

# Decision-Making under Information Asymmetry: How do Misinformation and Uncertainty Affect Tertiary Education Choices?

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# Decision-Making under Information Asymmetry: How do Misinformation and Uncertainty Affect Tertiary Education Choices?

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# Decision-Making under Information Asymmetry: How do Misinformation and Uncertainty Affect Tertiary Education Choices?

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## Abstract

Considering that tertiary education has become increasingly popular among young adults worldwide, this study analyses their choices between two different types of tertiary education. We focus on the unique case of Swiss vocational education and training (VET) graduates, who can choose between university education or professional education and training (PET) for tertiary education. However, such diversified education systems are difficult for young adults to understand, as it requires them to be fully informed about the different educational options. We thus analyse VET graduates' level of information about tertiary education in terms of their subjective assessment of their own knowledge as well as their objective knowledge about their eligibility for different educational types, and about graduate wages. We estimate the effect of these three variables on the likelihood of VET graduates choosing PET over university, conditional on a rich set of covariates. Our findings show that VET graduates' information levels differ according to the type of tertiary education, and that misinformation about tertiary education wage benefits and uncertainty about eligibility, especially in terms of university education, influence their educational choice-making. Hence, to ensure individually optimal choices, it is crucial that young adults are provided information about all relevant options and aspects of different tertiary education types.

# 1 Introduction

Tertiary education (TE) has become increasingly popular among young adults worldwide (Marginson, 2016). According to Becker and Zangger (2013) individuals across all socio-economic backgrounds remain in education over longer periods, resulting in higher societal education levels on average. At the same time, TE systems have become more differentiated to accommodate more prospective students, with many study programmes, varying in entry requirements and different post-graduation returns, for example in terms of salaries (Barone et al., 2016; Reimer & Jacob, 2011). Moreover, some Western European countries such as Austria, Germany, the Netherlands and Switzerland have different yet well-established types of education at the upper-secondary and tertiary levels, specifically university education and vocational and professional education and training (PET) (Arum et al., 2007).

This variety results in complex education systems that are difficult for prospective students to understand (Guri-Rosenblit et al., 2007). Evidence shows that the more types of TE exist, and the more individual study programmes exist within these types, the more difficult it is for young adults to be adequately informed about the education system (Forster & van de Werfhorst, 2020; Kretschmer, 2019).

Rational choice theories – which the literature frequently uses to explain educational choices – argue that the decision of whether to enrol in education, and in which educational programme, highly depends on the expected returns, the anticipated costs and the probability of successful completion (Breen & Goldthorpe, 1997). However, these assumptions depend on the individual's level of information about different aspects of the education system (Barone et al., 2016; Corcoran et al., 2018; Ehlert et al., 2017). Indeed, empirical evidence indicates that individuals do not have accurate information about education and that changes in information levels can affect educational choices (Barone et al., 2016; Ehlert et al., 2017; Finger et al., 2020; Forster & van de Werfhorst, 2020; Kerr et al., 2020; Peter & Zambre, 2017; Wiswall & Zafar, 2015). Some of these studies show that providing young adults sufficient information remarkably changes their choice-making (Barone et al., 2016; Ehlert et al., 2017; Peter & Zambre, 2017). Therefore, information provision clearly constitutes a cost-effective means of better allocating individuals within the education system.

This study analyses the TE choices of young adults who have completed an upper-secondary vocational education and training (VET) in Switzerland and how these choices depend on their level of information about the different TE options. Our theoretical framework builds on bounded rationality theories, which emphasise that individuals do not extensively engage in information search and consequently take decisions with incomplete or even inaccurate information (Kahneman, 2003). With education systems becoming more complex, we argue that young adults are increasingly making choices under uncertainty and misinformation, and hence choose the option they are more familiar with.

We use cross-sectional data that stems from an online survey conducted among young adults aged between 18 and 35 years with a completed upper-secondary VET programme in the German-speaking part of Switzerland. We investigate their level of information according to three measures: first, for our subjective measure, we take the respondents' subjective assessment of their overall knowledge of the Swiss education system, which we call 'subjective assessment of information level'. Second, for our first objective measure, we use respondents' knowledge of whether they are eligible for different individual TE programmes without having to fulfil additional requirements and call this variable 'uncertainty about eligibility for TE'. Third, for our second objective measure, we compare respondents' estimated benefits of different types of TE to their actual benefits. We call the variable that measures the discrepancy between estimated and true benefits 'misinformation about wage benefits of TE'.

Using a probit model, we estimate the effect of VET graduates' information level about the education system on the likelihood of choosing PET rather than university education. 'Subjective assessment of information level', 'uncertainty about eligibility for TE' and 'misinformation about wage benefits of TE' are our main explanatory variables, and we control for a rich set of covariates.

We contribute to the body of literature on the relation between information and educational choices in four ways. First, we focus on a country with a highly diversified education system that offers several pathways to TE. Switzerland constitutes an ideal case due to its long tradition of VET and the increasing popularity of TE for VET graduates over the last twenty years (SERI, 2020). Its TE choices entail both universities – including traditional academic universities and universities of applied sciences (UAS) with bachelor's and master's programmes – and numerous PET programmes in different fields. Hence, the Swiss education system offers a variety of TE choices for individuals with any kind of upper-secondary education. Thus far, research has shown little evidence on the effect of information about the education system on TE choices in Western countries with diversified education systems (Barone et al., 2016; Sander & Kriesi, 2021).

Second, to comprehensively measure young adults' level of information about the Swiss education system, this analysis combines frequently used objective measures – such as information about education options and returns to education – with a measure on individuals' subjective assessment of their own level of information, and examines the individual effect of these measures on TE choices. By including these three measures, we apply a more holistic approach than most of the literature on the role of information in educational choice-making.

Third, by differentiating between information about university education and information about PET, we disentangle the effect of the level of information on the choice between these two different types of TE. Fourth, we measure young adults' objective knowledge about the education system, whereas previous studies using that measure primarily analysed this type of knowledge from the parents' perspective (Forster & van de Werfhorst, 2020; Grodsky & Jones, 2007; Kretschmer, 2019).

We find that higher levels of misinformation on the benefits and uncertainty about eligibility significantly increase young adults' probability of choosing PET rather than university. However, variables disaggregated by type of TE show heterogeneous effects. Most importantly, misinformation and uncertainty about university positively affect the choice for PET, whereas the effect of misinformation and uncertainty about PET on TE choice is less clear. Our results indicate that young adults indeed take educational decisions under misinformation and uncertainty. To ensure more optimal choice making, there exists a need for more and better information about the possible options for different types of TE and their benefits.

The remainder of this study is organised as follows: first, we elaborate on the theoretical framework of educational choices, from which we derive our hypotheses, and give an overview of the relevant empirical literature. Second, to further explain our hypotheses, we elaborate on the Swiss TE system. Third, we describe the data and analytical strategy. Fourth, we present the findings of our analyses. Fifth, we conclude with a discussion of our results, limitations and policy implications.



## 2 Theoretical Foundation and Empirical Evidence

The sociological literature uses the rational choice paradigm as one of the main theoretical frameworks for explaining educational choices (Holm et al., 2019). Rational choice theory argues that individuals invest in education according to the expected returns, the anticipated costs and the probability of successful completion (Breen & Goldthorpe, 1997). However, these assumptions require that individuals be well informed about their options and the respective costs, benefits and probability of successful completion of each option (Stocké, 2012). Only then are individuals able to make optimal choices in terms of their educational careers (Oreopoulos & Petronijevic, 2013). However, empirical evidence shows that most individuals do not possess accurate information about their educational options or the benefits thereof (Abbiati & Barone, 2017; Barone et al., 2016; Kretschmer, 2019; Kristen et al., 2008).

In contrast, bounded rationality theories (Kahneman, 2003) argue that individuals do not have full information and do not extensively engage in information search, especially in complex contexts, and are more likely to rely on heuristics – simplified concepts of reality meant to facilitate and accelerate the decision-making process. By relying on heuristics, individuals save time by foregoing rigorous information search and relying on informal sources, such as friends and family. The shortcomings of relying on one's own social environment when making educational choices is that heuristics are often inaccurate, subjective and outdated (Abbiati & Barone, 2017). Consequently, the outcome of decisions based on heuristics may not be fully rational and therefore not optimal (Forster & van de Werfhorst, 2020). Therefore, to study the role of information in educational choice-making, we rely on analytic frameworks from bounded rationality theories.

Several studies have investigated the role of information about education in decision-making processes in different contexts. In line with bounded rationality theories, empirical evidence indicates that individuals do not usually possess perfect information when making educational choices, resulting in outcomes that can be less favourable to them (Barone et al., 2016; Briggs & Wilson, 2007; Grodsky & Jones, 2007). The literature has measured an individual's information level about an education system in different ways.

A first information level measure that some of the previous literature uses is the subjective assessment, i.e. how well individuals think that they are informed on the education system or certain aspects of it. Nonetheless, little empirical evidence is available on the relation between educational choice and subjective assessments of an individual's own knowledge. Abbiati and Barone (2017) study prospective university students' assessment of the profitability of investing in university education. While they are primarily interested in these students' knowledge about costs and returns to university education and their assessment of the probability of successful completion, they also ask the participants how confident they are in their estimations of the benefits and costs of studying at a university. Although they find that their participants have low confidence in their estimations, they do not use this measure as an explanatory variable in their regressions.

A second measure captures the level of information about monetary returns to graduates of a certain education (Breen & Goldthorpe, 1997; Daniel & Watermann, 2018; Hillmert & Jacob, 2003; Lergetporer et al., 2018). Multiple recent studies find that accurate information about the wages of TE graduates plays a role when individuals face the choice of post-compulsory education. Schweri and Hartog (2017), for example, find that health care apprentices are more likely to enrol in university if their TE wage

estimations are high. Kristen et al. (2008) use the degree of familiarity with the occupational returns associated with university education versus VET in Germany to show that lower familiarity translates into a less favourable perception of the VET system, making the choice for university education more likely.

Abbiati and Barone (2017) after controlling for abilities, show that individuals from a lower socio-economic background underestimate the returns to TE compared to the costs, and that this underestimation may dissuade them from enrolling in TE. Daniel and Watermann (2018) also find that if students from lower socio-economic backgrounds are uninformed about the benefits of TE, they do not enrol in it. Likewise, Forster and van de Werfhorst (2020) and Wolter and Zumbuehl (2018) view the level of information as an indirect effect of an individual's social origin, i.e. certain population groups have different informational resources. For example, children of highly educated parents usually have more of these resources than children of parents whose schooling stopped after upper secondary education.

To highlight the importance of information about post-TE wages, several studies have used information provision to students in treatment experiments. Barone et al. (2016), Bettinger et al. (2012), Ehlert et al. (2017) and Kerr et al. (2020) carried out experiments within which information about TE education costs and post-TE wages was provided to students who were about to enter TE. They observe that providing correct information about returns to education has an effect on students' educational choices. Bettinger et al. (2012) and Kerr et al. (2020) find that having correct information increases participation in TE. Barone et al. (2016) discover that the choice of the specific field of study changes when students receive accurate post-TE wage information. Moreover, these authors find that prospective TE students tend to systematically overestimate university graduate wages and hence become oblivious to alternative TE choices.

