completed training compared to males. Males who completed short courses (one-year programs) generated higher profits from self-employment than females. Voucher winners were slightly less likely to expect to be self-employed in the future; this effect was driven by female voucher winners. Voucher winners were significantly less likely to be employed (seven percentage points), and they spent less time on the job search (30 hours with a pronounced difference for men), worked fewer hours (10 hours) and worked fewer hours in self-employment than those who did not receive vouchers. Because most voucher recipients were in school at the time of this analysis, these patterns mostly reflect the significant opportunity costs of schooling investments. Even with the lower labor supply and lower intensity of job search, the reported remuneration of voucher winners was slightly higher than those without vouchers – with the greatest differences for women. The 20 percent of participants who chose short courses demonstrated results similar to those aforementioned. However, early completers showed even larger financial returns and profits as a result of training for women.

### ***Program Take-Up***

Voucher take-up was high with 74 percent of winners enrolling in a vocational course for at least one term. There were no significant differences in take-up across gender, age group, years since last in school or previous vocational training. Voucher winners who reported being employed at the time of TVVP informational meetings were less likely to use their voucher; this was driven by those who received restricted vouchers. Take-up and retention rates were significantly higher among students with unrestricted vouchers compared to those with restricted ones. This could be due to the greater density of private institutions in the study area, these institutions’ varying approaches to training – i.e. job search support – or students’ perceptions of the labor market returns to private versus public training.

### ***Distance and the Demand for Vocational Education***

Distance to school is often cited as a major barrier to educational enrollment and attainment. Because individuals with unrestricted vouchers had access to both public and private schools, they were presented with options of schooling with shorter distances to travel. This could partially explain the difference in take-up rates between the two voucher types. Additionally, voucher winners closer to private schools were more likely to take up training compared to those who were farther away.

### ***Analysis of Institution and Core Courses***

Consistent with the preference reported prior to the intervention, 75 percent of voucher winners across gender, age and education level groups chose to attend a public institution. This could be because the voucher randomization required half of the treatment group to attend a public institution. For unrestricted voucher recipients, men were more likely to enroll in public institutions – this could be due to the institutions' specialization in male-dominated courses. There is little difference in this regard amongst women in the unrestricted group. Those living in a city with both restricted and unrestricted vouchers were more likely to choose a private institution compared to those living in rural areas.

### ***Course Retention***

Individuals with restricted vouchers were more likely to drop out compared to those with unrestricted ones. This could be related to better “matches” between students and institutions in the unrestricted cases. The provision of information had no impact on retention. Those with lower educational attainment were less



likely to dropout and completed more coursework than more educated individuals. Presumably, individuals with less education stand to gain more from vocational education than those with more education. Individuals with restricted vouchers completed 12 percentage points less of their course than those with unrestricted vouchers. This is probably because greater flexibility in institution and course choice led to higher quality individual-institution matches.

### ***Policy Implications***

This evaluation presents noteworthy insight into positive social and labor market returns of the TVVP. Specifically, this preliminary analysis demonstrates significant policy implications on both the supply and demand side of the vocational training sector in Kenya:

1. The provision of additional information and encouragement demonstrates the potential for such schemes to reduce the level of occupational segregation in the labor market by promoting improved gender balance in training.
2. While the TVVP concentrates on the demand side of vocational training returns, the supply-side impacts of the program demonstrate significant positive reforms that can prove beneficial for scale-up of such programs in similar contexts. The returns to training among the representative sample and the short course students are suggestive of superior returns to vocational training in the labor market – especially for women. Not only can programs like TVVP alter the gaps in training and demand for technical labor, they also have the potential to significantly change the social gender roles in and outside of households.
3. The TVVP exhibits the beneficial impacts of job placement services as well as distance and availability to program take-up. Vocational training can serve as an alternative path or a second chance program for promoting human capital formation. The distance and demand analysis results suggest that physical and financial access to private schools have strong and significant impacts on the enrollment decisions of individuals in the program. This could partly reflect increased course availability

and flexibility available to those with unrestricted vouchers, or a reflection of a better idiosyncratic match between students and private schools.

4. The analysis of institutions and core courses provides insight into improving the rural-urban match between institutions and students. Because of the data on preferences it provides, it makes available information to capitalize on in future information interventions. Indirectly incentivizing institutions to upgrade quality of education and improve matches can have limitless long-term benefits for youth in regions like Western Kenya. Placement assistance could have significant implications for successful employment outcomes; however the efficacy of such programs is currently unknown. In future research, we plan to examine whether students with access to these job placement programs have superior labor market outcomes.

5. The high value placed by lower educated participants demonstrates the power of the demand for such institutions and the dire need to remove capital and credit barriers.

This evaluation exhibits the success of a voucher program in boosting the demand for vocational training, suggesting that current prices of vocational education are prohibitive, perhaps due to credit constraints. The evidence also points to the importance of engaging the private sector in policy formulation, as those students who had access to private institutions with unrestricted vouchers had both increased demand for vocational training and reduced drop-out rates. Private vocational institutions may be superior in quality, more able to meet students' needs or may be closer and easier to reach. The data also suggests that information can change the education investment decisions of students, perhaps hinting that governments can employ national information campaigns to boost enrollment in vocational education.

Further research will rigorously examine the medium to long-term labor market returns to vocational education. Ultimately, the combined evidence of the factors affecting the demand for education and the medium to long-term returns to education will provide a comprehensive assessment of the potential of a vocational education voucher scheme to improve the livelihoods of youth in a less developed country context.

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