TREE

Transitionen von der Erstausbildung ins Erwerbsleben
Transitions de l'Ecole à l'Emploi
Transitions from Education to Employment

International Conference on Youth Transitions

Conference Contributions

11 / 12 September 2009
University of Basel

www.tree-ch.ch

UNI BASEL

Proposal for citation:

TREE (2010). International Conference on Youth Transitions. Conference Contributions. Basel: TREE.

International Conference on Youth Transitions

University of Basel on 11 and 12 September 2009

Kollegienhaus University of Basel, Petersplatz 1, 4051 Basel, Tel: +41 61 267 28 28

Conference Contributions

Apokin, Alexander:
Student employment 5

Bayard¸ Sybille:
The role of soft skills for the transition into vocational training – a multi-informant perspective 6

Becker, Rolf:
Why are working class-children diverted from higher education and what could be done in order to motivate the working classes for tertiary education? An empirical simulation with implications for educational policies 11

Berchtold, André; Cicognani, Mélanie; Suris, Joan-Carles:
Multiple imputation of missing TREE data 33

Blossfeld, Hans-Peter; Buchholz, Sandra:
Young Workers, Globalization and the Labor Market: Comparing Early Working Life in Eleven Countries 57

Cattaneo, Angela; Donati, Mario:
Fifteen Years of Transitions: A longitudinal study of the educational and professional transitions of young people at the completion of their compulsory education 58

di Paola, Vanessa; Moullet, Stéphanie:
Access to secure job at the beginning of the career : How and Who? 65

Duplouy, Bérangère; Rouaud, Pascale:
An approach of non response in Generation Surveys, France 66

Gayle, Vernon
Youth Transitions – Future direction for data, methods and theory 67

Guilley, Edith; Silver, Ruth; Donati, Mario; Amos, Jacques; Suris, Joan-Carles:
Resilience to critical events and interactions with educational and employment trajectories within the TREE study; the first steps of the project 68

Hegna, Kristinn:
Two longitudinal youth surveys hosted by NOVA - Norwegian Social Research 73

Hudson, Julie:
Educational Pathways of Canadian Youth: Findings from the Youth in Transition Survey 78

Hupka-Brunner, Sandra; Gaupp, Nora; Stalder, Barbara E.; Lex, Tilly; Geier, Boris:
Educational Pathways of disadvantaged Youth in Germany and Switzerland 79

Imdorf, Christian; Seibert, Holger; Hupka-Brunner, Sandra:
How VET Systems Provide Educational Opportunities 82

Kammermann, Marlise:
Do I get a job? 87

Kergel, Sabine; Hepp, Rolf:
The situation of young professionals: using the example of school leavers in Berlin 92

Kriesi, Irene; Scherrer, Regina; Buchmann, Marlis:
Children's School Enrolment: How Do Opportunity Structures Within and Outside the Family Affect First Graders' School Adjustment? 96

Meyer, Thomas:
Longitudinal youth survey research today and tomorrow: what lessons can be learned from TREE? 100

Neuenschwander, Markus P.; Stalder, Barbara E.:
Work Values during the transition from school to work 105

Schmid, Evi:
Re-entry after dropout from apprenticeship training 107

Stadlmayr, Martina; Niederberger, Karl; Lentner, Marlene:
Methodical accesses to (educational) disadvantaged youth in the field of applied social science 123

Suris, Joan-Carles; Akré, Christina; Bélanger, Richard; Michaud, Pierre-André; Berchtold, André:
The relationship between cannabis and tobacco from adolescence to young adulthood 124

Zimmermann-Sloutskis, Dorith; Zimmermann, Erwin; Wanner, Miriam; Martin, Brian W.:
Educational track position, membership in a sport club and sport practice among adolescents and young adults: a longitudinal approach. The Swiss Household Panel (SHP) 1999-2007. 125

Student employment

Alexander Apokin

Institute for Economic Forecasting of Russian Academy of Sciences

Student employment is a widespread, fast-growing and largely theoretically unexplained phenomenon. The share of employed US students at the age 16-24 is over 50%. In most European countries the situation is similar: the fraction of students in employment varies from 48% in France to 77% in the Netherlands. This phenomenon currently presents a considerable challenge for both labour and education economics to explain it and education policy to choose the way of dealing with it.

While classical Spence model predicts that diploma may serve as a signal at the labor market in the sense that more productive workers will get diploma and less productive ones will not, at the Russian labour market for students and young graduates the situation is rather reverse. In Russia, around 90% of students have job at the time of graduation. More than 40% start to work as early as their third year at the university.

This explicitly contradicts both human capital theory and signaling theory of education. Thus, there is a need to devise theoretical framework to provide some plausible explanation to this widespread phenomenon.

We present a model that explains why there exists such a widespread student employment in Russia with more able students being more active in seeking the job and starting their careers earlier, sacrificing the quality of education they get while striving to work full-time.

We take into account an endogeneity of education effort requirement (that follows due to the absence of educational standards enforcement) set by universities, and demonstrate that alternative signaling by job experience may exist even if productivity increase from education is high enough. We use the employers' rationale to make an equilibrium refinement and to explain the features of equilibrium that emerge at Russian labor market for youth labor force.

We put the Russian situation in a broader comparative context using Russian Education Monitoring, Eurostudent 2000 and a number of national data sources and surveys on education and labour market for students and young graduates in different countries. The data does not contradict model outcomes and outlines notable features of student behaviour in Russia, such as peculiarities of student time use on work. Namely,

- Students with better academic achievements start to work earlier
- Almost all high-school graduates are enrolled in university programs
- For a considerable fraction of students, their future career will not be related to the education field they choose, but rather to an employment occupation they choose to combine their studies with.

Observations suggest that students in Russia choose to forego their human capital accumulated in the university in favor of human capital obtained at work. Moreover, for CV purposes students view higher diploma grades and work experience as substitutes, and usually prefer the latter. Thus they clearly ignore signalling value of higher education received and perceive human capital accumulated in education as inferior.

The role of soft skills for the transition into vocational training – a multi-informant perspective

Sybille Bayard
Jacobs Center University of Zürich, Switzerland

Abstract

There is broad consensus among experts and in public opinion that soft skills are an important prerequisite for success in the labor market (Cotton 1993; Moser 2004). However, little is known about the relevance of soft skills for the transition from school to vocational training. This paper investigates, first, whether Swiss adolescents who enter vocational training directly have more soft skills than adolescents who are forced to complete a gap year, such as a 10th school year, after compulsory school. Second, based on previous multi-informant research, the paper explores whether differences in the assessment of soft skills between adolescents, teachers and parents have an impact on the transition into vocational training. Third the paper analyses whether the observed transition disadvantages of adolescents with a migration background can be explained by teacher's stereotypic assessment of soft skills.

Drawing on psychological competence classifications, I posit that productive competences (e.g. resource management), personal competences (e.g. self-esteem), and social competences (e.g. prosocial behavior) affect the transition into vocational training. I presume that adolescents' overestimation of their soft skills compared to their teachers influence the transition negatively because of not adequate support in the process of occupational decision. Based on sociological theories of inequality I assume finally that teachers' stereotypic assessment of soft skills explain transition disadvantages of adolescents with migration background.

The analyses are based on the first and second wave of the *Swiss Longitudinal Survey of Children and Youth* (COCON), a longitudinal study of the development of social competences, values, and educational trajectories of three birth cohorts. I make use of the youth cohort including 1173 adolescents who were between 15 and 17 years old at the time of the survey in 2006, 2007/08. Additional information was collected from primary care givers and teachers by written questionnaires.

The results show that soft skills are indeed relevant for the transition into vocational training. In addition, adolescents' smooth transition to vocational training is hampered if they assess their soft skills more positive compared to their teachers. Finally, the results indicate that teachers' assessments of soft skills are biased by group-specific stereotypes, which affect the transition of adolescents with a migration background negatively. In sum, the findings emphasize the importance of integrating different informant groups in the analyses.