As the literature makes clear, accurately weighing the costs and benefits is crucial for prospective TE students, especially those with relatively few financial resources and rather high opportunity costs. Indeed, inaccurate beliefs about the benefits of education in general or of individual education programmes in particular may hinder upper-secondary graduates from further investing in education.

A third possibility to measure an individual's level of information about the education system is to examine their knowledge about different options within the education system and the eligibility criteria for each option. This knowledge is especially important given there exists a variety of paths to TE, as it is the case in countries with both general and vocational education at the upper-secondary and tertiary levels. Thus far, the literature on educational choice-marking has paid little attention to prospective students' knowledge of different options within an education system.

By comparing different generations of immigrants and immigrants from diverse cultural and language backgrounds, Wolter and Zumbuehl (2018) find that differences in the level of information about the education system may explain why children of immigrants progress more slowly into upper-secondary education than their native-born peers. Similarly, Grodsky and Jones (2007) ask parents of prospective students about their knowledge about the costs of attending college in the US, and find that parents with lower socioeconomic status are less likely to provide figures on costs than parents from higher socioeconomic status, and if they do, they tend to make larger errors. In their study with Dutch students, Forster and van de Werfhorst (2020) use parents' knowledge about different educational options to show that this knowledge matters when students transition to TE institutions. To explain differentials in educational outcomes in Germany, Kretschmer (2019) examines mothers' knowledge about the German education system, and finds that families' lower socioeconomic status substantially explains their relatively lower levels of knowledge regarding the German education system.

Both Forster and van de Werfhorst (2020) and Kretschmer (2019) use surveys including questions on parents' knowledge on the type of education or degree that qualifies students for different occupations or further education. As both the Netherlands and Germany have a tradition of both academic and vocational education, these two studies argue that navigating these various options can be a source of non-optimal choice-making in education. They do not, however, include information on the youth who choose an education and their information level.

As we are interested in providing a holistic view of information, we include all three measures in our analysis and therefore combine the two objective measures with the subjective assessment as an indicator for the overall level of information. We argue that educational choice-making is a result not only of cost-benefit considerations but also of individuals' information level according to i) their knowledge about different options within their respective education system, ii) their knowledge about the specific eligibility criteria that these options have and iii) their subjective assessment of their overall level of information. This argument is especially crucial for countries with more than one prominent way of accessing TE (Forster & van de Werfhorst, 2020; Kretschmer, 2019; Schindler & Reimer, 2011).

In line with Forster and van de Werfhorst (2020) we state that individuals use heuristics to facilitate their educational choice-making process. Hence, in complex education systems, individuals tend to choose the path that is more generally known. Lavecchia et al. (2016) argue that more information is helpful in educational choice-making, whereas more options make this process more difficult. Consequently, the more options individuals face, the likelier they will defer to whatever they are more familiar with, without engaging in extensive information gathering.

### 3 PET or University? The Swiss Tertiary Education System

Switzerland provides a unique setting for analysing the educational choices of young adults considering TE, as many other countries do not have a comparable TE system in terms of diversification (Sander & Kriesi, 2021). While the country's upper-secondary education system largely includes VET, it also offers diverse options for TE other than traditional academic universities. In 2020, around 62% of upper-secondary graduates had obtained a VET degree, while the remaining 38% graduated from general upper-secondary education, which prepares them for traditional academic universities (FSO, 2021c). While those who completed general upper-secondary education predominantly choose TE at traditional academic universities, VET upper-secondary graduates display more heterogeneous choice patterns (FSO, 2018b).

Since the 1990s, the Swiss government has created a number of post-secondary educational options aimed primarily at VET graduates (Becker & Zangger, 2013). For example, with the establishment of the universities of applied sciences (UASs) in the 1990s, university education has become a more prominent option for VET graduates. After upper-secondary VET and additional one to two years of schooling, which are completed with the obtainment of a federal vocational baccalaureate, they can directly transition to a bachelor's programme at a UAS. With more additional schooling, typically organised in a one-year course (called the "university aptitude test"), they may acquire an academic baccalaureate and are hence eligible to study at a traditional academic university. UASs, since adapting the Bologna reform by structuring their studies in bachelor's and master's degrees, have attracted

increasing numbers of students (CSRE, 2018). Indeed, since 2012, UASs have been enrolling higher numbers of students than traditional academic universities, most of which were established long before the UASs (FSO, 2021a).

Moreover, in addition to university education, VET graduates may also choose from a broad offering of PET programmes (Sander & Kriesi, 2021). PET, first, requires a certain number of years of work experience, depending on the level of the programme and the field of occupation. Second, PET programmes require only a VET diploma and are usually conducted as part-time studies, allowing the students to work while studying. PET thus opens up pathways to high-skill occupations with a larger scope of responsibilities. The European Qualifications Framework (EQF) ranks PET at ISCED-levels<sup>1</sup> 5/6-8 (SERI, 2015), i.e. identical to a traditional academic university or UAS education.

Even though the two types of TE offer attractive career options for VET graduates, there has been an increase in university attendance at the cost of PET programmes (CSRE, 2018). This trend is argued to result mainly from profound changes in the labour market and the demographics of the country. Muehleemann (2014) argues that the Swiss labour market has become more internationally oriented, while Bolli and Rageth (2016) show that among immigrants, who comprise more than a quarter of the Swiss population, VET at the upper-secondary does not have the same recognition value in the first years of their residence as general education.

Furthermore, PET includes roughly 850 programmes with different admission requirements (Sander & Kriesi, 2021) and hence PET programmes by far outnumber university programmes. For example, the eight cantonal UAS offer a substantially smaller number of possible study programmes with standardised eligibility criteria (CSRE, 2018). PET diplomas made up for 31% of all TE diplomas in 2019 (FSO, 2020). Moreover, about a third of a cohort of VET graduates completes a PET programme (Sander & Kriesi, 2021), while about a quarter completes a federal vocational baccalaureate with the aim to enter a university. However, despite enrolment in PET being more frequent among VET graduates (FSO, 2021b), enrolment numbers over the past two decades make evident that the UAS increasingly attracted students at the expense of PET (CSRE, 2018). While the ratio of PET diplomas to university diplomas was five to one in 2002, it declined to one and a half to one in 2016.

## 4 Hypotheses

Drawing on bounded rationality theories, we state that individuals do not extensively engage in information search before opting for a specific TE choice, but instead choose the option that is most prevalent and familiar to them. Switzerland is a country where vocational and professional education and training is more prevalent among upper-secondary VET graduates than general or academic education. First, VET graduates with professional experience can directly access PET without any further education, while they need to acquire a baccalaureate to enrol in a university. As PET is still more common among VET graduates, and don't require additional entry requirements in terms of

<sup>1</sup> The International Standard Classification of Education (ISCED) of the UNESCO classifies educational programmes into levels and makes education systems across the globe more comparable in terms of competences that graduates acquire on each level.

schooling, we argue that these programmes also better-known than general or academic education and therefore constitute the most intuitive choice for VET graduates when enrolling in TE.

Consequently, we argue that individuals who do not extensively engage in information search and therefore have lower levels of information on the different TE options defer to PET as their TE choice. Hence, our main hypothesis reads as follows:

**H1:** *Individuals with lower levels of information about the TE system and its different aspects are more likely to opt for PET than university education.*

Considering that we integrate all three measures used in the literature to comprehensively measure individuals' level of information on the TE system, we formulate the following three sub-hypotheses:

**H1a:** *Higher levels of the subjectively assessed level of information on TE negatively correlate with a choice for PET over university education.*

**H1b:** *Higher levels of uncertainty about eligibility for TE programmes positively correlate with a choice for PET over university education.*

**H1c:** *Higher levels of misinformation about the wage benefits of TE positively correlate with a choice for PET over university education.*

## 5 Data and Methods

### 5.1 Data

Our data stems from an online survey conducted in 2019 among VET graduates in the German speaking part of Switzerland. Thanks to a cooperation with a private company offering job-matching assistance for young professionals, we were able to send our survey to our target group, which are VET graduates. While 824 people started the survey, early terminations and missing values lead to a final estimation sample of 180 observations for this study.

The survey was restricted to VET graduates aged 18 to 35, meaning that participants outside of this age range as well as those who graduated from general upper-secondary education are excluded from the analysis. We perform this restriction because general education graduates show more homogenous patterns when transitioning to TE by almost exclusively opting for university education (CSRE, 2018), meaning that there is not enough variation to exploit.

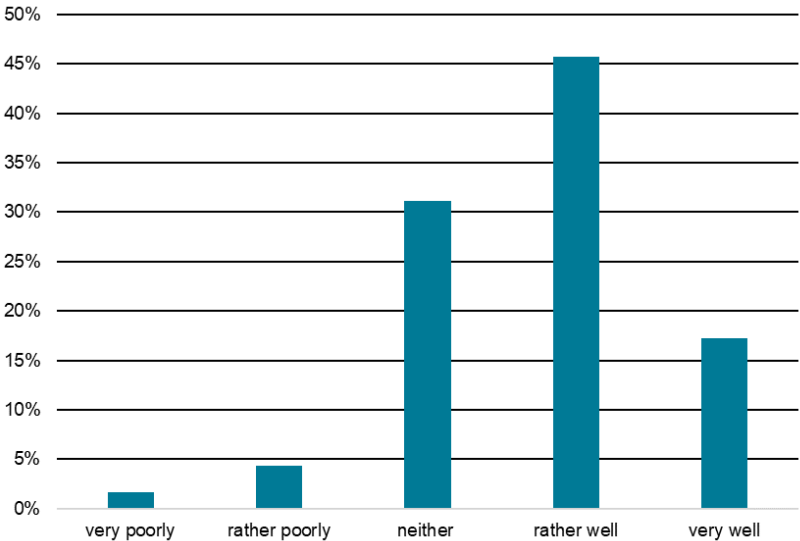
We use a binary dependent variable that captures if a VET graduate is currently in a PET programme or if he or she intends to start a PET programme within the next two years. We assign the zero value to those who are currently in a university programme or are planning to start a university programme<sup>2</sup>,

<sup>2</sup> Note that next to the UAS, we include traditional universities, federal institutes of technology and universities of teacher training in the zero-category. Albeit them not being frequently chosen by VET graduates, they were still listed as options in the survey. Only a small number of participants indicate to have opted for these types of education. Nevertheless, we think it is justified to include them in the analysis. When excluding those two types of general education programmes in our dependent variable,

including current and prospective baccalaureate students. Consequently, the binary variable ‘Tertiary education: PET’ differentiates between university attenders and PET attenders. Note that these observations are already filtered by whether or not our respondents are in or are planning to pursue TE.

Our estimations include three explanatory variables, capturing VET graduates’ information level on the education system with different measures. Our first information variable is VET graduates’ subjective assessment of how well they are informed about TE programmes in general. They were asked to give an answer on a scale from 1-5, where the value 1 stands for “very poorly informed”, and the value 5 stands for “very well informed”. This variable is labelled ‘subjective assessment of information level’. With an average value of 3.7, our study participants indicate that they are rather well informed. Figure 1 displays share of respondents for each answer option.

