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Data Release: Parental Investment in Children's Education A TREE2 mixed methods study

# Technical Report

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#### 1. Introduction

The present documentation provides an overview of the project "PICE – Parental Investment in Children's Education". PICE aims at explaining parental strategies, resources and aspirations and how they shape their children's educational pathways. The documentation addresses researchers who are interested in working with the PICE-data as well as researchers who are interested in the theoretical and methodological set-up of PICE. It is a product for the scientific community. This document provides information on:

- Theoretical framework and research questions
- Study Design and methods
- Structure of data and how to use them

PICE is an add-on-study of TREE, Transitions from Education to Employment<sup>1</sup><sup>2</sup>. TREE consists of two cohorts of school-leavers, TREE1 and TREE2. TREE1-respondents left compulsory school in 2000. TREE2-respondents left compulsory school in 2016. PICE is an add-on to TREE2. Together with TREE, PICE represents a mixed-methods project. PICE has seized the extraordinary opportunity to add a sub-sample of respondents who participate in a semi-structured interview to the TREE2-sample. One of the participants' parents is interviewed as well and some of them are interviewed twice. With this setup, the PICE-data have lots of potential for a diversity of secondary data analyses. Moreover, PICE has interviewed a cohort which entered the labour market or tertiary education at the time of a global pandemic. This makes it a highly interesting population to study in the future.

PICE is a collaborative project between the University of Bern and FORS (Swiss Centre for Expertise in the Social Sciences). PICE is running from 2019 to 2022 and has been financed by the Swiss National Science Foundation (SNF-Number 184906).

<sup>&</sup>lt;sup>1</sup> For detailed information on TREE: see <u>https://www.tree.unibe.ch/.</u>

<sup>&</sup>lt;sup>2</sup> The PICE-project is also presented on this website: www.pice.unibe.ch.

#### **Project management**

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Prof. Dr. Eva Mey (ZHAW; first project-year)

## 2. PICE materials – Data and documentation

This technical report presents the PICE project and provides an overview of its motivations and the material that has been developed in the context of the project. Not all materials are included in the report, but several documents are distributed separately. The file PICE-Material provides an overview of the PICE material and shows in detail where to find the respective information.

<sup>&</sup>lt;sup>3</sup> We thank the interviewers of the semi-structured interviews: Alma Amagjekaj, Catia Carvalho Ferreira, Dilara Kalayci, Elisa Conti, Mihailo Mladenovic, Nadia Fernandes Patricio, Nithursha Nadesalingam, Soner Akkaya, Lena Baumann, Kantarena Gjelaj, André Oliveira Borges, Pirintha Subramaniam, Qendresa Zeneli, Nicolas Rault.

## 3. Theoretical framework and scientific motivation of PICE

An important strand of research on migration holds that, at comparable levels of parental socioeconomic status (SES) and educational attainment, children of migrants attain higher levels of education compared to the children of natives.<sup>4</sup> This finding has been attributed to "immigrant optimism", with reference to the observation that, in comparison to native parents, migrant parents tend to have higher educational aspirations for their children. This particularly interesting in Switzerland, where for a long time, the majority of migrants belong to the lower class and where the education system is characterized by the internationally less known vocational training. Little is known about how this translates into different parental behaviors and whether differences in parents' behavior can explain why certain children have successful educational trajectories while others do not.

One reason for this research gap is that parental investment in their children is difficult to define as it compromises a multidimensional complex interplay of parental aspirations, resources and strategies. The PICE project takes an interdisciplinary perspective and sets out to explore how these dimensions jointly contribute to children's educational successes. More specifically, PICE examines the successful post-compulsory trajectories of children with parents of low levels of educational attainment and low SES – those who are considered as successful *against the odds*.<sup>5</sup> Despite the adverse conditions, children of migrant parents more often succeed against the odds and this situation has been observed in different contexts (Brinbaum & Kieffer, 2009; Feliciano & Lanuza, 2017; Liu & White, 2017). The question how parental investment supports children in succeeding against the odds is highly relevant in Switzerland. Figure 1 visualizes the theoretical model that underlies PICE.