The role of soft skills for the transition into vocational training – a multi-informant perspective

Sybille Bayard
Jacobs Center, University of Zurich

Universität Zürich

a JACOBS commitment FOUNDATION

Research questions

1. Do adolescents who enter vocational training directly have more soft skills than adolescents who complete a gap year after compulsory school?
2. Do discrepancies of soft skill-assessments between teachers and adolescents/parents affect the direct transition into vocational training?
3. Are teachers' assessment of students' soft skills guided by group specific norm perceptions? How does they affect the transition into vocational training?

Definitions

(Moss & Tilly 2001)

Hard skills = technical knowledge: basic knowledge (school work) or job-related skills (professional training)

Soft skills = informal competences (multi-disciplinary): skills which pertain to personality, attitude, and behavior rather than to formal or technical knowledge

Relevance of soft skills in the labor market

- Broad consensus in research and in public opinion that soft skills are important and that they have gained in importance

⇨ 65% of job advertisements ask for soft skills: relevance similar to formal education (Salvisberg 2008)

⇨ Relevance of soft skills for labor market success (e.g. income, employment, work experience cp. Groves 2005; Heckman et al. 2006). Mostly self- report of soft skills

Soft skills and transition into vocational training: previous research

- Relevance of soft skills for transition into vocational training unknown

Previous research: views of Human Resource managers (HRM)

- Soft skills gained in relevance compared to hard skills (Geser 1999; Moss & Tilly 2001; Moser 2004)

Soft skills and transition into vocational training: previous research

- Weak correlation between school achievement and successful transition into apprenticeship (Haeberlin et al. 2004; Meyer 2003)
- Some groups of adolescents are less successful in the transition into vocational training, even when hard skills are controlled, (e.g. grades, achievement tests):
  - women
  - adolescents with migration background
  - adolescents of lower school level
- These groups are overrepresented in gap years

Soft skills and transition into vocational training: previous research

- Reasons for transition disadvantages of certain groups: existence of group-specific stereotypical perception of soft skills (Hollstein 2007)

Soft skill-assessment of various informant groups

- Up to now: only particular informant groups considered (HRM, self-perception of soft skills)
- No comparative data between different groups of individuals involved in occupational decision making (e.g. adolescents, teachers, parents)
- Previous multi-informant research demonstrates that the perception of different groups of persons diverges quite strongly (e.g. Kraemer et al. 2003)

⇨ need to integrate different views in analyses, focus on inter-group differences in assessment

Which soft skills are important for the transition into vocational training? (Erpenbeck and von Rosenstiel 2003)

1. Productive Competences disposition & ability to achieve
   potential productivity = main interest of the firm
2. Self-Competences self-perception & self-assessment
   important condition for objective and subjective professional success (Pinquart et al. 2003)
3. Social Competences communicative & cooperative behavior
   ability to work in a team is one of the most demanded competences (Cotton 1993)
4. Technical-methodical competences use of technical knowledge in day-to-day work with specific problems

Measures

Class	Self-Competences	Productive Competences	Social Competences	Technical-methodical Comp.
Attri-bute	self-perception & self-assessment	disposition & ability to achieve	communicative & cooperative behavior	use of technical knowledge
Mea-sures	self-esteem	willingness to achieve resource management (volition + persistence)	prosocial behavior aggressive behavior (-)	

Hard skills: school level and school achievement

Soft skill-assessment of various informant groups

Hypotheses: differences have negative effects

Adolescents' overestimation leads to:
- Limited use of their own strategies of action
- Problems in social contact
- Missing or wrong support from teachers

Parents' overestimation leads to :
- Inadequate support

Disadvantage of adolescents with migration background

- Effect of group-specific standards of normality and expectations on school achievement: Pygmalion effect (Rosenthal and Jacobson 1968)
- Teachers as gatekeepers influence the transition into vocational training in interaction with significant symbols (Solga 2004)

Disadvantage of adolescents with migration background

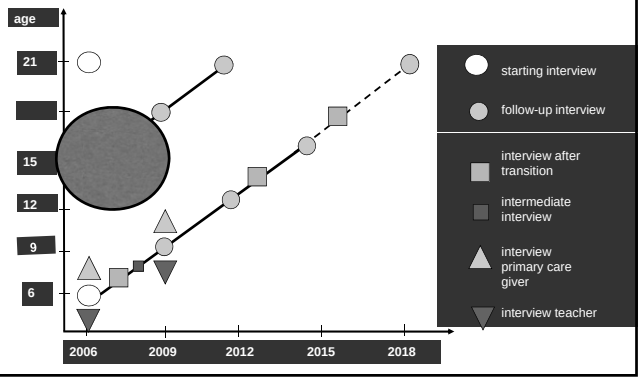
- Moss and Tilly (2001): stereotypes of HRM are confounded with assessment of hard and soft skills
- School context: effort of adolescents with migration background is underestimated (Kronig 2007)
- Assumption: mediating role of grades differs for adolescents with migration background

⇨ grades are less important for teachers soft skill-assessment of adolescents with a migration background

Data

- Data base: COCON Competence and Context Schweizer Befragung von Kindern und Jugendlichen Enquête suisse sur les enfants et les jeunes Swiss Survey of Children and Youth
- Longitudinal study of the development of social competences, values, and educational trajectories
- Study representative for the German- and French-speaking part of Switzerland
- 3 age groups (6-, 15-, 21-year olds)
- 15-year olds: N = 1258

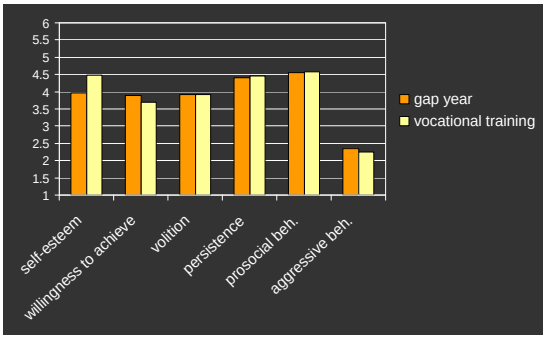
COCON: design



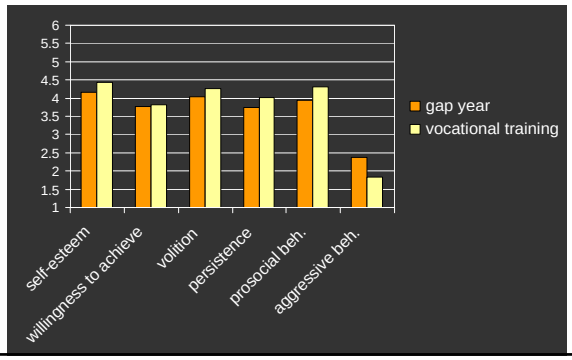
Methods

- Measurement points: 15-, 16-, (17-) year olds (data before and after transition)
- Different self- and external selection processes: adolescents in non-vocational school tracks and adolescents without follow-up solution excluded
- Only cases with data from adolescents, primary care givers and teachers
- Gap year (n = 133) vs. vocational training (n = 233)

Competences of adolescents in vocational training vs. gap year – self-perception



Competences of adolescents in vocational training vs. gap year – teachers' view



Disadvantage of adolescents with migration background: correlations grades - competences

	Self-perception /southeast Europe	Self-perception /other	Teacher-perception /southeast Europe	Teacher-perception /other
Self-esteem	.17	.15**	.38**	.26**
Willingness achieve	-.05	.17**	-.06	.41**
Volition	.39**	.30**	.14	.36**
Persistence	.24*	.31**	.05	.43**
Prosocial beh.	-.08	.08	-.14	.22**
Aggressive beh.	.02	-.17**	.21	-.17**

	model 1		model 2	
	B/SE	Exp(B)	B/SE	Exp(B)
Sex (f=1)	1.4/.26	4.05***	1.7/.37	5.39***
nationality (other = 1)	-.7/.37	.50*	-1.1/.49	.34*
school level: secondary C (Ref. A)	1.5/.34	4.25***	1.3/.44	3.80**
school level: secondary B (Ref. A)	.7/.34	2.10*	.3/.39	1.28
grades	-.3/.59	.78+	.5/.54	1.71
self-esteem (TP)			-.4/.18	.70*
diff. self-esteem self - teacher			-.3/.16	.72*
resource management (TP)			.3/.45	1.38
diff. resource man. self - teacher			.5/.18	1.56*
prosocial behavior (TP)			-.3/.20	.76
diff. prosocial parent - teacher			-.2/.16	.82
aggressive behavior (TP)			.2/.17	1.22
diff. aggressive parent - teacher			-.4/.16	.66*
grades * resource management			1.3/.75	3.61+
grades * nationality			-.7/.56	.48
resource man. * nationality			-.8/.47	.46+
grades * resource management * nationality			-1.6/.77	.20*
Constant	-1.6/.59	.20**	-2.3/.79	.11**
Nagelkerke's R^2	22.9		40.6	

Controlled for age, language region and social status parents (+ p < .10; * p < .05; ** p < .01; *** p < .001)

Summary - Conclusion

- Self- and productive competences are important.
- Assessment of adolescents' soft skills differs – teacher assessment: adolescents in gap years inferior to adolescents in vocational training.
- Adolescents' and parents' overestimation can hamper a smooth transition into vocational training: inadequate support and wrong self-presentation and behavior.