Figure 1: Share of respondents for ‘subjective assessment of information level’

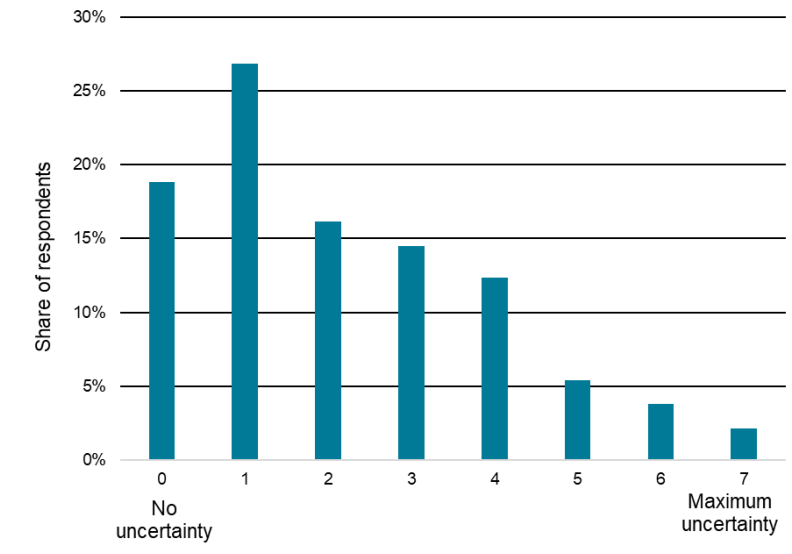


Notes: Figure 1 displays shares of respondents for the variable ‘subjective assessment of information level’. N=180.

Our second explanatory variable and first objective assessment is whether the participants are knowledgeable about their eligibility for different individual TE programmes. We asked them to indicate for seven different TE programmes whether they are eligible to start that programme at the time of the survey, without fulfilling any additional requirements. This question allowed the answers “yes”, “no” and “not sure”. Relying on how many times participants were uncertain about their eligibility, we generated the variable ‘uncertainty about eligibility for TE: overall’. By adding the number of “not sure”-answers per respondent, we create a score ranging from 0 to 7, where a value of 7 indicates maximum uncertainty about eligibility. To gain more detailed information, we differentiate between answers for PET programmes – resulting in the variable ‘uncertainty about eligibility: PET’ – and for university programmes, resulting in the variable ‘uncertainty about eligibility: university’. Figure 2 displays shares of respondents for each value on the score.

the results do not change qualitatively (except for our first explanatory variable ‘subjective assessment’, which has a larger effect size when excluding other university types). These results are available from the authors upon request.

Figure 2: Share of values on score about uncertainty about eligibility for tertiary education

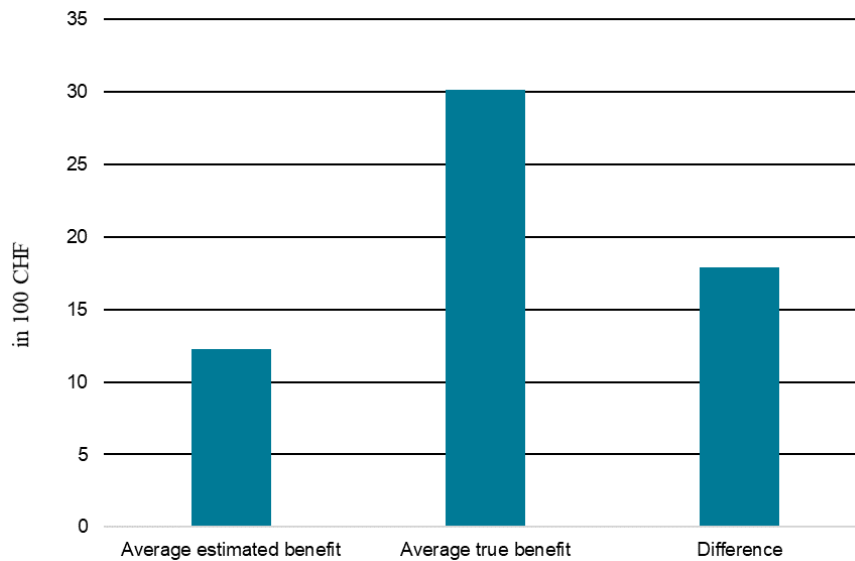


Notes: Figure 2 displays shares of respondents and their score on the variable 'uncertainty about eligibility for TE: overall'. N=180.

Our third explanatory variable and second objective assessment of VET graduates' information level is their information about wage benefits of TE. Analysing individuals' ability to correctly estimate graduate salaries is common in similar studies (Abbiati & Barone, 2017). The participants were asked to give an estimate of monthly wages of different types of graduates, precisely of VET graduates, PET graduates, graduates from universities of applied sciences and graduates from traditional universities. The latter three estimates were subtracted from the estimates they indicated for VET graduates to generate the 'estimated benefit of TE'. By generating the difference between our study participants' benefit estimations and the true benefits for each TE education, which stem from the biennially conducted Swiss Earnings Structure Survey (FSO, 2018a), we generate the variable 'misinformation on wage benefits of TE'. The larger the gap between the estimated benefit and the true benefit, the higher the level of misinformation. Additionally, it has to be noted that the differences have been computed in steps of CHF 100 for the coefficients to be meaningful. Figure 3 displays the average of true benefits of TE, the estimated benefits by our survey respondents and the difference.

While we take the values for the PET estimations as they are, we aggregate the average of the estimates for UAS and the estimates for traditional universities. We use both, a variable that captures the average over all three relevant answers, and two variables that capture the disparities only for PET graduate wages and only for university graduate wages. This procedure results in three variables, 'misinformation on wage benefits of TE: average', 'misinformation on wage benefits: PET' and 'misinformation on wage benefits: university'. Appendix VII describes the process of how we defined these variables in more detail.

Figure 3: Average estimated benefits and average true benefits of TE and difference in CHF 100



Notes: Figure 3 displays average estimated benefits of TE from our survey respondents assessed against true benefits of TE, and the difference in CHF 100. Numbers for true benefit stem from the Swiss Earnings Structure Survey (FSO, 2018a). N=180.

We stepwise include covariates that capture the following characteristics of the respondents: gender, age, education of parents (Boudon, 1974), eligibility for university studies (i.e., whether they have a federal vocational baccalaureate and/or an academic baccalaureate or not), intention to enrol in TE (i.e. whether they are already enrolled or just planning to enrol) (Saar et al., 2014), country of birth (Bolli & Rageth, 2016), employment status, family status, financial obstacles (Saar et al., 2014), friends/family members with university education (Brooks, 2003), friends/family members with PET education, residence region (Abbiati & Barone, 2017), type of completed VET programme (Kristen et al., 2008), the relevance of official information sources in the decision-making process, the relevance if informal information sources in the decision-making process<sup>3</sup> (Simões & Soares, 2010), duration of the decision making process, burden of the decision making process, and a list of reasons that speak for or against enrolling in TE.

Table 1 gives an overview on the summary statistics of the variables included in our analysis. The values for our explanatory variables make evident that there exists larger misinformation and uncertainty concerning university education than PET on the part of the respondents, further validating our hypotheses.

Table 1: Summary statistics of the variables included in the models

	N	Mean	Std. Dev.	Min	Max
<b>Dependent Variable</b>					
Tertiary education: PET	180	0.43	-	0	1
<b>Explanatory Variables</b>					
Subjective assessment of information level	180	3.74	0.86	1	5

<sup>3</sup> Official information sources encompass web pages of education providers or of educational counsellors, flyers or leaflets, magazines or newspapers, social media accounts of education providers, counselling appointments, fairs and information events of education providers. Informal information sources include family, friends, colleagues and employers. We asked our respondents to indicate how relevant each of these information sources were when getting informed about different educational options. We aggregated the individual items to two factors after a principal-component factor analysis.



Misinformation on wage benefits of TE: average	180	12.27	8.38	0.92	61.52
Misinformation on wage benefits: PET	180	10.37	5.84	0.4	28.4
Misinformation on wage benefits: university	180	13.22	11.07	0.58	85.58
Uncertainty about eligibility for TE: overall	180	2.16	1.81	0	7
Uncertainty about eligibility: PET	180	0.55	0.92	0	3
Uncertainty about eligibility: university	180	1.61	1.47	0	4
<b>Control Variables</b>					
Female	180	0.68	-	0	1
Age	180	22.66	3.78	18	35
Parents tertiary education	180	0.6	-	0	1
Eligible for university education	180	0.15	-	0	1
<b>Additional Control Variables I</b>					
Intention to enrol in tertiary education	180	0.56	-	0	1
Not enough financial resources	180	2.88	1.48	1	5
Born in Switzerland	180	0.91	-	0	1
Living with family	180	0.18	-	0	1
Employed	180	0.8	-	0	1
University education among friends/family	180	0.93	-	0	1
PET education among friends/family	180	0.67	-	0	1
<b>Additional Control Variables II</b>					
Residence region	180				
Espace Mittelland	180	0.22	-	0	1
North-Western Switzerland	180	0.17	-	0	1
Zurich	180	0.19	-	0	1
Eastern Switzerland	180	0.19	-	0	1
Type of completed VET programme	180		-		
Engineering	180	0.23	-	0	1
Sciences	180	0.04	-	0	1
Arts	180	0.05	-	0	1
Health and Welfare	180	0.17	-	0	1
<b>Additional Control Variables III</b>					
Relevance of official information sources	180	2.85	0.77	1	5
Relevance of informal information sources	180	3.06	0.85	1	5
Reasons for tertiary education					
Career	180	4.01	0.93	1	5
Career change	180	3.13	1	1	5
Recommendations	180	2.22	0.98	1	5
Interest	180	4.41	0.8	2	5
Expectation of employer	180	2.16	1.32	1	5
Decision Process	180				
Duration of decision	180	1.97	1.22	1	5
Difficulty of decision	180	2.71	1.26	1	5

Notes: Table 1 displays summary statistics of the variables included in the regression models.

## 5.2 Analytical Strategy

Due to the binary nature of the outcome variable, we use a probit regression to estimate the effect of our explanatory variables on VET graduates' information level on their TE choice, namely if they opt for PET over university education.