<sup>&</sup>lt;sup>4</sup> For the full research proposal, please contact the research team.

<sup>&</sup>lt;sup>5</sup> The expressions "against the odds" (e.g. Schnell, Keskiner, & Crul, 2013, p. 126), and "against all odds" (e.g.Rezai, Crul, Severiens, & Keskiner, 2015, p. 4) have been used by other researchers in the context. Schoon (Schoon, 2006) considers as success against the odds children who show high reading achievement despite adverse socioeconomic conditions.

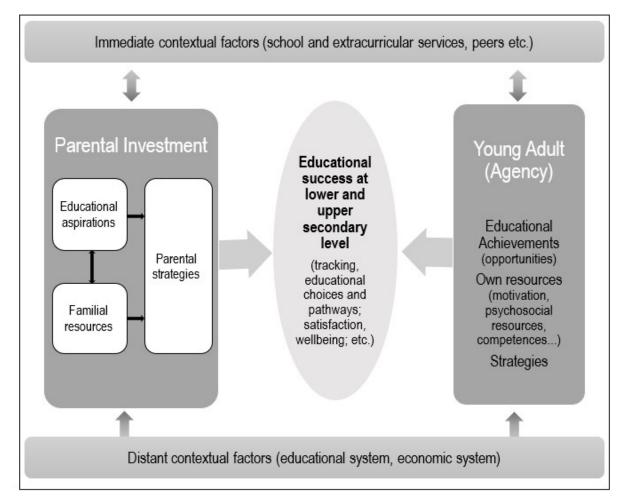


Figure 1: Theoretical model underlying PICE (based on Heckhausen & Buchmann, 2019)

## 3.1. Three dimensions of parental Investment (PI)

The focus of PICE is on parental investment (PI). PI predicts academic achievement and educational attainment (Catsambis, 2001; Ho Sui-Chu & Lam, 2016). In the literature, it is often used synonymously with parental involvement (Hango, 2007)<sup>6</sup>, comprising parents' active participation in their children's social, emotional and academic development (Castro et al., 2015). As Crosnoe (2010, p. 2) puts it "parental involvement in education refers to the ways that parents attempt to support and manage their children's educational experiences".<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> Other studies distinguish involvement and investment (e.g. Ho & Lam, 2016).

<sup>&</sup>lt;sup>7</sup> Some studies consider parental investments as economic investment in education. Here, we are interested in all types of investments (resources, time, symbolic-aspiration...).

It arises in different forms and can materialize at different places (e.g. at home or at school) (García Coll et al., 2002; Huntsinger & Jose, 2009; Punter, Glas, & Meelissen, 2016). Previous studies have focused on multiple aspects of parental investment and have clearly shown that it is a multidimensional concept (Grolnick & Slowiaczek, 1994). In PICE, we decompose the overarching PI concept into three dimensions: (1) parental aspirations for their children – divided into idealistic and realistic aspirations – (2) parental resources and (3) parental strategies.

First, parents may have educational aspirations, which can be broken down into **ideal aspirations** and **realistic aspirations** for their children<sup>8</sup>. *Ideal aspirations* are usually *unconditional* on their children's actual educational performance and opportunities; *realistic aspirations*, on the other hand, are usually realizable anticipations and *conditional* on children's academic performance and educational opportunities (Becker, 2010; Glick & White, 2004; Portes, Aparicio, Haller, & Vickstrom, 2010). In this sense, realistic aspirations are educational goals that parents want (their child/children) to fulfil. However, several important issues and questions remain open. For example, parents may or may not communicate their aspirations to their children. If they do, parent-child negotiations potentially take place and parents may or may not adjust their aspirations. Moreover, ideal and realistic aspirations may or may not guide parental actions. Until now, these processes are unknown and a better understanding of the relationship between parental aspirations and the underlying resources is needed.

Second, an important prerequisite for the development and realization of parental aspirations are available, or potentially accessible **resources**. These resources include time, economic, human/cultural, social and linguistic capitals, knowledge on the educational system, communication within the family or between the family and the school (Gofen, 2009; Sun, 1998). For example, Ho and Lam (1996) find that parental investment in educational and cultural resources at home and their involvement in social communication with their children are significantly associated with students' literacy performance.

<sup>&</sup>lt;sup>8</sup> Some of the literature also uses the terms aspirations and expectations to make this distinction. We prefer the terminology ideal vs. realistic aspirations as this is also in line with the terms in the TREE2 survey.

In general, a higher cultural and human capital correlates with more intense and higherquality parental investment (De Graaf, 1988; Esping-Andersen, 2008) and a lack of parents' linguistic skills is a disadvantage for children's educational performance (Bleakley & Chin, 2008; Dos Santos & Wolff, 2011; Schnell, 2015). Referring to Switzerland, Coradi Velacott and Wolter (2004) highlight that the specific help of some parents is limited not only by their educational background – implying, for example, that they cannot help with the completion of homework<sup>9</sup> as of a certain educational level – but often also by a limited knowledge of the local language. In some cases, this compromises parent-school communication and relations, which is reinforced by a lack of knowledge on the school system (Coradi Vellacott & Wolter, 2004).

The third component of PI are parental **strategies** to fulfil their aspirations. Strategies refer to *how* parents develop, mobilize, and use the resources when attempting to realize their aspirations. Not every use of resources is successful; even if parents have resources, they need to use them strategically. These strategies can differ tremendously and they are likely to affect their children's educational outcomes differently (see e.g. Catsambis, 2001; Hango, 2007; Pomerantz, Moorman, & Litwack, 2007).

Parental aspirations, resources and strategies are closely intertwined (Catsambis, 2001). Parents with insufficient resources, such as low levels of cultural capital, may augment and in some cases compensate this lack by adopting adequate strategies. For example, they can increase communication about school with their child and with the school, or mobilize outside help. These strategies have been revealed to be effective ways to increase children's educational performance (Crul, 2013; Glick & White, 2004). Parents' lacking informational support and lack of capability to assist with homework can also be compensated by emotional and instrumental support (Rezai et al., 2015). Additional important factors are networks and support with searching an apprenticeship place (Crul, Schneider, Keskiner, & Lelie, 2017; Haeberlin, Imdorf, & Kronig, 2005; Imdorf, 2010; Lareau, 1987; Neuenschwander, 2007; Neuenschwander, Frey, & Gasser, 2007; Roth, 2014). For Switzerland, Neuenschwander et al. (2005) have shown that migrant parents often wish for

<sup>&</sup>lt;sup>9</sup> Lacking support of help with homework has also been identified for migrants in Switzerland (Stamm et al., 2012).

a more intense cooperation with teaching staff than Swiss parents in order to compensate their lack of knowledge about the educational system. Another popular compensating strategy is the mobilization/activation of their social capital within their social network and non-familial resources (Becker, 2010; Schnell, Fibbi, Crul, & Montero-Sieburth, 2015; Sun, 1998; Yan, 1999). As previous research suggests, some strategies may be efficient while others are not (Fan, Williams, & Wolters, 2012). Potential reasons for 'failing strategies' include misperceptions of the context, vicarious experiences and cultural priorities. This suggests that parents may simply choose a wrong strategy.

## 4. Research questions and overall approach of PICE

Addressing the research gap regarding the mechanisms of "immigrant optimism" with a mixed-method approach, PICE provides a more comprehensive understanding of parental investment and strategies and of how parents can actively support the educational success of their children in post-compulsory education. Thereby, it also helps understanding why some young adults from migrant families are successful against the odds. PICE has an interdisciplinary, longitudinal and mixed-methods lens (quantitative and qualitative) to study the effects of parental investment on the post-compulsory educational success of young people of modest social background.

This project attempts to answer the following research question: What parental investments make children succeed? This major research question is operationalized in three subquestions, corresponding to three working packages (WPs): (1) What is the effect of parental investments on educational success at the end of compulsory school?; (2) What is the joint effect of parental investment and the educational situation at the end of compulsory education on post-compulsory outcomes (diplomas, educational pathways and satisfaction/well-being)? (3) What are parental investment strategies and how are they adapted over time? This integrated approach allows us to quantitatively study the types of PI and their effects on post-compulsory success and qualitatively deepen the understanding of how parental aspirations and resources are mobilized within parental investment strategies. A first data source of the PICE-project is TREE2. TREE2 is a follow-up survey of the 2016 AESproject (Assessment of the Achievement of Basic Educational Competences)<sup>10</sup>. In the context of AES, around 22'000 students, i.e. around a quarter of the population, at the end of compulsory schooling had to participate in a mathematics test. Around one quarter AESrespondents agreed to participate in TREE2 (initial n=8,429). The TREE2-follow-up includes questions about respondents' and their parents' educational aspirations, as well as information on different types of parental investments in education. In PICE we can draw from observing respondents at six time-points (t0, t1, ..., t5: from 2016 to 2021) covering a span of five years and including a good part of the transitions not only from lower to upper secondary levels, but also from upper secondary education into labour market or tertiary level education.

To complement the quantitative standardised TREE2 panel data, PICE has carried out a qualitative longitudinal survey with young adults (t4; 2020) and their parents (t4; 2020 and t5; 2021) on a sub-sample of TREE2 participants selected by an extreme case strategy. The research design of PICE is described in the next sections.

## 5. Study Design: PICE as an add-on study to TREE2

TREE2 includes a wealth of quantitative information on young adults and their families. PICE complements the quantitative data. In the context of PICE, qualitative data have been collected (see Section 6), that together with TREE2 builds the basis for mixed methods analyses. Figure 2 shows how PICE fits into the overall framework of TREE2.

<sup>&</sup>lt;sup>10</sup> Überprüfung des Erreichens der Grundkompetenzen (ÜGK). Vérification de l'atteinte des compétences fondamentales (COFO). For more information see <u>https://uegk-schweiz.ch/uegk-2016-neu/</u>.

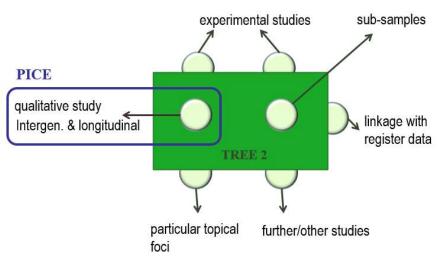


Figure 2: TREE 2 as a base survey for complementary studies («Lego» design).

Figure 3 shows the research design of PICE and the data each of the three WPs draws on. WP1 is based on a cross-sectional analysis of TREE2-data. WP2 analyses the TREE2 longitudinally. WP3 draws on the qualitative data and also adopts a mixed-methods approach.

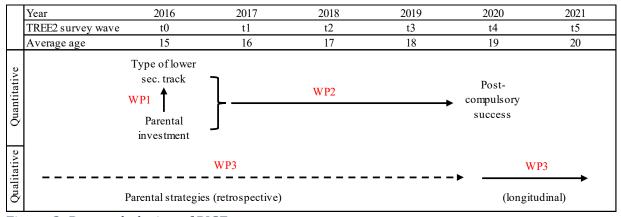


Figure 3: Research design of PICE

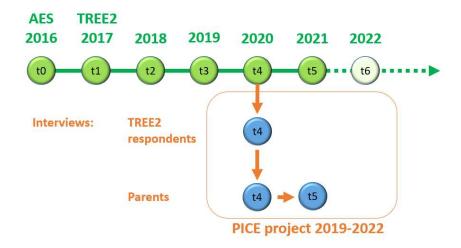


Figure *4* illustrates the timeline for PICE. The green (dark) bubbles represent the TREE2survey-waves that were already running or being set up when PICE started. The light green bubble (t6) indicates that, when this report was written (in July 2022), the t6-wave was still running.

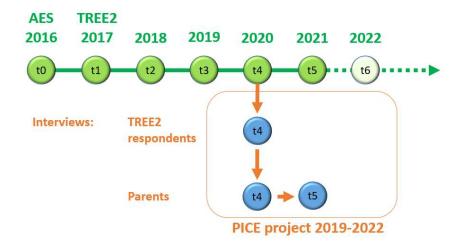


Figure *4* also shows that qualitative interviews with TREE2-respondents and one of their parents took place in the same year as TREE2 t4 (2020). A second interview with parents took place in the same year as TREE2-t5 (2021). The data collection procedure is described in detail in the next section.

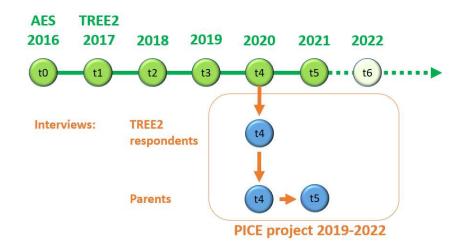


Figure 4: Methodological design of PICE as an add-on study of TREE2

## 6. Data collection and processing

## 6.1. Sampling PICE-respondents from TREE2

PICE-participants have been sampled based on the TREE2-data. The file *PICE\_participants\_TREE2variables* provides a detailed overview on the variables that were used for the sampling procedure. They are individuals who succeed "against the odds". The conditions were defined as follows: (1) Respondents attend the pre-baccalaureate or extended requirement tracks at the end of compulsory education. (2) They have parents with modest social background (no tertiary education and low/medium socio-economic status (SES))<sup>11</sup>. (3) Distribution by sex and German/French linguistic regions. (4) Distribution by country of origin<sup>12</sup>: Switzerland, Southern EU (Portugal, Spain, Italy) or non-EU (former-Yugoslavia<sup>13</sup>, Turkey, Sri-Lanka). Identifying participants was a challenging task because we had to include countries that are well-enough represented in TREE2 and interesting to study in the context of PICE.

Respondents who fulfilled these criteria were asked at the end of the TREE2-t4 survey if the research team could contact them for participation in a qualitative in-depth interview. Table

<sup>&</sup>lt;sup>11</sup> Our first strategy that was to select based on "no tertiary education AND low/medium SES". In order to reach the sample aim, we then time we added the condition "no tertiary education OR low/medium SES". <sup>12</sup> Defined as the country of birth of mothers' country of birth. Individuals with one Swiss born and one foreign

born parent were excluded from the sample.

<sup>&</sup>lt;sup>13</sup> This included Albanian- and Serbo-Croatian-speaking families.

1 shows the characteristics of young adults and their parents who participated in the interviews. 73 TREE2-respondents were interviewed in 2020, 50 parents were interviewed in 2020 and 39 parents were again interviewed in 2021<sup>14</sup>. Table 1 shows the distribution across language regions, parents' country of origin and sex of the young adults. 72% (36 cases) of parents who participated in t4 were mothers, in t5 mothers again represent 72% of the cases (28 cases).

Young adults	German-speaking region		French-speaking region		Total
	Female	Male	Female	Male	
Swiss	4 (3/ <i>2</i> )	6 (6/4)	7 (3/ <i>3</i> )	6 (5/ <i>5</i> )	23 (17/ <i>14</i> )
Southern European	5 (3/1)	6 (4/ <i>3</i> )	7 (6/5)	5 (3/ <i>3</i> )	23 (16/ <i>12</i> )
Italy	1 (0/0)	0	2 (2/ <i>2</i> )	0	3 (2/ <i>2</i> )
Spain	3 (2/1)	2 (2/1)	1 (0/0)	1 (0/0)	7 (4/ <i>2</i> )
Portugal	1 (1/0)	4 (2/ <i>2</i> )	4 (4/3)	4 (3/ <i>3</i> )	13 (10/8)
Non-European	10 (9/ <i>7</i> )	8 (5/4)	6 (2/ <i>2</i> )	3 (1/0)	27 (17/ <i>13</i> )
F-Yugoslavia	6 (5/ <i>4</i> )	4 (3/2)	3 (1/1)	1 (1/0)	14 (10/7)
Turkey	2 (2/1)	3 (1/1)	0	0	5 (3/ <i>2</i> )
Sri-Lanka	2 (2/2)	1 (1/1)	3 (1/1)	2 (0/0)	8 (4/4)
Total	39 (30/21)		34 (20/ <i>18</i> )		73 (50/ <i>39</i> )

Table 1: PICE qualitative participants in t4, parents<sup>15</sup> between brackets (parents t5 in italics)

## 6.2. Context: Covid-19-pandemic

Data collection took place in spring 2020 and spring 2021. The start of data collection in 2020 coincided with the first lockdown due to the Covid-19-pandemic. Therefore, the research team had to adjust the data collection that was initially planned as face-to-face interviews to

<sup>&</sup>lt;sup>14</sup> In our own analyses, we excluded two parental cases. Those were Swiss parents with low interview quality, which did not match well the questionnaire. Moreover, without these two cases we had enough Swiss cases and, therefore, excluded them in t5.

<sup>&</sup>lt;sup>15</sup> If there was a difference in the countries of origin between both parents, we used the information on the mother. This was hardly the case and if so, we made sure that parents came from the same region of origin.

remote interviews via video- and phone call. This worked well and, therefore, the interviews in 2021 were also conducted remotely.

## 6.3. Interviewer recruitment

All interviewers have been recruited with an elaborated recruitment process which included a full application with a motivation letter and a CV, a job interview and a decision process in team. All of them had a suitable background and knowledge in qualitative interviewing and were bilingual (under the condition that the language of expertise was their mother tongue). At t4 (2020), 13 interviewers have been recruited to fulfil the need of multilingual interviews in all the mother tongues of the parental interviews and as well German and French. At t5 (2021), based on our reduced need of interviewers due to fewer interviews and languages, 9 of these interviewers have been employed again. One Tamil interviewer had to be newly recruited, because the former interviewer had taken up another engagement.

#### 6.4. Instruments and materials for data collection

A number of instruments and materials has been prepared and used for the collection of the qualitative data. These include: a contact form sent to respondents (see 6.4.1), instructions for the interviewers (see 6.4.2), and the interview guide (see 6.4.3). The instruments and materials are described in the following sections. Moreover, we also elaborate on the interview content (6.4.3) and languages (6.4.4), consent (6.4.5), the transcription and anonymization processes (6.4.6) and a battery of questions on aspirations that has collected as part of the interviews with parents and resulted into quantitative data (6.4.7). All employees have signed a confidentiality agreement. Please consult the file PICE-Material for more information on the respective documents.

#### 6.4.1. Contact procedure and contact forms

The contact procedure was organized as follows (see **Fehler! Verweisquelle konnte nicht gefunden werden.**): All TREE2-respondents received a newsletter for the t4-TREE2-field/CATI-interview. PICE was not mentioned in this newsletter. When the t4-field started,

PICE had identified interesting TREE2-respondents as potential PICE-cases: TREE2 inserted those cases stepwise (50 cases per "package") in the fieldwork. We organized this "rolling field" in a way that the interviewers were also available at the appropriate stage and in a way that we could estimate how many cases we would get and which ones we would still have to feed into the field.

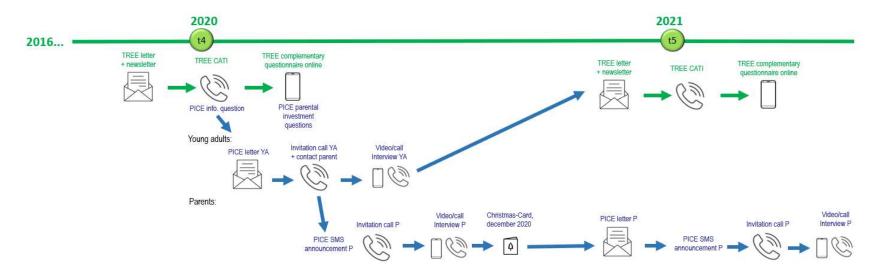


Figure 5: TREE2/PICE communication and sample maintenance

At the end of the t4-interview, TREE2-participants who had been selected for PICE were informed about the project and were asked if the research team could send some information about the PICE-study. If they agreed they were informed that they would receive a letter. Around 7 days later, they received the letter including information on the interview, the fact that we want to reach out to one of their parents and the incentive (50CHF for participation). This letter also included a flyer on the study.

When calling some days later, respondents were asked if they are still willing to participate, the date and the phone numbers of one of their parents (ideally the one most important in the educational career). The parents then received a SMS informing them about the study, underlying the importance of the parents' participation in the study and the incentive (50CHF for participation). The SMS were sent in different languages: German, French, Italian, Albanian, Turkish, Serbian, Portuguese, Spanish and Tamil.

Young adults and their parents were then contacted by phone to arrange the interview. In case of hesitation and further questions, we formulated an "Argumentarium"<sup>16</sup>, which helped the interviewer to respond to open questions and doubts. After the interview, the t4-field was finished.

Young adults and their parents also received a Christmas card in 2020 to thank them.

In spring 2021, parents were contacted again concerning a second interview. First, they received a letter and then a SMS (both translated in all the languages mentioned above) with information on the interview, their important role and the incentive. Then they were called by our interviewers. Whenever possible parents had been contacted from the same interviewer that had interviewed them the year before. During the phone call parents received additional information and a date for the interview was set.

Throughout the procedure, we presented PICE as a sub-project of TREE, so that for PICE we benefitted from the trust bonus and panel loyalty towards TREE.

<sup>&</sup>lt;sup>16</sup> Most information from the "Argumentarium" can also be found on the PICE-website: https://www.pice.unibe.ch/pice\_studie/index\_ger.html

## 6.4.2. Instruction for interviewers

Interviewers were trained in 2020 and 2021 in German and French. The training in 2020 consisted of two parts. The first part took a full day and consisted of four parts: (1) an introduction to the PICE-project, (2) an overview of qualitative research and access to the field, (3) a familiarization with the interview guide, and (4) the transcriptions. The second part took around 3 hours and was focused on the new document for online interviewing and the parental guide. For the second parental interview in 2021, interviewers were trained again. In the second round, there were fewer interviewers. This was because there were fewer interviews and fewer languages covered. We had one new interviewer for the Tamil cases, in the German field who had been trained more intensely with a second training. The other interviews were conducted by a reduced team of 2020.

## 6.4.3. Interview content and guideline

The content of the interviews was defined based on the research questions of PICE and to be complementary with TREE. This complementarity was important to shed light on the research issues from different angles. For example, in the quantitative TREE-data, questions on "success" were measures in a normative/objective way. The qualitative PICE data allows us to better understand what success means to respondents.

Most topics were identical for the young adults and their parents. However, parents were asked more questions, for example on their own educational and migration biography. We also added a short questionnaire with biographic data and two batteries on parental styles. For parental interviews in t5 for most parents, we relied on a "delta"-strategy, i.e. we did not repeat all questions, but asked about changes and continuity so that we could keep the interviews rather short. The interviews included topics relating to educational events, aspirations, resources, and parental investment strategies as well as family life and migration biography. For detailed information, see the *interview guides*.

#### 6.4.4. Interview language

The interviews with young adults were conducted in German and French. Parents could choose whether they wanted to participate in German or French or in their mother-tongue. For this purpose, bilingual interviewers had been recruited (with mother tongue in the respective foreign language). If the interview was not conducted in German or French, it was translated to either French or German by the interviewer in the transcribing-process.

## 6.4.5. Consent

At the beginning of the interviews, participants were asked orally (recording obligatory) for their consent. It was formulated along the following lines:

"Do you agree that the interview may be recorded on a Dictaphone and that the recording may be transcribed afterwards? The transcripts of the interview will be used for research and teaching purposes only.

This is done in strict compliance with data protection. The interviews will be anonymized and edited to prevent the participants from being identified.

Do you agree with the conditions of participation?"

## 6.4.6. Transcriptions and anonymisation

The interview data have been transcribed by the interviewers following the adapted transcription rules "Einfaches Transkriptionssystem" by Dresing and Pehl (2018, pp. 20-25). The research team checked the transcripts and, if necessary, gave feedback and requested improvements regarding both interviewing and transcription. The interview data have been anonymized. Given the mixed methods and longitudinal nature of the data, this has been challenging. We wanted to preserve a maximum of information and at the same time protect the respondents and comply with data protection regulations. The anonymization implied in particular the removal of proper names, cantonal educational programs, names of places and cantons. The details of the anonymization strategy can be found in the respective document.

## 6.4.7. Adding questions on aspirations into TREE2 t4

At t0, TREE2 includes questions on children's own realistic educational aspirations (*Oaspideal*; *tOaspreal*) as well as their parents' aspirations (*tOaspmf*). Information on young adults' realistic aspirations has also been collected from t1 to t3 (*t1aspreal*; *t2aspreal*; *t3aspreal*); in addition, they were asked about their idealistic aspirations at t3 (*t3aspideal*). As part of PICE, in 2020 (t4), realistic aspirations (*t4aspideal*) have been replicated to be

analysed in the context of PICE. Moreover, in t4, a battery of questions has been added on parental strategies (variable name: *t4parstra*) that consists of seven items regarding parents' involvement with regard to TREE2 respondents' education at the end of secondary II. The wording of be found the exact the questions can in document PICE\_added\_questions\_TREE2\_t4 and the variable overview in the file PICE\_participants\_TREE2variables. The data will be made available with the respective TREE2-release of fourth survey wave (https://www.swissubase.ch/de/catalogue/studies/12476/18017/overview).

## 6.4.8. Short questionnaire following the parental interview

Following the qualitative interview, parents were asked to fill in a short questionnaire on their strategies. All 50 parents responded to this questionnaire. The aim was to get information on their strategies that can be analysed in a mixed methods framework. It also contains information on the parents' professions, the number of children and some additional demographic information as well as questions on gender roles. The questions can be found at the end of the interview guides. The data are made available as part of the PICE-package.

## 7. Structure of PICE-data

Each PICE-YA (Young Adult) has a unique identifier PICE-ID which is not identical to the TREE-ID. This link between the regular TREE-ID and the PICE-Interview was disabled due to data protection restrictions. If you are interested in combining qualitative interview data and TREE quantitative data, the PICE and TREE data can be linked upon request. In this case, project description has to be submitted which will be checked by the PICE and the TREE team. If permission is granted, researchers will have to sign a contract with strict conditions.

The young adult, e.g. YA-ID *xxx* is connected to the Parent-ID, which is xx1 for the first interview and xx2 for the second interview. For example:

YA Barbara PICEID 110 P Anna T4 PICEID 111 P Anna T5 PICEID 112

#### 8. Link data to TREE

PICE has been designed as a mixed methods project. You will find the data of the semistructured interviews of TREE2-respondents and their parents. TREE2-data are available at FORS. At the time of archiving these semi-structured interview-data, TREE2-SUF-files t0-t2 had been available. Nevertheless, the PICE/TREE team was able to work with TREE2-data before releasing (Beta-Versions that will not be published). Therefore, some analyses might not be 100% replicable with the official TREE2-SUF-files.

## 9. Contact

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## 10. Obtaining the PICE-data

The PICE data are archived at FORS and distributed via SWISSUbase (project number 20043). Downloading the data requires the prior approval of the PICE-team. Please indicate if you want to use the data for research or teaching. A contract concerning data usage needs to be signed.

## 11. Project structure and funding

PICE has been financed by the Swiss National Science Foundation (SNSF; project number 100019\_184906). The project has an inter-institutional structure and is led by Sandra-Hupka-Brunner (PI, University of Bern) and Marieke Heers (co-PI, FORS). Prof. Dr. Laura Bernardi (University of Lausanne) and Prof. Dr. Ben Jann are project partners. Most work was carried out by Andrés Gomensoro and Chantal Kamm.

An international advisory board has provided support and advice with regard to the methodological and analytical design of PICE. Members of the advisory board are: Prof. Dr. Christophe Delay (EESP, Lausanne), Prof. Dr. Andreas Hadjar (University of Fribourg) and Prof. Dr. Katariina Salmela-Aro (University of Helsinki). Prof. Dr. Eva Mey (ZHAW) was part of the Advisory Board during the first year.

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