⇨ Relevance of multi-informant research

Summary - Conclusion

- Adolescents with migration background are disadvantaged due to stereotypical perception – they have difficulty dissociating themselves from the group attribute.
- Teachers' group-specific standards of normality as contributing factor for the disadvantage.
- "Extended Pygmalion-effect" on transition is shown.

Thank you for your attention!

Why are working class-children diverted from higher education and what could be done in order to motivate the working classes for tertiary education? An empirical simulation with implications for educational policies

Rolf Becker

Professor and Director of the Department of Sociology of Education, Chair of Sociology of Education, University of Bern, Switzerland

Abstract

In spite of the moderate educational expansion, the decline of social inequality of educational opportunities in compulsory schooling, and the several reforms in vocational and tertiary training, the low enrolment of students at Swiss universities, the minor proportion of academics at the population, and the distinctive social inequality at the transition to the tertiary education in Switzerland is evident. From the perspective of the individuals' educational career, it is assumed that – additionally to the structure of the educational system – the primary effect of social origin (i.e. effect of socioeconomic parental background on individual's achievement and motivation) and the secondary effects of social origin (i.e. effect of the socio-economic position of the parental home on educational decision) are responsible for that children from less educated parents are underrepresented at the Swiss universities. Since the institutional supply of vocational training seems to be less risky and costly for the working class children, they are diverted from the higher education at early transitions in the Swiss educational system already. According to empirical findings for high-school graduates, their subjectively expected benefits of higher education, their subjectively expected success in university training as well as their educational decision on continuing tertiary education, in particular, are crucial for this empirical fact of social stratification in tertiary education. Both, the selection and filter processes of the Swiss school system as well as individuals' achievement and educational choices provide the counterproductive effect that the talented offspring from socially disadvantaged classes will be diverted away from the higher education and the universities.

On the one hand, in order to test this hypothesis, we need large-scale data set including detailed information on the individuals' social origin, their achievement, and educational choices at the transitions in their educational career. On the other hand, we need also huge longitudinal data on the individuals' educational career in order to detect the genesis of social inequality of educational opportunities and the consequences of social origin on the educational attainment. In Switzerland, these methodological and theory driven requirements are largely met by the TREE longitudinal data set only. Using this data set for 2,800 pupils in the German-speaking part of Switzerland we investigate their continued schooling in the higher secondary school (Gymnasium), their eligibility for tertiary education, and their actual transition to the tertiary education. In order to investigate their opportunities at their first transition from the primary school into the secondary school, we analyse cross-sectional data from another German-speaking canton. These both data sets provide the calculation of the size of primary and secondary effects of social origin at the several transitions in the educational system. Additionally it is possible to simulate the effects of educational policies which seek to neutralize the effects of social origin on individuals' opportunity of education. From the longitudinal view of educational careers we are interested to find an empirically based answer on the question how the working class-children could be motivated for tertiary education.

For Switzerland, our empirical analyses illustrate the deficits of the current data infrastructure. Neither the official statistics (i.e. census data) and other process-produced data nor the independent scientific surveys (i.e. Swiss Household Panel) are sufficient for describing the output of the Swiss educational system (including the structure, cause, effects, consequences, and the change) in detail. Therefore, modern educational research as well as rational educational policy needs a sound data infrastructure. In our view, only a large-scale Swiss national educational panel survey (SNEPS) provides these requirements.

Why are working-class children diverted from higher education and what could be done in order to motivate the working classes for tertiary education? An empirical simulation with implications for educational policies

Prof. Dr. Rolf Becker
Professor and Director of the Department of Sociology of Education
Chair of Sociology of Education
University of Bern
Muesmattstrasse 27
CH-3012 Bern

Phone: +41(0)31/351 5351
Email: rolf.becker@edu.unibe.ch

Keynote prepared for presentation at the international and interdisciplinary conference "Youth in Transition" in Basel on September 11 and 12, 2009.

First Draft!

Please don't quote without the author's permission

Abstract: Why are working class-children diverted from higher education and what could be done in order to motivate the working classes for tertiary education? An empirical simulation with implications for educational policies

In spite of the moderate educational expansion, the decline of social inequality of educational opportunities in compulsory schooling, and the several reforms in vocational and tertiary training, the low enrolment of students at Swiss universities, the minor proportion of academics at the population, and the distinctive social inequality at the transition to the tertiary education in Switzerland is evident. From the perspective of the individuals' educational career, it is assumed that – additionally to the structure of the educational system – the primary effect of social origin (i.e. effect of socioeconomic parental background on individual's achievement and motivation) and the secondary effects of social origin (i.e. effect of the socio-economic position of the parental home on educational decision) are responsible for that children from less educated parents are underrepresented at the Swiss universities. Since the institutional supply of vocational training seems to be less risky and costly for the working class children, they are diverted from the higher education at early transitions in the Swiss educational system already. According to empirical findings for high-school graduates, their subjectively expected benefits of higher education, their subjectively expected success in university training as well as their educational decision on continuing tertiary education, in particular, are crucial for this empirical fact of social stratification in tertiary education. Both, the selection and filter processes of the Swiss school system as well as individuals' achievement and educational choices provide the counterproductive effect that the talented offspring from socially disadvantaged classes will be diverted away from the higher education and the universities.

For Switzerland, our empirical analyses illustrate the deficits of the current data infrastructure. Neither the official statistics (i.e. census data) and other process-produced data nor the independent scientific surveys (i.e. Swiss Household Panel) are sufficient for describing the output of the Swiss educational system (including the structure, cause, effects, consequences, and the change) in detail. Therefore, modern educational research as well as rational educational policy needs a sound data infrastructure. In our view, only a large-scale Swiss national educational panel survey (SNEPS) provides these requirements.

1. Introduction

Although Switzerland has witnessed a moderate educational expansion and several institutional reforms in vocational and tertiary training since the last centuries, followed by the decline of social inequality of educational opportunities in compulsory schooling, the low enrolment of students at Swiss universities compared to other European countries is evident. Compared to the OECD countries, the proportion of academics at the population is under average in Switzerland (OECD 2007). There is a distinctive social inequality at the access to tertiary education at universities – traditional academic university as well as the universities of applied sciences – among the social classes.

Thresholds	First transition	Second transition	Third transition	Fourth transition	
Primary School	Secondary school with extended requirements or pregymnasial track	Continuation of secondary school education in *Gymnasium*	Eligibility for university training (*Matur/ Berufsmatur*)	Enrolment in university training	
				Type 1+2	Type 1 only
Total: 100%	71.5%	43.5%	37.7%	29.4%	15.5%
Parental education					
High: 100%	75.4%	55.0%	52.0%	43.2%	26.6%
Middle: 100%	70.5%	44.0%	33.1%	23.6%	9.4%
Low: 100%	67.5%	21.8%	23.0%	16.1%	6.6%

Legend: Type 1 = Academic university (first-tier); Type 2 = Second-tier university (Fachhochschule)
Source: TREE (Waves 1-6) – own calculations (German-speaking Switzerland only)

If we have a look on empirical facts for the German-speaking part of Switzerland, calculated by the longitudinal panel-data of the TREE survey, it becomes obvious again that the way to tertiary education at universities is long and hard for each of the cohorts (see *Table 1*). Almost 29 percent of the Swiss juveniles born around 1985 have "survived" in the Swiss educational system until their enrolment at the first-tier universities (type 1: the traditional academic universities) or second-tier universities (type 2: *Fachhochschulen*). However, the tertiary education at the universities is mainly the domain of the offspring from academics. While round 43 percent of them start university training, only 24 percent of the children from middle classes and almost 16 percent of children from less-educated parents continue their education and training at the university. On the one hand, this class-specific share of enrolment in tertiary education reflects the significant inequality of educational opportunities: The offspring of the academic class has 2 times better chances for access to universities than the middle-class children, and the socially privileged children in the upper classes have 4 times better chances for enrolment at the university than working-class children. Compared to the

access to first-tier university, both the introduction of the *Berufsmatur* for graduates of secondary vocational training in 1993 – the new higher education entrance qualification for continued training at the second-tier university – and the institutionalization of second-tier universities (*Fachhochschulen*) in 1996, have contributed somewhat to the decline of inequality of educational opportunities in tertiary education, but the social disparities remain significant. In spite of these institutional reforms, the institutions of higher education seem still to be reserved primarily for the already privileged offspring of service-class families.

On the other hand, if we observe the transition patterns from the primary school to the tertiary education, in particular, the children from less-educated parents as well as the middle class-children are more likely diverted from the direct way to the universities than the children of well-educated parents with academic qualification. This pattern of lower-class and middle-class children's diversion from higher education, particularly from the first-tier university, is characteristically for highly stratified and segmented educational system which requires some efforts and costs from the lower-class children to surmount the many branching points regulated by rigid rules of sorting, filtering and selection of the individuals (Müller and Karle 1993; Mayer et al. 2007; Becker und Hecken 2009a). And it is also exemplary for educational systems offering a broad alternative education in the vocational training sector (Müller and Pollak 2007; Becker und Hecken 2009b). Finally, this is typically for a closed system of tertiary education like the Swiss educational system (Arum et al. 2007).

According to Mare (1981), the effect of social origin is strong at the first branching point in the educational career and declines for later transitions (Buchmann et al. 2007). This might be true for the highly stratified educational system in Switzerland (Buchmann und Charles 1993). The life-course hypothesis suggested by Müller (1994) stresses that pupils at early branching points are more dependent on their parent's preferences and their socio-economic resources than at later transitions. That means that the life-course hypothesis explains the decline in the effect of social origin on successive transitions by arguments about decreasing dependence on family in the life course. According to the differential selection hypothesis suggested by Mare (1981), the children from lower classes meet very severe selection barriers at the earlier educational transitions. While the middle-class and upper-class children progress into secondary schools and university with greater ease, only the brightest children from lower social classes will have access to the higher education. The differential selection hypothesis relates the declining effect of social origin on successive transitions on the institutional selection process and the self-selection of individuals from lower social classes with low ability and motivation (see also Blossfeld and Shavit 1993).

According to the reproduction thesis claimed by Bourdieu and Passeron (1977) or the thesis of maximally maintained inequality suggested by Raftery and Hout (1993), however, increasing stratification in higher education is rather likely if the primary and secondary school become universal for all social classes. On the one hand, so Bourdieu and Passeron (1977), the upper social class (*Obere Dienstklasse*) attempts to defend their privileged educational opportunities by diverting the working-class children from the higher education. Increased requirements for obtaining higher degrees and the self-selection of the lower classes in respect of under-average achievement as well as the creation of new socially exclusive educational institutions reserved for the upper class, and in particular, alternative educational pathways attractive to lower classes leading to the self-diversion of the working and lower middle classes from tertiary education are the main instrument used by the social elites. On the other hand, so Raftery and Hout (1993), the educational expansion in the tertiary education is in favour to the lower and middle classes, but for the socially privileged classes, too. If it would be easier for the upper classes to send their offspring in university training then they tend more likely exhaust this opportunity for their children with less achievement and low educational success than the other classes. In the first time, the shift of the social structure of educational opportunities to the tertiary education will therefore result in the increase of inequality of educational opportunity at the transition to the university training. After some time, if the upper class has saturated their demand for higher education, there is a significant decline of inequality of educational opportunity.

Since these both latter hypotheses could not be tested directly due to the lack of appropriate longitudinal data for several birth cohorts, we test in the first step both former hypotheses by employing two data sets. The first data set comprises the longitudinal data of the TREE survey (TREE 2008). Since the TREE longitudinal data consider only individuals from age 15, we have no information on the transition at the first branching point, in particular, on the individuals' achievement in the primary school. Therefore, we exploit also cross-sectional data collected by Moser and Rhyn (2000) for a canton in the German-speaking part of Switzerland. This data set provides detailed information on the transition from the primary school to the secondary school.

For the sake of simplicity, three levels of parental education are distinguished indicating the social origin of their children. Utilizing multinomial logistic regression – as suggested by Breen and Jonsson (2000) – we find that the effect of social origin actually decreases significantly after each branching point (see *Table 2*). This result supports the life-course hypothesis. Considering the adequate risk set at each of the branching points in the

individuals' educational career, the impact of social classes diminishes after each transition to the next level in the Swiss educational system.

Table 2: Multivariate analyses of educational transitions depending on social origin (odds ratios, estimated by binary logistic regression and multinomial logistic regression)

Destination	SER	PGym	VET	HVT	Gym	Matura		AU
Thresholds	*1*			*2*		*3*	*4*	
Social origin								
Low	1	1	1	1	1	1	1	1
Middle	2.93*	6.48*	1.48*	2.92*	2.69*	1.66*	1.13	0.98
High	3.52*	28.3*	1.18	3.23*	5.70*	3.62*	1.45	2.88*
Pseudo-R^2	0.080			0.029		0.046	0.026	
N	1,212			1,633		1,243	438	

* $p \leq 0.05$

Legend: Model 1: SER = Secondary school with extended requirements, PGym = Pregymnasial secondary school (Ref.: Lower secondary school basic requirements); Model 2: VT = Vocational education and training, HVT = Higher Vocational Training, Gym = Gymnasium (Ref.: Others); Model 3: Ref.: Other vocational training Model 4: UAS = University of Applied Sciences (Fachhochschule), AU = Academic University (Ref.: Vocational training)

Sources: Moser and Rhyn (2000), and TREE (Waves 1-6) – own calculations

This finding is still valid when individuals' achievement – measured by their grade point average for mathematics and German – has been taken into account (*Table 3*). According to the differential selection hypothesis, the individuals' achievement is not significant for the continuation of advanced secondary education as well as for the transition to the tertiary education.

Table 3: Multivariate analyses of educational transitions depending on social origin and individual achievement (odds ratios, estimated by binary logistic regression)

	P-SER/Gym	C-Gym	Matura	VET-TE
Branching point	*1*	*2*	*3*	*4*
Social origin (level of parental education)				
Low	1	1	1	1
Middle	2.57*	2.18*	1.64*	1.06
High	5.38*	4.58*	3.55*	2.21*
Achievement				
Grade point average	141*	1.13	1.69*	1.05
Pseudo-R^2	0.660	0.058	0.056	0.025
N	1,212	1,633	1,243	438

* $p \leq 0.05$

Legend: P-SER/Gym: Primary-School to Secondary school with extended requirements resp. Gymnasium vs. other secondary school tracks; C-Gym: Continued schooling in Gymnasium vs. other training; Matura: Attainment of higher education entrance certificate vs. other certificates; VET-TE: Vocational education and training vs. enrolment in tertiary education (universities and Fachhochschulen)

Sources: Moser and Rhyn (2000), and TREE (Waves 1-6) – own calculations

However, the question is open why there is still a net effect of social origin for the transitions in the educational career. Additionally, it has to be stressed that qualitative diversification of the binary system of tertiary education seems to contribute to decreasing inequality of educational opportunities for the older pupils. However, finally, one has to be aware that the

inequality of educational opportunity is still distinctive at later stages as well as at the aggregate level of the total population. From theoretical point of view, on the one hand, this result does not agree with the reproduction thesis suggested by Bourdieu and Passeron (1977). According to their approach the effect of social origin for the third and fourth branching point should be insignificant if one take the GPA into account. On the other hand, we find no indication the demand of the upper class has been saturated at the access to tertiary education. However, the theoretical problem of the MMI thesis is that it does not predict the threshold of the saturation. From the statistical point of view, one could claim for Switzerland that the upper class has not reach the threshold point of saturation already; without data for several cohorts this interpretation remains meaningless (Breen and Jonsson 2005).

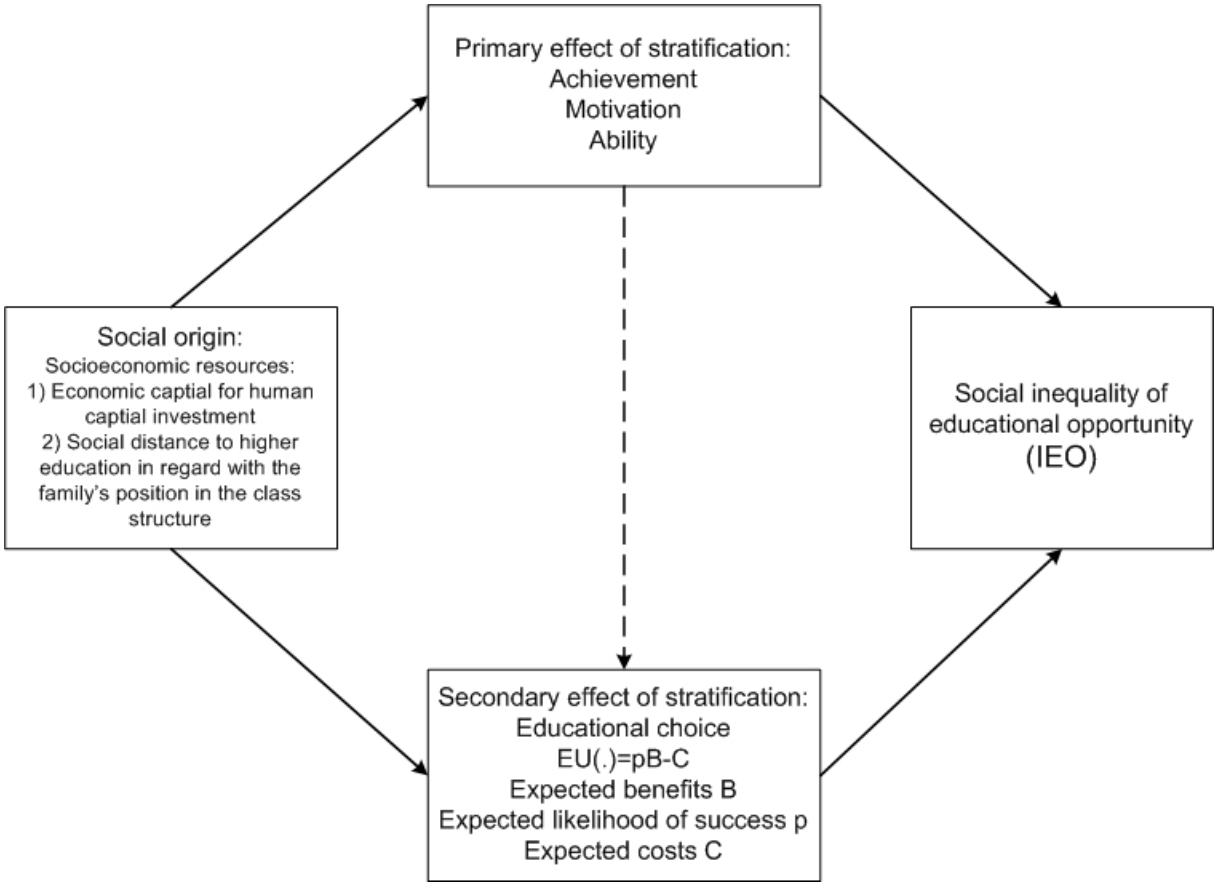
The institutional characteristics and their consequences for the individuals' educational career might constitute *one* of the *main* reasons for this persistent social inequality regarding the opportunities for university training. Such inequality is reinforced by the broad range of different educational choices, as well as the strong segmentation and pronounced stratification of the Swiss educational system, the rigid selection with regard to the 'tracking' at the transition from primary school to the secondary schools, and the marginal permeability among the secondary schools. When the impact of the institutional structure of the educational system on social selectivity is significant for the individuals' educational career and their educational outcome, however, two questions arise: Firstly, why are the offspring from lower social classes diverted from higher education? Secondly, what could be done to motivate them for tertiary education?

2. Theoretical Background

Meanwhile there are several competing theories which seek to detect the cause of social inequality of educational opportunity in the individuals' life course. However, we have realized already that the life-course hypothesis might be plausible, but this theoretical model is underspecified in order to provide full explanation of the genesis and reproduction of inequality of educational opportunity. Therefore, we refer to an explanatory model suggested by Boudon (1974) which has been often confirmed empirically. According to this rational choice approach, the inequality of educational opportunity is – considering the institutional structure of the educational system and the consequences of the institutionalized filtering and selection processes – resulting from the interaction of primary and secondary effect of stratification (see *Figure 1*).

The primary effect of stratification refers to the cultural inequality among the social classes. Due to the low socioeconomic resources and cultural capital of their parents the lower-class children are disadvantaged in their socialisation and education at home. In contrast to the children in the middle and upper classes they fail often in school due to low achievement. Because of privileged conditions of socialisation, education, and encouragement within the families, children from academic classes reach higher achievements, whereas children from lower classes undergo fewer cognitive developments and may achieve less during school years. Therefore, they are more likely to be excluded from access to higher education due to their low achievements.

Figure 1: IEO = Result of primary and secondary effects of stratification



Source: Becker and Lauterbach (2008: 15)

The secondary effect of stratification reflects the correlation between the families' class position in the social stratification and their choices to invest in their offspring's education. In accordance with both the "status position theory" suggested by Keller and Zavalloni (1964) and the prospect theory suggested by Kahneman and Tversky (1979), it is assumed that the families' motive of status maintenance across generations is an instrumental end of education

investments of their offspring (Stockè 2007). In particular, according to their risk aversion, the (upper) service classes are interested in avoiding status demotion due to suboptimal investment in education (Breen and Goldthorpe 1997). Therefore, the individuals (and their families) chose the most suitable and most advantageous education subjectively (for example a fairly certain or less risky and cost-efficient education) in order to maintain social status: The higher the individual's social status, the more it is interested in higher education. Due to their socioeconomic resources, upper social classes are more likely able to make such risky and costly investment in contrast to the lower classes which do not need to choose higher education for their offspring in order to maintain social status. Early educational decisions resulting in the attainment of eligibility for university training and the choice to attend university are specific strategies of members of the service classes to achieve status maintenance directly. If offspring from these classes would reject university education, they would have face definite and significant loss of social status. If the expected costs of university training seem too high or the likelihood of successful academic training seems too low, they decide in favour of the next lower educational course which would still entails the option of later entrance to first-tier or second-tier universities. This way, they are still given the opportunity to maintain their social status. However, for lower classes, in particular for the working classes or farmers, the university education is not necessary for status maintenance. In order to maintain their social status, they have to opt for apprenticeship at least.

By utilisation of this model, it is possible by keeping an individuals' achievement in mind to explain the diversion of low-class children from university as a (intended or unintended) consequence of an individuals' educational decision depending on their socioeconomic resources, their position in the social stratification, and their social distance to the higher education, respectively. If we proceed to assume that the diversion of lower-class children from universities is primarily the result of individual educational choices, we have to answer an additional question: *Which mechanisms of individual educational decision* are responsible for the fact that socially disadvantaged children are diverted from university training? According to Boudon (1974) or to Erikson and Jonsson (1996), individuals opt for higher education, if the subjectively expected utility of study at university *EU(S)* resulting from the subjectively *expected costs C* and *benefits B* (whereby the benefit will be weighted by the *subjectively expected likelihood of success p*) is higher than the subjectively expected utility of an non-academic vocational training *EU(V)*: $EU(S) = pB(S) - C(S) > EU(V) = pB(V) - C(V)$.

Since it is not possible to test theses assumptions with the TREE data, we exploit data from 1985 when high school graduates in Zürich has been interviewed about their future educational career (Beck und Kiener 1988). That means that they report their educational decision in favour of or against tertiary education. For the sake of simplicity, three levels of achievement (low, middle, and high) and three social classes basing on the highest educational level of the graduates' parents are distinguished: the academic class, the middle class and the less-educated class. The two last classes are categorized to the non-academic classes. While 87 percent of the upper-class graduates would be enrolled in university training, almost 77 percent of the eligible graduates from the middle and lower classes want to continue their education at the university. However, does the graduates' expected likelihood of success has an class-specific impact their decision in favour of university training? How does primary effect of social origin affect the secondary effect?

Table 4: Expected success and educational decision in favour of university training

Individuals from the:		*Academic class*	
demonstrate achievement:	*High*	*Middle*	*Low*
	27.5%	38.2%	34.3%
and would be enrolled in university training:	97.9%	94.0%	70.2%
Individuals from the:		*Other classes*	
demonstrate achievement:	*High*	*Middle*	*Low*
	22.2%	37.4%	40.4%
and would be enrolled in university training:	97.7%	86.2%	56.6%

Source: Studien- und Berufswahl der Zürcher Maturandinnen und Maturanden (1985; see Beck and Kiener, 1988) – own calculations

The first look on the interrelation of individuals' achievement and their social origin confirms that the distributions of achievement are rather similar for the offspring from the academic class and the high school graduates from the other social classes (see *Table 4*). However, there are remarkable disparities between the social classes in respect of the outflow from the achievement categories. This is true for the last both categories of achievement. If one take the graduates' achievement into account, it is obvious that upper-class graduates are more likely to attend at university training than the other graduates even when they provide moderate or poor achievement. This could be explained that the avoidance of status demotion exceeds the impact of the primary effect on the educational decision.

This plausible assumption will be tested by a simulation with real data (see Boudon 1974, 1979; Nash 2003; Müller-Benedict 2007; Becker 2009). Is it possible to increase the non-academic classes' attendance if the primary effect of stratification has been neutralized? Is there any increase of the graduates from the middle and lower classes in university training if they have the same distribution of achievement like the graduates from highly qualified

parents? In technical sense, the distribution of the achievement for the middle- and lower-class children is multiplied with the transition rate for the upper-class children observed for each of the achievement categories. When one neutralize the primary effect – 27.5% · 0,977 + 38.2% · 0.862 + 34.3% · 0.566 – 79.2 percent of the graduates stemming from the non-academic classes would attend at university training. This is an increase of 2.6 percent points. However, the inequality of educational opportunity (IEO) remains still remarkable in favour to the upper class.

What would happen if the secondary effect of stratification has been neutralized? If one take the achievement of the graduates from the non-academic classes into account, then – 22.2% · 0.979 + 37.4% · 0.94 + 40.4% · 0.702 – 85.2 percent of these graduate would continue their educational career at the university. The increase of their attendance comes to 8.6 percent points and result in substantial reduction of IEO. The previous assumption is confirmed empirically. This result teaches the educational policy that the neutralization of secondary effects would be the more effective programme in order to override IEO.

Table 5: Status attainment and educational choice of university training

Individuals from the:		*Academic class*	
expect high prestige by university training:	*High*	*Middle*	*Low*
	17.8%	50.6%	31.6%
and would be enrolled in university training:	96.7%	87.4%	79.2%
Individuals from the:		*Other classes*	
expect high prestige by university training:	*High*	*Middle*	*Low*
	13.8%	47.8%	38.4%
and would be enrolled in university training:	79.1%	82.0%	68.9%
Individuals from the:		*Academic class*	
expect high income by university training:	*High*	*Middle*	*Low*
	46.1%	41.1%	12.8%
and would be enrolled in university training:	92.4%	84.4%	72.7%
Individuals from the:		*Other classes*	
expect high income by university training:	*High*	*Middle*	*Low*
	41.2%	42.9%	15.9%
and would be enrolled in university training:	83.0%	72.6%	70.8%

Source: Studien- und Berufswahl der Zürcher Maturandinnen und Maturanden (1985; see Beck and Kiener, 1988) – own calculations

However, what should be done exactly? Would it be necessary to convince the middle-class graduates, and in particular the working-class graduates from the social or monetary benefits resulting from university training? Or is it more helpful to neutralize the higher costs expected by the non-academic classes? First of all, it is often assumed that the higher the social status, the higher the anticipated benefits associated with university training. The data confirms the assumptions: 97 percent of the upper-class children with high interest in status will attend at the university, but 79 percent of the non-academic-class children only. If the social disparity of the believe in the benefits has been neutralized – 17.8% · 0.791 + 50.6% · 0.82 + 31.6% ·

0.689 – 77.3 percent of the graduates from middle and working classes would attend at university training (see *Table 5*).

In order to reduce IEO, this strategy is rather ineffective. This is true in respect of income maximization, too. If income maximization become an incentive for the non-academic-class children — 46.1% · 0.83 + 41.1% · 0.726 + 12.8% · 0.708 – 77.2 percent of the graduates from middle and working classes would attend at university training (see *Table 5*). Informing the educationally disadvantaged graduates on the monetary returns of university training is also not effective. However, this result is somewhat inconsistent with the micro-economic human capital approach.

Table 6: Expected costs and educational choice of university training

Individuals from the:	*Academic class*			
expect cost of university training:	*Very Low*	*Rather Low*	*Rather High*	*Very High*
	58.4%	24.7%	14.0%	2.8%
and would be enrolled in university training:	85.9%	89.4%	89.6%	70.0%
Individuals from the:	*Other classes*			
expect cost of university training:	*Very Low*	*Rather Low*	*Rather High*	*Very High*
	44.8%	29.3%	19.8%	6.1%
and would be enrolled in university training:	90.2%	83.2%	81.2%	68.8%

Source: Studien- und Berufswahl der Zürcher Maturandinnen und Maturanden (1985; see Beck and Kiener, 1988) – own calculations

However, the neutralization of costs expected for the risky and long lasting university training is significantly effective and eliminate the IEO (see *Table 6*). If the cost pressure has been neutralized for the non-academic classes:

$$58.4\% \cdot 0.902 + 24.7\% \cdot 0.832 + 14.0\% \cdot 0.812 + 2.8\% \cdot 0.688 \approx 87 \text{ percent}$$

of the middle- and working-class graduates would attend at university training. Due to the increase of their enrolment of 9.9 percent points, IEO has been eliminated. Regarding this branching point, the result suggests again that the secondary effect of stratification is the crucial mechanism of the IEO-generating process. From the perspective of educational policy, the high tuition fees for becoming enrolled at one of the first-tier universities in Switzerland are counterproductive for elimination IEO. High tuition fees have a significant impact on the high-school graduates' decision diverting the non-academic-class children from tertiary education.

3. What could be done to motivate middle and lower classes for tertiary education?

Although these impressive results suggesting that the secondary effects of stratification are more likely to be responsible for the inequality of educational opportunity than primary

effects it has to be kept in mind that the high-school graduates are already a selective group who have survived in the educational system while many other talented individuals has been diverted from higher education already. As seen above, the middle- and working-class children are diverted early in their school career from the direct way to the higher education. From the perspective of Swiss educational policy, it has to be recognized that the diversion of the middle- and working-class children from higher education has to be considered in the logic of the educational career in the individuals' life course. Therefore, considered that anyone is interested in reducing the IEO, it has to be assumed that the early branching points have to be focussed by the policy. The first reason is that they show the greatest amount of social selectivity for the diversion from higher education. The second reason is that first transitions determine the opportunities of the following transitions. Early transitions are often irreversible. Therefore, in accordance with Mare (1981), the survival in the educational system and the educational attainment is analyzed as a process of successive educational transitions structured by educational systems in which primary and secondary effects of social origin are interrelated. Following Breen and Jonsson (2000), the path dependency of the educational transitions and reallocations in the educational career will be considered for each level in the educational systems by adjusting the risk sets.

What could be done at the first branching points that the talented pupils among them, even from less-educated parents, would attend at university training? The striking answer is given by Boudon (1974: 109) itself: "For the IEO to be eliminated (…) either a society must be unstratified or its school system must be completely undifferentiated. It is, of course, quite unlikely that any society will ever lack social strata altogether. It is also unlikely that a school system will be completely undifferentiated, in the sense that it would offer to all youngsters a common curriculum". If we share this argument that society rather than school is responsible for IEO then it could be a good idea that both the primary and the secondary effect have to be neutralized. On the one hand, the social disparities of individuals' achievement affected by their social origin have to be eliminated. On the other hand, the individuals' educational aspirations and decisions depending on their relative position in the social stratification have to be modified by adequate methods or programmes. Since in Switzerland school systems can be changed more easily than social stratification we have to develop ideas how the school systems could be improved that a maximum of talented individuals of each cohort attend at higher education. However, due to political competition of ideas on educational system, the resistance of parents, teachers, and politicians against reorganization of schools, in particular, the organizational inertia of the educational system has to be expected. Therefore, it would be

more likely efficient to modify the individuals' behaviour in respect of both the education of their children at home and the educational decisions for their offspring.

In spite of this, we have to recognize another problem. If we have a good idea to improve the educational opportunities, the following questions arise: Firstly, does our idea actually work? Secondly, how long should we wait for the evaluation of our idea? Since each school system is a social experiment affecting the faith of several generations, it would be helpful to receive empirically based evidence about the efficiency and effectiveness of educational policy. One interesting option has suggested by Boudon (1974) – namely the simulation of the consequences resulting from educational policy. In the following section we exert this option. In contrast to Boudon (1974), we use real data from the cross-sectional survey conducted by Moser and Rhyn (2000) as well as from TREE.

Neutralization of effects of social stratification at the first branching point

For the first transition in the educational career, the well-know facts for the transition from the primary school to the secondary school tracks has been found. More than 82 percent of the pupils from the academic classes attend at the secondary school with extended requirements or upper secondary school providing the opportunity for higher education at later age. Almost 73 percent of the middle-class children and 45 percent of the pupils from lower classes resp. 60.2 percent of the non-academic-class children attend at this secondary school tracks (see *Table 7*).

Table 7: Educational transition from primary school to secondary school (first threshold) by social origin (level of parental education)

	Low	*Middle*	*High*	*Total*
Lower secondary school (*Oberschule*)	5.1%	1.8%	3.2%	3.3%
Secondary school with basic requirements (*Realschule*)	49.7%	25.5%	14.6%	32.5%
Secondary school with extended requirements (*Sekundarschule*)	41.5%	60.5%	47.5%	51.1%
Upper secondary school (*Pregymnasial track*)	3.8%	12.2%	34.7%	13.1%
Total	100.0%	100.0%	100.0%	100.0%
N	451	542	219	1,212

Source: Moser and Rhyn (2000) – own calculations

In particular, in contrast to the pupils from other social classes, the upper-class children have 3 times better chances to attend at the secondary school with extended requirements or pregymnasial track. If the social origin would have no impact on the individuals' transition – that means that the educational opportunity is statistically independent from the social origin –

366 of 1,212 pupils (30.2 percent of all individuals) have to discard their actual transition. In regard to the concept of statistical independence, this amount of reallocation reflects the total amount of IEO.

In order to disentangle the primary effect from the secondary effect we have to consider the distribution of the individuals' achievement (measured by grade point average of German and mathematics) across their social origin. The upper-class children have 7.7 times resp. 2.4 times better chances to achieve a higher grade point average than the lower-class children resp. the middle-class children (see *Table 8*). The impact of social origin on individuals' achievement is evident and we could expect that the educational opportunities are structured by primary effects of stratification.

Table 8: Achievement (grade point average) by social origin

	Low	Middle	High	Total
High	3.5%	10.5%	21.9%	10.0%
Middle	41.0%	59.0%	55.3%	51.7%
Low	55.4%	30.4%	22.8%	38.4%
Total	100.0%	100.0%	100.0%	100.0%
N	451	542	219	1212

Source: Moser and Rhyn (2000) – own calculations

In respect to high or intermediate achievement and even poor achievement, the children from academic class are indeed more likely to be enrolled at the upper secondary schools than the pupils from the other classes (see *Table 9*). If the achievement would be independent of the social origin, 36 pupils have to discard their transition. The proportion of these reallocations (36) to the total amount of reallocation (366) is 11 percent; this is the amount of primary effect of stratification while the proportion of the secondary effect on the total IEO comes to 89 percent.

Table 9: Educational choice (Upper secondary school vs. other tracks) by achievement (GPA) and social origin

Social origin (parental education)	Educational choice	Achievement		
		High	Middle	Low
Tertiary education	Other	0,0%	1,7%	74,0%
	Sec./Gymnasium	100,0%	98,3%	26,0%
	Total	100.0%	100.0%	100.0%
Non-tertiary education	Other	1,4%	4,4%	89,6%
	Sec./Gymnasium	98,6%	95,6%	10,4%
	Total	100.0%	100.0%	100.0%

Source: Moser und Rhyn (2000) – own calculations

However, in respect of the attendance of the middle- or lower-class children, it has to be clarified empirically if the neutralization of the secondary effects contributes more likely to

the decline of IEO than the efforts in order to diminish primary effects. If the primary effect of social origin has been neutralized

$$21.9\% \cdot 0.986 + 55.3\% \cdot 0.956 + 22.8\% \cdot 0.104 = 76.8 \text{ percent}$$

of the children of non-academic parents rather than 60.2 percent of them would attend at the upper secondary school preparing them for higher education (see *Table 10*). The increase of 16.6 percent points result in significantly reduced, but not totally eliminated IEO.

Table 10: Achievement and educational choice by social origin

		Academic class	
demonstrate achievement:	*High*	*Middle*	*Low*
	21.9%	55.3%	22.8%
and are enrolled in upper secondary school:	100,0%	98,3%	26,0%
Individuals from the:		*Non-academic classes*	
demonstrate achievement:	*High*	*Middle*	*Low*
	7.4%	50.9%	41.8%
and are enrolled in upper secondary school:	98,6%	95,6%	10,4%

Source: Moser and Rhyn (2000) – own calculations

The neutralization of secondary effect of social origin is somewhat less effective because $7.4\% \cdot 1.0 + 50.9\% \cdot 0.983 + 41.8\% \cdot 0.26 = 68.3$ percent of the middle- and working-class children would be enrolled in upper secondary school. The increase of transition to upper secondary school comes to 8.2 percent points. In order to reduce IEO, these findings suggest that the neutralization of secondary effects is necessary but not sufficiently. In order to motivate the non-academic parents of pupils talented for higher education, the neutralization of primary effects at the first branching point would be more effective. Since the both effects of neutralization are very similar, a combined strategy might be rational for the educational policy.

From the perspective of contemporary educational policy in Switzerland, this result confirms the efforts in the expansion of preschool education (e.g. Kindergarten) or full-time schools with an all-day curriculum as well as the professionalization of the training of teachers and the improvement of teaching. From evaluative study in Germany we know that preschool education has some positive effects for socially disadvantaged children in respect of opportunity to attend at upper secondary school tracks. In favour to farmer or working-class children, empirical investigations in the USA suggest that full-time schools contribute significantly to the decrease of primary effects of social origin (e.g. Entwisle et al. 1997). In our case, we have to keep in mind for this early transition that we have considered only one of the several cantons in the German-speaking part of Switzerland. Therefore, it would be necessary to replicate this analysis for the other cantons.

The transitions at the following branching points

On the base of the TREE data, the procedure demonstrated above has been repeated for the following branching points. Because one could become eligible for the study in the tertiary education via the Gymnasium or via advanced vocational training, the second branching point – staying at Gymnasium vs. starting vocational training – will not be considered yet (see *Table 11*). While the amount for the IEO remains relatively stable at the later stages of the individuals' educational career, there is an increase of primary effects on the one hand and a decline of secondary effects on the other hand. This finding contradicts both the life-course hypothesis and the differential selection hypothesis that secondary effects become more important from branching point to branching point while primary effects would become negligible. Like in a quasi-tournament, it seems to be that at each branching point the risk set will be selected by the mechanisms of the primary and the secondary effects of social origin.

Table 11: Neutralization of primary and secondary effects of stratification at several branching points

	P-SER/Gym		VET-TE	VET-AU
Branching points	*1*	*3*	*4*	*4*
Actual attendance				
Other classes	60.2%	29.0%	53.2%	26.8%
Academic class	82.2%	52.0%	70.8%	48.9%
Odds ratios: academic vs. other classes	3.0	2.7	2.1	2.6
Amount of inequality				
IEO	30.2%	21.7%	17.8%	21.9%
Primary effect	11.0%	25.6%	35.9%	30.2%
Secondary effect	89.0%	74.4%	64.1%	69.8%
Effect of Neutralization				
Primary effect	16.6%	6.5%	0.0%	0.5%
Secondary effect	8.1%	27.9%	17.3%	22.4%
Modified attendance of other classes				
Neutralized secondary effect	68.3%	50.9%	70.5%	49.2%
Odds ratios: actual (academic class) vs. modified (other classes)	2.1	1.1	1.0	1.0
Neutralized of primary effect	76.8%	29.5%	53.0%	27.3%
Odds ratios: actual (academic class) vs. modified (other classes)	1.4	2.6	2.2	2.5

* $p \leq 0.05$

Legend:
P-SER/Gym: Primary-School to Secondary school with extended requirements resp. Gymnasium vs. other secondary school tracks
C-Gym: Continued schooling in Gymnasium vs. other training; Matura: Attainment of higher education entrance certificate vs. other certificates
VET-TE: Vocational education and training vs. enrolment in tertiary education (universities and Fachhochschulen)
VET-AU: Vocational education and training and Fachhochschulen vs. enrolment in academic training at academic universities
Sources: Moser and Rhyn (2000), and TREE (Waves 1-6) – own calculations

However, the increasing significance of primary effect for the transition to higher education is also inconsistent with the MMI thesis by Raftery and Hout (1983); but it might be somewhat

in accordance with the conflict-theoretical approach by Bourdieu and Passeron (1977). The authors claim in their reproduction theory that the so-called self elimination of the lower classes from tertiary education depends on primary effects of stratification. However, the primary effect does not become the crucial mechanism for IEO at all. In Switzerland, the secondary effect is dominant at the access to tertiary education.

How does the neutralization of social origin work? On the one hand, it is empirically documented that the neutralization of primary effect becomes ineffective after the first early branching point. In contrast to the neutralization of primary effects of stratification, the neutralization of secondary effect result in the non-academic classes' increasing attendance at higher education and, in particular, in the elimination of IEO at the same time. The neutralization of secondary effect after the first branching point is very effective that there are no social disparities for the access to continued schooling and higher education. In order to eliminate the IEO at later stages of the individuals' educational career, the neutralization of primary effects is rather sufficient while the neutralization of the secondary effects is significantly necessary.

Some concluding remarks

What would result on the aggregate level of inequality of educational opportunity when secondary effects are neutralized at each of the branching points? For the increase of a birth cohort's attendance at higher education the neutralization of social origin at the first branching points is rather ineffective, and it is not significantly necessary at the second branching point. The increase of the permeability after the compulsory secondary school and the neutralization of social origin for the next two branching points – namely the matriculation and the transition to tertiary education building the so-called "bottleneck" for the access to higher education – contribute to the increasing attendance at the both types of universities. If one take these contemporary structures and institutional rules of the Swiss educational system into account and neutralize the effect of social origin – in particular, the primary effect at the first transition and the secondary effects for the third and fourth branching point – for the talented individuals' educational career ($0.768 \cdot 0.509 \cdot 0.705 \cdot 100\% =$) 28 percent rather than 20.5 percent of the talented individuals in a cohort would be enrolled in the tertiary education (Fachhochschule and university). If the early first branching point – the most selective and decisive transition in the individuals' educational career – will be abolished and the children from the lower and the middle classes would be motivated to attain the higher education qualification entrance as well as to start university training ($0.509 \cdot 0.705 \cdot 100\% =$) 36

percent of a cohort would be enrolled in higher education at universities. This reform of the Swiss educational system could have positive effects for the academic universities, in particular, considered that the low permeability of the "bottleneck" at the third and fourth branching points (continuation of schooling on Gymnasium and receiving the Matura on the direct way) would be expanded significantly. If the graduates who have attained the *Berufsmatur* already would get the entitlement to start their continued training in an academic university, e.g. on some selected fields of study, then (0.509 · 0.492 · 100% =) 25 percent of a cohort could attain the university degree rather than 16 percent per cohort.

These latter results have four implications at least. Firstly, Switzerland would meet the average rate of academics of the OECD countries. Secondly, the critics of the OECD against the low rate of freshmen as well as the under-average output of academics would be obsolete. Thirdly, the pool of talented but unattended individuals from middle and working classes per cohort will be exhausted more efficiently. Fourthly, an upgrading of the educational structure of the Swiss population would occur including all the advantages this process of educational expansion would have for the economy, the social welfare, and the democracy.

4. Conclusion

Finally, I wish to make four general conclusions. First of all, the potential of the TREE data set – a rich data set free for the scientific community – is excellent for the fundamental research, but also for the educational policy. From the perspective of sociology of education, this data set is the best one when researchers are interested in processes and mechanisms in the individuals' educational career generating the social structure of life courses and the educational structure of the population. I hope that I have demonstrated the potential of the longitudinal data in order to develop socially relevant finding which could be interesting for both the policy implementation and the evaluation of programmes.

However, and this is the second point, the capability of the TREE data is in some respects limited. There is no information on the individuals' previous educational career before they got 15 years old, on their schooling, and on the preconditions of their enrolment to the primary school. Furthermore, due to the single cohort panel design of TREE it takes a long waiting time when one is interested to analyze the individuals' educational attainment and benefits of their human capital investments. Finally, it is not possible to isolate the impact of societal change or welfare policy on the individuals' educational attainment and labour force participation if several birth cohorts are not compared.

This limitation, and that is the third point, is serious since it can not be compensated by other surveys such as PISA, the Swiss household panel, and the official statistics. In Switzerland, there is a tendency that huge cemeteries of survey in many of the Swiss cantons are produced while the data are often not available to the scientific community.

Therefore, so the fourth and final point, it is necessary that a Swiss National Educational Panel Survey (SNEPS) has to be established similar to the German NEPS-model. In Switzerland, the time is actually ripe for such an enterprise.

References

Arum, Richard, Adam Gomaran, and Yossi Shavit, 2007: More Inclusion Than Diversion: Expansion, Differentiation, and Market Structure in Higher Education. pp. 1-35 in: Yossi Shavit, Richard Arum, and Adam Gomoran (eds.): Stratification in Higher Education. Stanford: Stanford University Press.

Beck, Peter and Urs Kiener, 1988: Studien- und Berufswahl der Zürcher Maturanden. Vorstellungen über Ausbildung, Beruf, Gesellschaft. Ein Arbeitsbericht. Studien- und Berufsberatung des Kantons Zürich. Zürich: unpublished manuscript.

Becker, Rolf und Anna Etta Hecken, 2009: Higher Education or Vocational Training? An Empirical Test of the Rational Action Model of Educational Choices Suggested by Breen and Goldthorpe (1997) and Esser (1999). Acta Sociologica 52: 25-45.

Becker, Rolf und Anna Etta Hecken, 2009a: Why are working-class children diverted from universities? European Sociological Review 25: 233-250.

Becker, Rolf und Wolfgang Lauterbach, 2008: Bildung als Privileg - Ursachen, Mechanismen, Prozesse und Wirkungen. pp. 11-45 in: Rolf Becker und Wolfgang Lauterbach (Hg.), Bildung als Privileg. Theoretische Erklärungen und empirische Befunde zu den Ursachen der Bildungsungleichheiten. Wiesbaden: VS Verlag für Sozialwissenschaften.

Becker, Rolf, 2009: Wie können „bildungsferne“ Gruppen für ein Hochschulstudium gewonnen werden? Eine empirische Simulation mit Implikationen für die Steuerung des Bildungswesens (What could be done to motivate the working classes for university education? An empirical simulation with implications for educational policies). Forthcoming in: Kölner Zeitschrift für Soziologie und Sozialpsychologie 61 (4).

Blossfeld, