



Exploring the dropout rates and causes of dropout in upper-secondary technical and vocational education and training (TVET) schools in China



Hongmei Yi^a, Linxiu Zhang^{a,*}, Yezhou Yao^a, Aiqin Wang^b, Yue Ma^c, Yaojiang Shi^c, James Chu^d, Prashant Loyalka^{d,e}, Scott Rozelle^{c,d}

^a Center for Chinese Agricultural Policy, Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Sciences, China

^b Northwest Socioeconomic Development Research Center, Northwest University, Xi'an, China

^c Center for Experimental Economics in Education, Shaanxi Normal University, Xi'an, China

^d Freeman Spogli Institute for International Studies, Stanford University, Stanford, United States

^e School of Education Science, Henan University, China

ARTICLE INFO

Article history:

Received 15 May 2013

Received in revised form 13 March 2015

Accepted 27 April 2015

Keywords:

Technical and vocational education and training (TVET)

High school

Dropout

China

ABSTRACT

Policymakers in many developing countries regard upper-secondary technical and vocational education and training (TVET) as a key element in economic growth and poverty reduction. Unfortunately, there is evidence that upper-secondary TVET programs in developing countries experience high rates of dropout. The overall goal of this study is to examine the dropout rates and reasons for dropout among upper-secondary TVET students in China. To meet this goal, we have three specific objectives. First, we seek to produce high-quality estimates of dropout rates among students in upper-secondary TVET schools in one coastal and one inland province of China. Second, we seek to identify which students drop out from upper-secondary TVET. Third, we test whether financial constraints, math and computer achievement, and parental education and migration status correlate with TVET dropout. Drawing on data from a survey of 7414 upper-secondary TVET students in two provinces of China, we find dropout rates of 10.7% across both provinces and as high as 22% in poorer inland areas, suggesting major gaps and disparities in Chinese TVET dropout rates. Furthermore, we find that baseline academic performance and maternal education and migration status are strong correlates for student dropout.

© 2015 Elsevier Ltd. All rights reserved.

Policymakers in many developing countries regard upper-secondary technical and vocational education and training (TVET) as a key element in economic growth and poverty reduction.¹ For example, the Brazilian government recently launched the National Program of Access to Technical Education and Employment (Pronatec), which will invest more than 600 million US dollars in upper-secondary TVET and expand enrollment by 8 million

students before 2014 (National Congress, 2011). The Indonesian government aims to increase the share of TVET in upper-secondary education to 70% (from 30%) by 2015 as a means to reduce youth unemployment (Ministry of National Education, 2006). International development organizations, including the Asian Development Bank (ADB) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), have advocated for upper-secondary TVET as an effective means to promote economic growth and poverty reduction in developing countries (ADB, 2008; UNESCO, 2012a).

Education officials in China, like elsewhere in the world, have made it clear that upper-secondary TVET is supposed to play an important role in the nation's education strategy. In fact, China has one of the most ambitious upper-secondary TVET programs in the world today. During the early 2000s, enrollment increased from 5 million students (in 2000) to 7.3 million students (in 2011—National Bureau of Statistics, 2001, 2012). During this time

* Corresponding author at: Room 3822, No. Jia 11, Datun Road, Chaoyang, Beijing 100101, China. Tel.: +86 10 6488 9834; fax: +86 10 6485 6533.

E-mail address: lxzhang.ccap@igsnr.ac.cn (L. Zhang).

¹ Our definition of upper secondary TVET in our paper is identical to that used by OECD countries (Kuczera and Field, 2010). Secondary education consists of lower secondary education (or junior high school) and upper-secondary education (or high school). Upper-secondary education may be further split into general programs (or academic schools) and TVET programs (or upper-secondary TVET schools).

period, spending per student in upper-secondary TVET also increased dramatically. In 2000, government spending per upper-secondary TVET student was roughly 300 dollars (National Bureau of Statistics, 2001). In 2011, government spending per upper-secondary TVET student increased to more than 850 dollars (National Bureau of Statistics, 2012).

Despite the high profile of upper-secondary TVET in China (and elsewhere) over the past decade, policymakers and researchers have been concerned that upper-secondary TVET dropout rates remain high. In fact, similar to the situation in a number of other developing countries (e.g., Pakistan, India, Ethiopia, Kenya and Albania, see Janjua and Mohammad, 2008; ACE Europe, 2008; Jordan et al., 2009; UNESCO-UNEVOC, 2012), high dropout rates in upper-secondary TVET have begun to be reported (Wang, 2012; Gao, 2011). This is despite steady increases in financial aid and reductions in tuition rates, which reduce the cost of attending upper-secondary TVET (Fo and Xing, 2011).

Dropout is considered a serious problem for two reasons. First, dropout reduces the number of individuals who actually complete upper-secondary TVET. To the extent that the goal of economic growth and poverty reduction requires individuals to complete (and not just attend) upper-secondary TVET, dropout undermines the goals of policymakers. Indeed, retention is considered a key metric in evaluating upper-secondary TVET (UNESCO, 2012b). Second, the fact that families are withdrawing their children from upper-secondary TVET suggests deficiencies in TVET value-added. Granted, actual dropout choice behavior involves factors beyond cost-benefit calculations. However, it is likely that families enroll their children in upper-secondary TVET out of cost-benefit calculations (as the whole mission of upper-secondary TVET is to train a student for a specific skill and increase future earnings). Thus, if students and their guardians decide whether to stay in or leave upper-secondary TVET based on the costs and benefits of attending, dropout rates could reflect perceived lack of benefits from these programs. Indeed, several scholars are concerned that many of China's upper-secondary TVET schools are contributing little value-added to their students (Guo and Lamb, 2010; Kuczera and Field, 2010; Wang, 2012).

Just how high is the dropout rate? There are two studies, each with their own limitations, which have attempted to measure the dropout rate in upper-secondary TVET schools in China. First, using data reported by local county governments and schools, Wang (2012) finds that the dropout rate for the three years of upper-secondary TVET schooling in 2007 was 18.7% across the nation and 28.0% in western China. Second, based on a survey of one upper-secondary TVET school in Jiangsu province, Gao (2011) reports that the cumulative dropout rate is 15%. While these findings are important, the first study is limited by the fact that data reported by local county officials and schools has been shown to lead to downwardly biased estimates of dropout (Yi et al., 2012). This is because school and local government officials may be incentivized to overstate the numbers of their enrollments and graduates. The second study is limited by its lack of generalizability (as it was focused on dropout rates only at one school). As such, to the best of our knowledge, there are no accurate estimates of dropout rates in Chinese upper-secondary TVET to date.

More importantly, beyond knowing the rate of dropout, it is also important to study the correlates of dropout. An analysis of who is dropping out of upper-secondary TVET schools is essential in identifying high-risk students. Knowing why students drop out is a first step in designing interventions to curb dropout rates. Surprisingly, to our knowledge, no study has attempted to explore the potential determinants of dropout in the Chinese context. Although a few studies (such as Gao, 2010, 2011; Ye, 2002) offer qualitative assessments on why students drop out as well as policy suggestions for preventing dropout, these case studies may lack

external validity because they are based on single cases (e.g., only one or two schools). The studies also provide little guidance as to how these schools were sampled. Moreover, scholars relying on data reported by local officials and schools may be unable to perform analyses on the determinants of dropout, as they lack sufficiently detailed data on parental, student, teacher, and school background factors.

The overall goal of this study is to understand the dropout rate and reasons for dropout among upper-secondary TVET students. To meet the goal, we pursue three specific objectives. First, we seek to produce high-quality estimates of dropout rates among students in China's upper-secondary TVET schools. Second, we seek to identify which students drop out from upper-secondary TVET. Third, we explore the potential determinants of upper-secondary TVET dropout.

To achieve our objectives, we collected and analyzed panel data from a large and representative survey of upper-secondary TVET students and schools in one western and one eastern province of China. Our descriptive results indicate that dropout rates are especially high in western China compared to eastern China. Our multivariate results indicate that dropout is not primarily determined by financial constraints but is rather determined by the level of education and migration status of the parents of the students. Dropout is also shown to be negatively associated with student achievement. That is, our results indicate that students with higher achievement are less likely to drop out than students with lower achievement.

The remainder of the paper is structured as follows. Section 2 discusses our hypotheses for why students in upper-secondary TVET are dropping out. Section 3 describes our data and statistical methods. Section 4 presents our results. Section 5 concludes with discussion.

1. Hypotheses

Our first hypothesis is that students drop out because they are financially constrained: families are unable to shoulder the financial costs (whether direct or indirect) of sending their children to upper-secondary TVET in China. Although compulsory education (grades 1–9) in China was made free in 2008, upper-secondary education was not, and thus households are still responsible for paying all high school fees (Connelly and Zheng, 2003; Hannum, 2003; Liu et al., 2009). The cost of attending upper-secondary TVET, including tuition fees, room and board and textbooks, can reach as high as 4000 RMB per year (roughly 645 dollars—Kuczera and Field, 2010). To put this amount in context, in 2009, the rural per capita net income was 5153 RMB (roughly 831 dollars—China National Bureau of Statistics, 2010). That means, even if excluding living expenses, the cost of attending TVET is around 80% of the annual income of a student's family (Liu et al., 2009).

Although financial aid has been offered for upper-secondary TVET students in recent years (Kuczera and Field, 2010), not all students receive this support. China's TVET policies state that poor students should receive 1500 yuan (240 USD) in each of the first two years at school (Kuczera and Field, 2010). The policy also suggests that students under a poverty threshold also should receive full tuition waivers (Fo and Xing, 2011). The government

² While Yi et al. (2013) do not provide a full explanation for why targeting is so poor, one potential reason is that the system to allocate financial aid requires students to submit a substantial amount of paperwork. Like other financial aid programs, such a system sometimes misses poor students who are less knowledgeable about or have less support to fill out and submit required paperwork (Dynarski and Scott-Clayton, 2008; Li et al., 2013; Loyalka et al., 2013).

Download English Version:

<https://daneshyari.com/en/article/356048>

Download Persian Version:

<https://daneshyari.com/article/356048>

[Daneshyari.com](https://daneshyari.com)