We control for a rich set of covariates that the literature shows to have an effect on TE choices. We hence estimate the following probit model with robust standard errors:

$$PET_i = \beta_0 + \beta_1 Subjective_i + \beta_2 Uncertainty_i + \beta_3 Misinformation_i + \gamma_1 X_i + \varepsilon_i, \quad (1)$$

where  $PET_i$  is a binary variable that indicates whether a VET graduate chooses PET. The variable  $Subjective_i$  captures the subjective assessment of the information level of an individual on a scale from 1 to 5.  $Uncertainty_i$  stands for the knowledgeableability of individuals about whether they are eligible for TE, and is measured by a score that ranges from 0 to 7.  $Misinformation_i$  indicates an individual's misinformation on wage benefits of TE (in steps of 100 CHF).  $X_i$  comprises a vector of control variables, as described in Table 1. To confirm the absence of multicollinearity of the explanatory variables, Appendix IV displays tables of corresponding tests. The results show that there is no issue of multicollinearity, hence allowing us to include all explanatory variables in the same model simultaneously.<sup>4</sup>

Drawing on our theoretical framework, we follow the argument that individuals comprise information about different types of TE through different channels. Consequently, we estimate a second model for which we disaggregate the two objective information variables into four variables, each capturing the information level about PET and university education separately, as described in the section 'Data'. The subsequent model hence includes  $UncertaintyPET_i$  and  $UncertaintyUni_i$  respectively to distinguish between information on eligibility to PET and eligibility to university education. Similarly, we distinguish between misinformation on wage benefits for PET and for university with the variables  $MisinformationPET_i$  and  $MisinformationUni_i$ . Note that such a differentiation is not possible for the variable 'subjective assessment of information level', which is based on a question on the overall education system and not on each individual TE programme.

As in equation (1), we include a control vector  $X_i$  and robust standard errors  $\varepsilon_i$ .

<sup>4</sup> Appendix VI displays results of a principal-component factor analysis to showcase that the explanatory variables load onto two factors. While our two objective measures load onto the first factor, our subjective measure loads onto the second factor. This analysis shows that our subjective and objective measures do indeed measure two different things. We nevertheless include all three variables separately, as different tests (in Appendix IV) prove that there is an absence of multicollinearity of the three explanatory variables.

$$PET_i = \beta_0 + \beta_1 Subjective_i + \beta_2 UncertaintyPET_i + \beta_3 UncertaintyUni_i + \beta_4 MisinformationPET_i + \beta_5 MisinformationUni_i + \gamma_1 X_i + \varepsilon_i \quad (2)$$

In addition, we need to consider that VET graduates pursuing TE are a selected group in terms of ability (Willis & Rosen, 1979). While we do not have any data on ability, we have information on motivation of the study participants and use this information to test whether in our sample VET graduates who choose TE differ from VET students who do not choose TE in terms of motivation. To further proxy an individual's ability, we include the parental educational background as a control variable, to assess primary effects of social origins that determine ability to a great part (Schindler & Reimer, 2010). We further investigate the existence of a second selection mechanism, i.e. whether there is a difference in the choice between the two TE types in terms of availability of information on TE. We present the results of these tests in a later chapter with robustness tests.

## 6 Results

### 6.1 Effect of the Information Level on TE Choice

Table 2 displays the results of probit estimations with average marginal effects and robust standard errors in parentheses. The results illustrate the effect of our explanatory variables on the choice for PET, throughout four different models, while we stepwise include more control variables. Due to the restricted sample size, M1 only includes the participants' gender, age, parents' educational background, whether they are eligible for university education as controls. M2 further accounts for the fact that not all VET graduates are already enrolled in TE (some only plan to enrol in TE), their monetary restrictions, country of birth, living situation, employment status and friends' education ('additional control variables I'). M3 further includes regions of residence and type of completed VET programme ('additional control variables II'). M4 is our main model and additionally includes the relevance of official and informal information sources, a list of items concerning reasons for and against TE, the duration of the choice making process, and the burden of the decision-making process ('additional control variables III').

Table 2: Baseline estimations with aggregated explanatory variables

TERTIARY EDUCATION: PET	M1	M2	M3	M4
<b>Subjective assessment of information level</b>	0.064 (0.040)	0.056 (0.040)	0.079** (0.040)	0.036 (0.038)
<b>Uncertainty about eligibility: overall</b>	0.039** (0.019)	0.033* (0.018)	0.029 (0.018)	0.034** (0.017)
<b>Misinformation on wage benefits: average</b>	0.007* (0.004)	0.008** (0.004)	0.012*** (0.004)	0.012*** (0.004)
<b>Female</b>	0.014 (0.073)	0.080 (0.074)	0.133 (0.093)	0.190** (0.090)
<b>Age</b>	0.026*** (0.009)	0.014 (0.011)	0.015 (0.010)	0.009 (0.010)
<b>Parents tertiary education</b>	-0.229*** (0.061)	-0.206*** (0.062)	-0.229*** (0.057)	-0.231*** (0.055)

<b>Eligible for university education</b>	-0.297*** (0.100)	-0.235** (0.099)	-0.169* (0.099)	-0.143 (0.094)
<b>Additional control variables I</b>	no	yes	yes	yes
<b>Additional control variables II</b>	no	no	yes	yes
<b>Additional control variables III</b>	no	no	no	yes
<b>N</b>	180	180	180	180
<b>Pseudo R<sup>2</sup></b>	0.15	0.21	0.26	0.36
<b>Log-Likelihood</b>	-104.01	-97.30	-90.70	-79.06

Notes: Table 2 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively. Additional control variables I include intention to enrol, monetary restrictions, born in Switzerland, living with family, employed, friends with university and friends with PET. Additional control variables II include control variables I, region in Switzerland and type of apprenticeship. Additional control variables III include control variables II and relevance of official information sources and relevance of informal information sources, duration and burden of decision process, and a list of reasons for or against enrolling in TE. Table 4 in Appendix I reports the full results of these baselines estimations.

Our first explanatory variable, 'subjective assessment of information level', positively affects the choice for PET over university education. However, this effect is only statistically significant in M3. In addition, when including a list of items concerning reasons to take up TE, its effect declines remarkably. The main driver of this decline in the effect size of the coefficient is a variable that captures the reason 'interest in TE programme', which itself is highly positively significant in its effect on the choice for PET. However, as the effect is positive in all four models, i.e. an increase in the subjectively assessed level of information raises the likelihood of choosing PET, we find no evidence to support H1a.

Our second explanatory variable, 'uncertainty about eligibility for TE: overall', also positively affects the choice for PET over university, indicating that VET graduates with higher uncertainty are more likely to choose PET. The effect is significant, yet relatively small, with an increase in the probability of choosing PET of 3-4 percentage points (depending on the model) with one additional point of uncertainty. As the effect is positive in all four models, we find evidence to support H1b that higher uncertainty about eligibility increases the probability of choosing PET.

The third explanatory variable, 'misinformation on wage benefits of TE' has a significant positive effect in all four models. Thus, the less informed VET graduates are about the wage benefits of TE, the more likely they are to choose PET over university education. Moreover, this effect increases with the inclusion of additional control variables. In M4, misestimating the wage benefits by CHF 100 increases the probability of choosing PET over university education by 1.2 percentage points. We therefore also find evidence to support hypothesis H1c that higher misinformation on the wages benefits of TE increases the probability of choosing PET education.

As VET graduates' level of information on education can differ depending on the type of TE, we additionally differentiate our objective explanatory variables in terms of information about university and information about PET. Hence, we replace the two aggregated objective measures with four disaggregated measures, capturing uncertainty and misinformation on PET, or university, respectively. Additionally, we use Wald tests to assess whether the coefficients for uncertainty and misinformation on PET significantly differ from the coefficients of the variables referring to university education. Table 3 displays the results of our estimations with disaggregated explanatory variables and the effect heterogeneity.

Table 3: Heterogeneous effect estimations with disaggregated explanatory variables

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
<b>Subjective assessment of information level</b>	0.065*	0.057	0.088**	0.053
	(0.039)	(0.039)	(0.039)	(0.037)
<b>Uncertainty about eligibility: university</b>	0.091***	0.083***	0.081***	0.083***
	(0.021)	(0.021)	(0.020)	(0.020)
<b>Uncertainty about eligibility: PET</b>	-0.069**	-0.059*	-0.067**	-0.056*
	(0.035)	(0.033)	(0.034)	(0.030)
Difference uncertainty PET vs. university	0.000***	0.000***	0.000***	0.000***
<b>Misinformation on wage benefits: university</b>	0.009***	0.010***	0.012***	0.012***
	(0.003)	(0.003)	(0.003)	(0.004)
<b>Misinformation on wage benefits: PET</b>	-0.012*	-0.011*	-0.009	-0.011*
	(0.006)	(0.006)	(0.006)	(0.006)
Difference misinformation PET vs. university	0.010**	0.009***	0.007***	0.005***
<b>Female</b>	0.074	0.122*	0.179**	0.254***
	(0.071)	(0.070)	(0.087)	(0.087)
<b>Age</b>	0.025***	0.014	0.016	0.012
	(0.009)	(0.010)	(0.010)	(0.010)
<b>Parents tertiary education</b>	-0.231***	-0.210***	-0.231***	-0.238***
	(0.060)	(0.061)	(0.056)	(0.052)
<b>Eligible for university</b>	-0.229**	-0.174*	-0.103	-0.070
	(0.097)	(0.095)	(0.093)	(0.094)
<b>Additional control variables I</b>	no	yes	yes	yes
<b>Additional control variables II</b>	no	no	yes	yes
<b>Additional control variables III</b>	no	no	no	yes
<b>N</b>	180	180	180	180
<b>Pseudo R<sup>2</sup></b>	0.21	0.26	0.32	0.41
<b>Log-Likelihood</b>	-96.86	-91.32	-84.03	-72.34

Notes: Table 3 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively. 'Difference misinformation' and 'Difference uncertainty' report the p-values for the Wald-test of equality of coefficients for university and PET. Additional control variables I include intention to enrol, monetary restrictions, born in Switzerland, living with family, employed, friends with university and friends with PET. Additional control variables II include control variables I, region in Switzerland and type of apprenticeship. Additional control variables III include control variables II and relevance of official information sources and relevance of informal information sources, duration and burden of decision process, and a list of reasons for or against enrolling in TE. Table 4 in Appendix I reports the full results of these baselines estimations. Table 5 in Appendix I reports the full results of these heterogeneous effect estimations with disaggregated explanatory variables.

Overall, we see that both uncertainty about eligibility and misinformation on wage benefits of TE have a different effect on TE choices depending on whether the level of information refers to university education or to PET. For the 'uncertainty about eligibility for TE', a higher level of uncertainty about PET reduces the probability of choosing PET education, while a higher level of uncertainty about university increases this probability. Interestingly, uncertainty about university eligibility has a stronger and more consistent effect over all models than uncertainty about PET eligibility. The Wald tests show that in all four models, the difference between the two coefficients is significant at the 1 per cent level.

Regarding misinformation on wage benefits, the results show similar patterns. While higher misinformation on wage benefits of university enhances the probability of choosing PET, higher misinformation on wage benefits of PET reduces that probability. The effect of misinformation on wage benefits of university is highly significant and largely independent of the inclusion of further control

variables, whereas the effects of misinformation on wage benefits of PET differs in effects and significance when including additional control variables. Again, the two coefficients significantly differ in all four models, as evidenced by the Wald tests.

These results show that a lack of information about eligibility for university and the wage benefits of university education make the choice for PET more likely. Moreover, young adults with a high uncertainty about PET eligibility and misinformation on wage benefits of PET are less likely to opt for PET, although these effects are not stable over the different models.

## 6.2 Robustness Tests

To verify that our findings for the effect of our explanatory variables are generalisable, we need to inspect whether VET graduates in our sample who choose to enrol in TE are a selected group in terms of motivation. To address the issue of possible sample selection, we additionally carry out a Heckman selection probit regression (Li et al., 2000). As an exclusion restriction, we use the variable “no motivation for further education”. We argue that this variable has no effect on the choice for or against PET, while it does have a significant effect on the choice for TE. We empirically confirm this assumption (see Table 10 in Appendix III). Our findings show that the computed inverse mills ratio (included as a covariate to correct for selection bias) from the selection equation for models with aggregated as well as disaggregated explanatory variables is insignificant in both our outcome equations. We also observe that the Heckman selection probit regressions qualitatively yield the same results as the presented probit regressions, hence, we consider the probit results as our main results.

We further carry out a second Heckman selection probit regression, where we use the variable “no adequate information on TE found” to investigate whether there is a difference in accessibility of information between the two TE types. This instrument is again significant in our selection equations, whereas the computed inverse mills ratios are insignificant in our outcome regressions. This result indicates that there is no selection into the different types of TE programmes based on availability of information. Moreover, the results do not change qualitatively compared to the presented probit results (see Table 11 in Appendix III).

Additionally, we carried out several tests to assess the robustness of our specification. For one, we exclude those individuals who are merely pursuing or planning to pursue a baccalaureate of any given type from our dependent variable. While the main purpose of baccalaureates is to study at a university later, not all individuals who acquire them do eventually enrol in TE, while some might even choose PET, despite PET not requiring baccalaureates for enrolment. The results of these robustness tests are displayed in Table 8 and Table 9 in Appendix II, and they show that the results generally do not change qualitatively when excluding this sub-sample. One exception is the variable ‘uncertainty about eligibility: PET’, which has a positive effect on the choice for PET in these estimations. However, we need to consider that by excluding (prospective) baccalaureate students, the overall sample reduces drastically.

Theories in sociology of education argue that parents’ education is a strong influencing factor on an individual’s educational choices and success (Boudon, 1974). Not only does this factor act through an individual’s ability but also through secondary effects, such as information on different educational possibilities. In accordance with Forster and van de Werfhorst (2020), we additionally test whether parents’ education has a mediating effect on the explanatory variables and their effect on the choice for or against PET. We first test whether there is a relationship between whether at least one parent has a tertiary education and each of our explanatory variables on the information level separately using bivariate OLS. In these regressions, we observe no significant relationship between these variables, as Table 16 in Appendix V shows.

Nevertheless, we additionally compute KHB models for non-linear estimations to decompose possible mediation effects, and present their results in the Appendix V. These estimations confirm that there is no statistically significant relationship between parents' tertiary education and the explanatory variables, i.e., there is no indication of a mediation effect of parents' tertiary education on the effect of the explanatory variables on choosing PET over university. Parents' tertiary education does, however, reduce the propensity of choosing PET, as shown in both our main models and the KHB models. Interestingly, differentiating between parents with PET and parents with university education, Table 6 and Table 7 in the Appendix II show that parents with PET have a significantly negative effect on the choice for PE, compared to parents with university education, throughout all models.

## 7 Discussion and Conclusion

Since global trends such as digital transformation and internationalisation affect the skills demanded in the labour market, TE for VET graduates becomes more and more pertinent. This study looks at the under researched case of an education system where there is more than one viable option for TE. Diversified education systems, such as the Swiss TE system, offer a variety of TE options, but also make it more difficult to navigate these options. Thus, young adults choosing TE are expected to take their decisions often under misinformation and uncertainty.

Our results indicate that choices between types of TE are affected by misinformation and uncertainty. Despite our study participants indicating that they are rather well informed about the different TE options, they show systematically biased misinformation or uncertainty about relevant aspects of TE. We find that higher levels of misinformation on the benefits and uncertainty about eligibility significantly increase young adults' probability of choosing PET instead of university education. However, variables disaggregated by type of TE show heterogeneous effects. Importantly, misinformation about PET wage benefits dissuades young adults from pursuing PET, but misinformation about university wage benefits and uncertainty about university eligibility is positively associated with choosing a PET. Our study provides evidence indicating that individuals take relevant decisions with incomplete or inaccurate information, and hence supports bounded rationality theories over rational choice models.

The findings indicate that young people in Switzerland should be better informed about both types of TE to make optimally informed educational choices. Switzerland has elaborated mechanisms to ensure permeability, such that graduates of any type can change their educational path. However, to ensure individually optimal choices, it is crucial that prospective TE students are subject to targeted provision of information about all relevant options and aspects of different TE types and programmes.

This study faces different limitations. While this dataset provides us with different measures of an individual's information level regarding the Swiss education system combined with a rich set of control variables, it is only cross-sectional. Therefore, we are not able to gauge causal effects due to unobserved heterogeneity. One aspect thereof is ability (measured in school grades), which is a main driver of educational choices, but is lacking in our data set. However, we restrict our sample to VET graduates, who are in TE or are planning to pursue TE, meaning that there should not be large variation in ability within this selected group.

Since we apply our analysis on survey data only, it does not allow us to draw conclusions on a possible causal effect of the provision of information for young adults when making educational choices, mainly

due to the issue of omitted variable bias. Furthermore, we face issues of non-response-bias, which may be reflected in the small number of observations.

Next to cost- and benefit considerations, rational action theories also rely on the probability of success when explaining educational decisions. This survey does not include any information that proxies the probability of successfully completing an education. Furthermore, while there is data on the highest completed education of both parents as a proxy for socio-economic status, there is no information on neither the income nor the current occupation of the parents. However, we control for whether the survey participants indicate to not have enough financial resources for TE as being a possible obstacle.

The respondents were only eligible to complete the survey if they had completed VET on upper secondary level, limiting the external validity of this analysis. This survey hence does not include any information on young adults who graduate from general upper-secondary education (especially high school) and their choices for TE. Nevertheless, with the focus of this study being the choice between university and PET, it is more likely that this choice is one that predominantly concerns VET graduates, as PET is often not an alternative for graduates of general upper-secondary education.

Concerning our explanatory variables, we face issues of reverse causality. It is unclear whether individuals are well informed because they have already made their educational choice or if it should be interpreted the other way around. However, our descriptive analyses show that on average, our study participants are not well-informed, meaning that there was no extensive information gathering taking place beforehand. It is crucial to mention that the effects of uncertainty about eligibility are possibly endogenous in our models. Unlike wage benefits, this type of information is more specific and probably mainly known to those who already engaged in information search about this matter. However, since the effects for uncertainty about eligibility to PET are not significant over all models, this concern might only be true for uncertainty about eligibility to university education. The Swiss PET system might be in general very complex with its numerous programmes and requirements, making it relatively more difficult to be well-informed. We additionally measure the concept of uncertainty only specifically in relation to eligibility criteria, but do not directly measure an individual's confidence as a personality trait.

Our unique analysis compares two viable alternatives for TE within a diversified and well-performing education system. By comprehensively measuring different aspects of young people's level of information on the education system, this study provides evidence that young adults who are planning to enrol in TE are not adequately informed about their options, and that they are generally better informed about PET than university education. While we are not able to explain choices for PET entirely with the available data, we nevertheless show that uncertainty about eligibility and misinformation on wage benefits of TE affect young peoples' choices. Hence, to ensure optimal allocation of individuals within the TE system, policy makers should address a possible need of systematic provision of information to young adults.



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# Appendix I: Full Results Tables of Baseline and Heterogeneous Effects Estimations

Table 4: Baseline estimations with aggregated explanatory variables – full results table

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Subjective assessment of information level	0.064 (0.040)	0.056 (0.040)	0.079** (0.040)	0.036 (0.038)
Uncertainty about eligibility	0.039** (0.019)	0.033* (0.018)	0.029 (0.018)	0.034** (0.017)
Misinformation on wage benefits	0.007* (0.004)	0.008** (0.004)	0.012*** (0.004)	0.012*** (0.004)
<b>Control variables</b>				
Female	0.014 (0.073)	0.080 (0.074)	0.133 (0.093)	0.190** (0.090)
Age	0.026*** (0.009)	0.014 (0.011)	0.015 (0.010)	0.009 (0.010)
Parents' tertiary education	-0.229*** (0.061)	-0.206*** (0.062)	-0.229*** (0.057)	-0.231*** (0.055)
Eligibility for university education	-0.297*** (0.100)	-0.235** (0.099)	-0.169* (0.099)	-0.143 (0.094)
<b>Additional control variables I</b>				
Intention to enrol in TE		0.087 (0.068)	0.144** (0.067)	0.108 (0.067)
Not enough financial resources		-0.024 (0.022)	-0.041* (0.021)	-0.017 (0.023)
Born in Switzerland		-0.012 (0.126)	0.003 (0.118)	-0.023 (0.097)
Living with family		0.203** (0.093)	0.184* (0.098)	0.150 (0.096)
Employed		0.133 (0.089)	0.178** (0.090)	0.119 (0.096)
University education among friends/family		-0.242* (0.127)	-0.313** (0.127)	-0.339*** (0.121)
PET among friends/family		0.079 (0.076)	0.107 (0.072)	0.113* (0.067)
<b>Additional control variables II</b>				
<b>Region of residence</b>				
Espace Mittelland			-0.082 (0.097)	-0.105 (0.090)
North-Western Switzerland			-0.137 (0.099)	-0.131 (0.088)
Zurich			-0.100 (0.105)	-0.131 (0.105)
Eastern Switzerland			0.066 (0.104)	-0.011 (0.104)
<b>Type of completed VET programme</b>				
VET: Engineering			0.184* (0.098)	0.220** (0.091)
VET: Sciences			0.268 (0.165)	0.327** (0.148)
VET: Arts			0.089 (0.143)	0.153 (0.116)
VET: Health and Welfare			0.181** (0.089)	0.248*** (0.082)
<b>Additional control variables III</b>				
Relevance of official information sources				0.001 (0.044)
Relevance of informal information sources				0.024 (0.041)
<b>Reasons for TE</b>				
Career				0.025 (0.036)

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Career change				-0.102*** (0.035)
Recommendations				-0.021 (0.045)
Interest				0.099** (0.040)
Expectation of employer				0.056* (0.029)
Decision process				
Duration of decision				-0.048* (0.027)
Difficulty of decision				-0.010 (0.027)

N	180	180	180	180
Pseudo R2	0.15	0.21	0.26	0.36
Log-likelihood	-104.01	-97.30	-90.70	-79.06

Notes: Table 4 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively.

Table 5: Heterogeneous effect estimations with disaggregated explanatory variables – full results table

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Subjective assessment of information level	0.065* (0.039)	0.057 (0.039)	0.088** (0.039)	0.053 (0.037)
Uncertainty about eligibility: university	0.091*** (0.021)	0.083*** (0.021)	0.081*** (0.020)	0.083*** (0.020)
Uncertainty about eligibility: PET	-0.069** (0.035)	-0.059* (0.033)	-0.067** (0.034)	-0.056* (0.030)
Difference uncertainty: PET vs. university	0.000***	0.000***	0.000***	0.000***
Misinformation on wage benefits: university	0.009*** (0.003)	0.010*** (0.003)	0.012*** (0.003)	0.012*** (0.004)
Misinformation on wage benefits: PET	-0.012* (0.006)	-0.011* (0.006)	-0.009 (0.006)	-0.011* (0.006)
Difference misinformation: PET vs. university	0.010**	0.009***	0.007***	0.005***
<b>Control variables</b>				
Female	0.074 (0.071)	0.122* (0.070)	0.179** (0.087)	0.254*** (0.087)
Age	0.025*** (0.009)	0.014 (0.010)	0.016 (0.010)	0.012 (0.010)
Parents' tertiary education	-0.231*** (0.060)	-0.210*** (0.061)	-0.231*** (0.056)	-0.238*** (0.052)
Eligibility for university education	-0.229** (0.097)	-0.174* (0.095)	-0.103 (0.093)	-0.070 (0.094)
<b>Additional control variables I</b>				
Intention to enrol in TE		0.074 (0.064)	0.131** (0.061)	0.105* (0.062)
Not enough financial resources		-0.018 (0.021)	-0.036* (0.020)	-0.016 (0.021)
Born in Switzerland		-0.046 (0.120)	-0.019 (0.112)	-0.035 (0.091)
Living with family		0.200** (0.092)	0.180* (0.094)	0.156 (0.095)
Employed		0.092 (0.085)	0.135 (0.084)	0.060 (0.086)
University education among friends/family		-0.220* (0.120)	-0.306*** (0.118)	-0.348*** (0.117)
PET among friends/family		0.057 (0.073)	0.083 (0.068)	0.093 (0.062)
<b>Additional control variables II</b>				
Region of residence				
Espace Mittelland			-0.069	-0.086

TERTIARY EDUCATION: PET	M1	M2	M3	M4
			(0.091)	(0.082)
North-Western Switzerland			-0.094	-0.067
			(0.099)	(0.092)
Zurich			-0.057	-0.062
			(0.101)	(0.098)
Eastern Switzerland			0.100	0.026
			(0.102)	(0.103)
Type of VET programme				
VET: Engineering			0.194**	0.249***
			(0.093)	(0.089)
VET: Sciences			0.335**	0.385***
			(0.161)	(0.140)
VET: Arts			0.082	0.188
			(0.160)	(0.118)
VET: Health and Welfare			0.175*	0.240***
			(0.089)	(0.081)
Additional control variables III				
Relevance of official information sources				0.011
				(0.041)
Relevance of informal information sources				0.037
				(0.043)
Reasons for TE				
Career				0.036
				(0.033)
Career change				-0.091***
				(0.034)
Recommendations				-0.006
				(0.044)
Interest				0.078**
				(0.037)
Expectation of employer				0.048*
				(0.029)
Decision process				
Duration of decision				-0.051**
				(0.026)
Difficulty of decision				-0.011
				(0.027)
N	180	180	180	180
Pseudo R2	0.21	0.26	0.32	0.41
Log-likelihood	-96.86	-91.32	-84.03	-72.34

Notes: Table 5 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively. 'Difference misinformation' and 'Difference uncertainty' report the p-values for the Wald-test of equality of coefficients for university and PET.

# Appendix II: Robustness Tests of Baseline and Heterogeneous Effects Estimations

Table 6: Baseline estimations with parents' education differentiated into PET and university – full results table

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Subjective assessment of information level	0.057 (0.039)	0.056 (0.039)	0.077* (0.040)	0.037 (0.038)
Uncertainty about eligibility	0.042** (0.020)	0.035* (0.019)	0.032* (0.019)	0.040** (0.017)
Misinformation on wage benefits	0.007* (0.004)	0.009** (0.004)	0.012*** (0.004)	0.012*** (0.004)
<b>Control variables</b>				
Parents TE: PET	-0.181*** (0.067)	-0.174*** (0.066)	-0.144** (0.066)	-0.156** (0.064)
Parents TE: University	-0.112 (0.083)	-0.065 (0.080)	-0.090 (0.076)	-0.111 (0.073)
Female	0.025 (0.073)	0.084 (0.075)	0.129 (0.094)	0.194** (0.092)
Age	0.028*** (0.009)	0.017 (0.011)	0.018* (0.010)	0.013 (0.010)
Eligibility for university education	-0.300*** (0.102)	-0.232** (0.102)	-0.176* (0.103)	-0.139 (0.097)
<b>Additional control variables I</b>				
Intention to enroll in TE		0.106 (0.069)	0.159** (0.069)	0.120* (0.068)
Not enough financial resources		-0.027 (0.022)	-0.041* (0.022)	-0.018 (0.023)
Born in Switzerland		-0.008 (0.122)	-0.001 (0.118)	-0.027 (0.102)
Living with family		0.184* (0.096)	0.171* (0.100)	0.126 (0.100)
Employed		0.121 (0.092)	0.157* (0.091)	0.089 (0.095)
University education among friends/family		-0.286** (0.128)	-0.348*** (0.130)	-0.384*** (0.122)
PET among friends/family		0.076 (0.075)	0.092 (0.072)	0.112* (0.068)
<b>Additional control variables II</b>				
Region of residence				
Espace Mittelland			-0.031 (0.102)	-0.040 (0.093)
North-Western Switzerland			-0.103 (0.104)	-0.084 (0.092)
Zurich			-0.038 (0.107)	-0.055 (0.102)
Eastern Switzerland			0.082 (0.108)	0.012 (0.108)
Type of VET programme				
VET: Engineering			0.178* (0.102)	0.225** (0.097)
VET: Sciences			0.254 (0.177)	0.316** (0.157)
VET: Arts			0.052 (0.152)	0.129 (0.129)
VET: Health and Welfare			0.157* (0.092)	0.241*** (0.086)
<b>Additional control variables III</b>				
Relevance of official information sources				0.011 (0.044)
Relevance of informal information sources				0.022 (0.041)
Reasons for TE				

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Career				0.031 (0.036)
Career change				-0.109*** (0.036)
Recommendations				-0.018 (0.044)
Interest				0.085** (0.039)
Expectation of employer				0.061** (0.029)
Decision process				
Duration of decision				-0.052* (0.028)
Difficulty of decision				-0.011 (0.027)

N	180	180	180	180
Pseudo R2	0.14	0.19	0.23	0.33
Log-likelihood	-105.97	-98.95	-94.07	-82.01

Notes: Table 6 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level, and 1 per cent level, respectively.

Table 7: Heterogeneous effects estimations with parents' education differentiated into PET and university – full results table

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Subjective assessment of information level	0.055 (0.039)	0.055 (0.038)	0.085** (0.039)	0.053 (0.036)
Uncertainty about eligibility: university	0.095*** (0.021)	0.086*** (0.021)	0.086*** (0.020)	0.093*** (0.020)
Uncertainty about eligibility: PET	-0.072** (0.035)	-0.063* (0.033)	-0.072** (0.034)	-0.062** (0.028)
Difference uncertainty: PET vs. university	0.000***	0.000***	0.000***	0.000***
Misinformation on wage benefits: university	0.009*** (0.003)	0.010*** (0.003)	0.011*** (0.003)	0.011*** (0.003)
Misinformation on wage benefits: PET	-0.011* (0.006)	-0.010 (0.006)	-0.007 (0.006)	-0.010 (0.006)
Difference misinformation: PET vs. university	0.013**	0.014**	0.016**	0.01**
<b>Control variables</b>				
Parents TE: PET	-0.193*** (0.063)	-0.184*** (0.064)	-0.150** (0.063)	-0.172*** (0.059)
Parents TE: University	-0.102 (0.077)	-0.060 (0.074)	-0.097 (0.070)	-0.122* (0.066)
Female	0.088 (0.071)	0.130* (0.071)	0.174** (0.087)	0.264*** (0.087)
Age	0.027*** (0.009)	0.017 (0.011)	0.020** (0.010)	0.016 (0.010)
Eligibility for university education	-0.231** (0.097)	-0.173* (0.096)	-0.116 (0.095)	-0.069 (0.095)
<b>Additional control variables I</b>				
Intention to enroll in TE		0.095 (0.065)	0.147** (0.063)	0.122** (0.062)
Not enough financial resources		-0.022 (0.021)	-0.037* (0.020)	-0.019 (0.021)
Born in Switzerland		-0.040 (0.117)	-0.019 (0.112)	-0.037 (0.096)
Living with family		0.180* (0.095)	0.161* (0.096)	0.126 (0.101)
Employed		0.073 (0.088)	0.107 (0.085)	0.023 (0.086)
University education among friends/family		-0.262**	-0.342***	-0.397***



<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
		(0.120)	(0.121)	(0.117)
PET among friends/family		0.050	0.065	0.091
		(0.071)	(0.067)	(0.063)
<b>Additional control variables II</b>				
Region of residence				
Espace Mittelland			-0.019	-0.021
			(0.097)	(0.086)
North-Western Switzerland			-0.055	-0.015
			(0.102)	(0.094)
Zurich			0.014	0.023
			(0.104)	(0.095)
Eastern Switzerland			0.116	0.050
			(0.107)	(0.106)
Type of VET programme				
VET: Engineering			0.184*	0.247***
			(0.100)	(0.095)
VET: Sciences			0.335**	0.395***
			(0.164)	(0.141)
VET: Arts			0.059	0.182
			(0.158)	(0.118)
VET: Health and Welfare			0.156*	0.238***
			(0.090)	(0.084)
<b>Additional control variables III</b>				
Relevance of official information sources				
				0.022
				(0.042)
Relevance of informal information sources				
				0.040
				(0.044)
Reasons for TE				
Career				0.041
				(0.033)
Career change				-0.098***
				(0.035)
Recommendations				-0.003
				(0.043)
Interest				0.063*
				(0.036)
Expectation of employer				0.052*
				(0.029)
Decision process				
Duration of decision				-0.057**
				(0.026)
Difficulty of decision				-0.015
				(0.027)
N	180	180	180	180
Pseudo R2	0.20	0.24	0.29	0.39
Log-likelihood	-98.60	-92.81	-87.25	-74.83

Notes: Table 7 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level, and 1 per cent level, respectively. 'Difference misinformation' and 'Difference uncertainty' report the p-values for the Wald-test of equality of coefficients for university and PET.

Table 8: Baseline estimations including sample without (prospective) baccalaureate students

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Subjective assessment of information level	0.031	0.023	0.090**	0.071
	(0.043)	(0.040)	(0.045)	(0.051)
Uncertainty about eligibility	0.122***	0.106***	0.111***	0.094***
	(0.022)	(0.021)	(0.019)	(0.019)
Misinformation on wage benefits	0.009*	0.009**	0.011***	0.011***
	(0.005)	(0.005)	(0.004)	(0.004)
<b>Control variables</b>				
Female	0.029	0.074	0.107	0.156*
	(0.072)	(0.072)	(0.079)	(0.082)

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Age	0.014 (0.009)	0.004 (0.009)	-0.002 (0.008)	-0.007 (0.009)
Parents' tertiary education	-0.273*** (0.063)	-0.234*** (0.067)	-0.250*** (0.059)	-0.265*** (0.055)
Eligibility for university education	-0.278*** (0.082)	-0.222*** (0.083)	-0.133* (0.078)	-0.084 (0.067)
<b>Additional control variables I</b>				
Intention to enroll in TE		0.043 (0.066)	0.085 (0.066)	0.110* (0.064)
Not enough financial resources		-0.012 (0.022)	-0.044** (0.020)	-0.038* (0.023)
Born in Switzerland		-0.076 (0.122)	-0.129 (0.107)	-0.142 (0.099)
Living with family		0.161* (0.085)	0.164** (0.083)	0.135* (0.080)
Employed		0.126 (0.085)	0.117 (0.083)	0.089 (0.091)
University education among friends/family		-0.223 (0.157)	-0.362** (0.157)	-0.365*** (0.141)
PET among friends/family		0.043 (0.075)	0.117 (0.074)	0.139** (0.071)
<b>Additional control variables II</b>				
Region of residence				
Espace Mittelland			0.086 (0.093)	0.039 (0.090)
North-Western Switzerland			-0.150 (0.094)	-0.166* (0.094)
Zurich			-0.143 (0.096)	-0.158* (0.095)
Eastern Switzerland			-0.028 (0.101)	-0.082 (0.094)
Type of VET programme				
VET: Engineering			0.129 (0.079)	0.184** (0.077)
VET: Sciences			0.494** (0.235)	0.528** (0.207)
VET: Arts			0.049 (0.142)	0.057 (0.136)
VET: Health and Welfare			0.221** (0.096)	0.288*** (0.097)
<b>Additional control variables III</b>				
Relevance of official information sources				-0.052 (0.042)
Relevance of informal information sources				0.037 (0.040)
Reasons for TE				
Career				-0.013 (0.033)
Career change				-0.057 (0.041)
Recommendations				-0.038 (0.049)
Interest				-0.052 (0.051)
Expectation of employer				0.047 (0.033)
Decision process				
Duration of decision				-0.029 (0.030)
Difficulty of decision				0.015 (0.028)
N	135	135	135	135

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Pseudo R2	0.23	0.30	0.39	0.45
Log-likelihood	-71.19	-64.36	-56.19	-50.46

Notes: Table 8 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level, and 1 per cent level, respectively.

Table 9: Heterogeneous effects estimations including sample without (prospective) baccalaureate student

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
Subjective assessment of information level	0.018 (0.042)	0.010 (0.039)	0.104** (0.045)	0.075 (0.051)
Uncertainty about eligibility: university	0.145*** (0.022)	0.125*** (0.022)	0.144*** (0.023)	0.122*** (0.025)
Uncertainty about eligibility: PET	0.058 (0.047)	0.059 (0.043)	0.056 (0.046)	0.063 (0.047)
Difference uncertainty: PET vs. university	0.078* (0.047)	0.175 (0.043)	0.088* (0.046)	0.252 (0.047)
Misinformation on wage benefits: university	0.011** (0.004)	0.011*** (0.004)	0.014*** (0.004)	0.015*** (0.004)
Misinformation on wage benefits: PET	-0.011 (0.007)	-0.011 (0.007)	-0.015** (0.007)	-0.016** (0.007)
Difference misinformation: PET vs. university	0.031** (0.007)	0.019** (0.007)	0.005*** (0.007)	0.001*** (0.007)
<b>Control variables</b>				
Female	0.062 (0.074)	0.088 (0.071)	0.138* (0.080)	0.194** (0.086)
Age	0.012 (0.009)	0.002 (0.009)	-0.003 (0.008)	-0.008 (0.009)
Parents' tertiary education	-0.268*** (0.062)	-0.232*** (0.065)	-0.278*** (0.061)	-0.299*** (0.056)
Eligibility for university education	-0.219*** (0.081)	-0.172** (0.080)	-0.065 (0.076)	-0.024 (0.076)
<b>Additional control variables I</b>				
Intention to enroll in TE		0.037 (0.062)	0.089 (0.062)	0.135** (0.063)
Not enough financial resources		-0.005 (0.022)	-0.040** (0.020)	-0.038* (0.021)
Born in Switzerland		-0.089 (0.116)	-0.145 (0.092)	-0.164* (0.090)
Living with family		0.170** (0.084)	0.172** (0.079)	0.153* (0.079)
Employed		0.104 (0.083)	0.087 (0.083)	0.062 (0.093)
University education among friends/family		-0.185 (0.144)	-0.372** (0.147)	-0.401*** (0.147)
PET among friends/family		0.023 (0.076)	0.115 (0.074)	0.132* (0.068)
<b>Additional control variables II</b>				
Region of residence				
Espace Mittelland			0.063 (0.092)	0.014 (0.090)
North-Western Switzerland			-0.144 (0.091)	-0.157 (0.096)
Zurich			-0.120 (0.095)	-0.137 (0.097)
Eastern Switzerland			0.007 (0.102)	-0.064 (0.097)
Type of VET programme				
VET: Engineering			0.177** (0.087)	0.233** (0.091)
VET: Sciences			0.639*** (0.231)	0.618*** (0.194)
VET: Arts			0.158 (0.156)	0.155 (0.138)

TERTIARY EDUCATION: PET		M1	M2	M3	M4
VET: Health and Welfare				0.215** (0.092)	0.311*** (0.088)
Additional control variables III					
Relevance of official information sources					-0.038 (0.043)
Relevance of informal information sources					0.035 (0.043)
Reasons for TE					
Career					-0.026 (0.038)
Career change					-0.049 (0.035)
Recommendations					-0.030 (0.049)
Interest					-0.039 (0.049)
Expectation of employer					0.056* (0.033)
Decision process					
Duration of decision					-0.044 (0.031)
Difficulty of decision					0.012 (0.026)
N		135	135	135	135
Pseudo R2		0.34	0.39	0.50	0.56
Log-likelihood		-60.96	-56.53	-46.10	-40.55

Notes: Table 9 displays average marginal effects of probit estimations and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level, and 1 per cent level, respectively. 'Difference misinformation' and 'Difference uncertainty' report the p-values for the Wald-test of equality of coefficients for university and PET.

## Appendix III: Heckman Sample Selection Robustness Check

Table 10: Heckman sample selection test for robustness of probit results with variable "no motivation for further education"

	TERTIARY EDUCATION: YES		TERTIARY EDUCATION: PET	
	Baseline (M1)	Heterogeneous effects (M2)	Baseline (M3)	Heterogeneous effects (M4)
<b>Subjective assessment of information level</b>	0.224** (0.096)	0.216** (0.097)	0.078** (0.039)	0.079** (0.038)
<b>Uncertainty about eligibility for TE:</b>				
Overall	-0.071 (0.046)		0.029 (0.018)	
<b>Misinformation on wage benefits of TE:</b>				
Overall	-0.009 (0.011)		0.006 (0.004)	
<b>Uncertainty about eligibility:</b>				
University		-0.041 (0.059)		0.078*** (0.020)
<b>Uncertainty about eligibility: PET</b>				
		-0.148* (0.088)		-0.072** (0.033)
<b>Misinformation on wage benefits:</b>				
University		-0.009 (0.009)		0.008** (0.003)
<b>Misinformation on wage benefits: PET</b>				
		0.005 (0.015)		-0.010* (0.006)
<b>Instrument:</b>				
<b>No motivation for further education</b>	-0.491*** (0.081)	-0.492*** (0.082)		

<b>Lambda (inverse mills ratio)</b>			0.069 (0.047)	0.077 (0.047)
<b>Female</b>	0.162 (0.186)	0.169 (0.188)	0.070 (0.069)	0.113* (0.067)
<b>Age</b>	-0.060*** (0.022)	-0.059*** (0.022)	0.006 (0.011)	0.007 (0.011)
<b>Parents tertiary education</b>	0.190 (0.161)	0.196 (0.163)	-0.200*** (0.060)	-0.190*** (0.060)
<b>Eligible for university education</b>	0.245 (0.229)	0.237 (0.233)	-0.234** (0.093)	-0.178* (0.093)
<b>Not enough financial resources</b>	-0.090 (0.058)	-0.088 (0.059)	-0.025 (0.021)	-0.021 (0.020)
<b>Born in Switzerland</b>	-0.031 (0.326)	-0.020 (0.332)	0.027 (0.104)	0.012 (0.104)
<b>Living with family</b>	-0.197 (0.199)	-0.209 (0.203)	0.140 (0.090)	0.126 (0.091)
<b>Employed</b>	-0.122 (0.222)	-0.139 (0.229)	0.141* (0.084)	0.095 (0.082)
<b>University education among friends/family</b>	0.505* (0.288)	0.484* (0.293)	-0.209* (0.124)	-0.194* (0.115)
<b>PET education among friends/family</b>	0.250 (0.180)	0.235 (0.182)	0.100 (0.075)	0.085 (0.071)
<b>Constant</b>	1.933** (0.815)	1.910** (0.828)	*	*
<b>N</b>	359	359	204	204
<b>Pseudo R2</b>	0.222	0.225	0.206	0.251
<b>Log Likelihood</b>	-191.051	-190.359	-110.502	-104.267

Notes: Table 10 displays Heckman sample selection regressions. The first two rows display selection equations, with M1 including aggregated explanatory variables and M2 including disaggregated explanatory variables. The third and fourth rows display outcome equations, with M3 including aggregated explanatory variables and M4 including disaggregated explanatory variables. M1 and M2 include bootstrapped (1,000 iterations) robust standard errors. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively.

Table 11: Heckman sample selection test for robustness of probit results with variable “no adequate information on TE found”

	TERTIARY EDUCATION: YES		TERTIARY EDUCATION: PET	
	Baseline (M1)	Heterogeneous effects (M2)	Baseline (M3)	Heterogeneous effects (M4)
<b>Subjective assessment of information level</b>	0.201** (0.085)	0.193** (0.087)	0.071* (0.042)	0.077* (0.042)
<b>Uncertainty about eligibility for TE: Overall</b>	-0.079* (0.043)		0.028 (0.018)	
<b>Misinformation on wage benefits of TE: Overall</b>	-0.010 (0.011)		0.005 (0.004)	
<b>Uncertainty about eligibility: University</b>		-0.039 (0.056)		0.077*** (0.020)
<b>Uncertainty about eligibility: PET</b>		-0.166** (0.081)		-0.071** (0.034)
<b>Misinformation on wage benefits: University</b>		-0.007 (0.009)		0.008** (0.003)
<b>Misinformation on wage benefits: PET</b>		-0.001 (0.015)		-0.011* (0.006)
<b>Instrument: No adequate information on TE found</b>	-0.142** (0.070)	-0.140** (0.071)		
<b>Lambda (inverse mills ratio)</b>			0.055 (0.061)	0.072 (0.081)
<b>Female</b>	0.132 (0.173)	0.145 (0.175)	0.041 (0.070)	0.088 (0.067)
<b>Age</b>	- 0.071*** (0.021)	-0.071*** (0.021)	0.009 (0.012)	0.008 (0.012)

<b>Parents tertiary education</b>	0.245 (0.151)	0.252* (0.153)	-0.195*** (0.061)	-0.186*** (0.061)
<b>Eligible for university education</b>	0.122 (0.236)	0.131 (0.246)	-0.256*** (0.094)	-0.197** (0.094)
<b>Not enough financial resources</b>	-0.082 (0.055)	-0.079 (0.056)	-0.022 (0.021)	-0.018 (0.021)
<b>Born in Switzerland</b>	-0.383 (0.298)	-0.380 (0.301)	-0.019 (0.102)	-0.030 (0.099)
<b>Living with family</b>	-0.311* (0.189)	-0.319* (0.190)	0.122 (0.094)	0.103 (0.097)
<b>Employed</b>	-0.213 (0.216)	-0.244 (0.222)	0.149* (0.086)	0.096 (0.084)
<b>University education among friends/family</b>	0.509* (0.265)	0.498* (0.268)	-0.190 (0.131)	-0.169 (0.129)
<b>PET education among friends/family</b>	0.256 (0.170)	0.235 (0.174)	0.058 (0.072)	0.049 (0.069)
<b>Constant</b>	1.737** (0.805)	1.755** (0.814)	*	*
<b>N</b>	360	360	206	206
<b>Pseudo R2</b>	0.129	0.132	0.198	0.243
<b>Log Likelihood</b>	- 214.154	-213.366	-112.972	-106.590

Notes: Table 11 displays Heckman sample selection regressions. The first two rows display selection equations, with M1 including aggregated explanatory variables and M2 including disaggregated explanatory variables. The third and fourth rows display outcome equations, with M3 including aggregated explanatory variables and M4 including disaggregated explanatory variables. M1 and M2 include bootstrapped (1,000 iterations) robust standard errors. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively.

# Appendix IV: Tests for Multicollinearity of Explanatory Variables

Table 12: Regression post-estimation for multicollinearity: variance inflation factors (VIF) for the aggregated explanatory variables

Variable	VIF	1/VIF
Subjective assessment of information level	1.39	0.718962
Misinformation on wage benefits of TE: Average	1.33	0.751828
Uncertainty about eligibility for TE: Overall	1.21	0.823642
Mean VIF	1.53	

Notes: Regression post-estimation for multicollinearity of aggregated explanatory variables. N=180.

Table 13: Regression post-estimation for multicollinearity: variance inflation factors (VIF) for the disaggregated explanatory variables

Variable	VIF	1/VIF
Subjective assessment of information level	1.39	0.717347
Misinformation on wage benefits of TE: PET	1.61	0.620435
Misinformation on wage benefits of TE: University	1.44	0.694241
Uncertainty about eligibility for TE: PET	1.24	0.806680
Uncertainty about eligibility for TE: University	1.37	0.730616
Mean VIF	1.55	

Notes: Regression post-estimation for multicollinearity of disaggregated explanatory variables. N=180.

Table 14: Regression post-estimation for multicollinearity: matrix of correlations of aggregated explanatory variables

e(V)	Subjective assessment of information level	Uncertainty about eligibility for TE: overall	Misinformation on wage benefits of TE: average	Constant
Subjective assessment of information level	1			
Uncertainty about eligibility: overall	-0.0587	1		
Wage benefits correctness: average	-0.0173	-0.1190	1	
Constant	-0.2854	-0.1272	-0.2063	1

Notes: Regression post-estimation for multicollinearity of aggregated explanatory variables. N=180.

Table 15: Regression post-estimation for multicollinearity: matrix of correlations of disaggregated explanatory variables

Subjective assessment of information level	1					
Uncertainty about eligibility: university	-0.1006	1				
Uncertainty about eligibility: PET	0.0893	-0.1846	1			
Misinformation on wage benefits: university	0.1138	-0.0434	0.0592	1		
Misinformation on wage benefits: PET	-0.0813	-0.2641	0.0302	-0.4163	1	
Constant	-0.2526	-0.1935	0.0233	-0.0667	-0.0813	1

Notes: Regression post-estimation for multicollinearity of aggregated explanatory variables. N=180.

## Appendix V: KHB-model for Mediation Analysis

Table 16: Bivariate OLS regressions of explanatory variables on tertiary educated parents

DEPENDENT VARIABLE = Parents' tertiary education			
Subjective assessment of information level	-0.033 (0.125)		
Uncertainty about eligibility: overall		-0.228 (0.273)	
Misinformation on wage benefits: average			-1.413 (1.212)
Constant	3.753 (0.099)	2.412 (0.226)	13.577 (1.004)
N	210	210	210
R <sup>2</sup>	0.0003	0.0036	0.0070

Notes: Table 16 displays results of OLS regressions of our explanatory variables on whether at least one of the parents has a tertiary education and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively.

Table 17: Estimates of KHB models for parents' tertiary education and subjective assessment of information level

TERTIARY EDUCATION: PET	M1	M2	M3	M4
Subjective assessment of information level				
Total effect (reduced model)	-0.683*** (-3.33)	-0.690** (-3.20)	-0.829*** (-3.85)	-0.918*** (-3.74)
Direct effect (full model)	-0.691*** (-3.37)	-0.697** (-3.23)	-0.848*** (-3.93)	-0.927*** (-3.78)
Indirect effect (mediation)	0.00793 (0.34)	0.00685 (0.30)	0.0191 (0.60)	0.00858 (0.50)
Control variables	Yes	Yes	Yes	Yes
Additional control variables I	No	Yes	Yes	Yes
Additional control variables II	No	No	Yes	Yes
Additional control variables III	No	No	No	Yes
N	180	180	180	180

Notes: Table 17 displays results of KHB models to assess mediation effects of parents' tertiary education on the variable 'subjective assessment of information level' and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively. Control variables include gender, age, eligibility for university education and intention to enrol. Additional control variables I include control variables, monetary restrictions, born in Switzerland, living with family, employed, friends with university and friends with PET. Additional control variables II include additional control variables I, region in Switzerland and type of apprenticeship. Additional control variables III include control variables II and relevance of official information sources and relevance of informal information sources, duration and burden of decision process, and a list of reasons for or against enrolling in TE.

Table 18: Estimates of KHB models for parents' tertiary education and overall uncertainty about eligibility

TERTIARY EDUCATION: PET	M1	M2	M3	M4
Uncertainty about eligibility: overall				
Total effect (reduced model)	-0.715*** (-3.50)	-0.720*** (-3.36)	-0.871*** (-4.06)	-0.958*** (-3.99)
Direct effect (full model)	-0.682*** (-3.33)	-0.694** (-3.22)	-0.845*** (-3.92)	-0.934*** (-3.88)
Indirect effect (mediation)	-0.0332 (-1.01)	-0.0255 (-0.86)	-0.0257 (-0.87)	-0.0244 (-0.77)
Control variables	Yes	Yes	Yes	Yes
Additional control variables I	No	Yes	Yes	Yes
Additional control variables II	No	No	Yes	Yes
Additional control variables III	No	No	No	Yes
N	180	180	180	180

Notes: Table 18 displays results of KHB models to assess mediation effects of parents' tertiary education on the variable 'uncertainty about eligibility: overall' and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent



level, 5 per cent level and 1 per cent level, respectively. Control variables include gender, age, eligibility for university education and intention to enrol. Additional control variables I include control variables, monetary restrictions, born in Switzerland, living with family, employed, friends with university and friends with PET. Additional control variables II include additional control variables I, region in Switzerland and type of apprenticeship. Additional control variables III include control variables II and relevance of official information sources and relevance of informal information sources, duration and burden of decision process, and a list of reasons for or against enrolling in TE.

Table 19: Estimates of KHB models for parent's tertiary education and average misinformation on wage benefits

<b>TERTIARY EDUCATION: PET</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>
<b>Misinformation on wage benefits: average</b>				
<b>Total effect (reduced model)</b>	-0.706*** (-3.47)	-0.721*** (-3.36)	-0.858*** (-3.98)	-0.942*** (-3.94)
<b>Direct effect (full model)</b>	-0.709*** (-3.48)	-0.721*** (-3.35)	-0.863*** (-4.00)	-0.943*** (-3.94)
<b>Indirect effect (mediation)</b>	0.00358 (0.28)	-0.000261 (-0.02)	0.00459 (0.17)	0.00135 (0.03)
<b>Control variables</b>	Yes	Yes	Yes	Yes
<b>Additional control variables I</b>	No	Yes	Yes	Yes
<b>Additional control variables II</b>	No	No	Yes	Yes
<b>Additional control variables III</b>	No	No	No	Yes
<b>N</b>	180	180	180	180

Notes: Table 19 displays results of KHB models to assess mediation effects of parents' tertiary education on the variable 'misinformation on wage benefits: average' and robust standard errors in parentheses. \*, \*\* and \*\*\* denote significance at the 10 per cent level, 5 per cent level and 1 per cent level, respectively. Control variables include gender, age, eligibility for university education and intention to enrol. Additional control variables I include control variables, monetary restrictions, born in Switzerland, living with family, employed, friends with university and friends with PET. Additional control variables II include additional control variables I, region in Switzerland and type of apprenticeship. Additional control variables III include control variables II and relevance of official information sources and relevance of informal information sources, duration and burden of decision process, and a list of reasons for or against enrolling in TE.

## Appendix VI: Factor Analysis for Explanatory Variables

Table 20: Factor analysis for explanatory variables

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	1.120	0.103	0.373	0.373
Factor 2	1.017	0.154	0.339	0.712
Factor 3	0.863	.	0.288	1.000

Notes: Table 20 displays results of principal-component factor analysis of the explanatory variables. N=180.

Table 21: Factor analysis for explanatory variables: rotated factor loadings and unique variances

Variable	Factor 1	Factor 2	Uniqueness
Subjective assessment of information level		0.9512	0.0952
Uncertainty about eligibility: overall	0.7485		0.3837
Misinformation on wage benefits: average	0.7480		0.3843

Notes: Table 21 displays results of principal-component factor analysis of the explanatory variables after rotation. N=180.

## Appendix VII: Generating the Variable “Misinformation on Wage Benefits”

To illustrate the process behind the operationalization of the variables regarding misinformation on wage benefits, we list the steps to generate the variables in the following:

1. Take the true monthly average salary for VET, and the true monthly average salary for [TE programme] (official figures from Swiss Earnings Structure Survey, FSO (2018a))
2. Subtract the true monthly average salary for VET from the true monthly average salary for [TE programme] → difference is called ‘true benefit: [TE programme]’
3. Take the respondents’ estimations of monthly average salary for VET, and the estimations of monthly average salary for [TE programme]
4. Subtract the estimation for VET from the estimation for [TE programme] → difference is called ‘estimated benefit: [TE programme]’
5. Subtract the estimated benefit from the true benefit, divide by 100 and take its absolute value to assess the correctness of estimations (Abbiati & Barone, 2017) → variable is called ‘misinformation on benefits of [TE programme]’

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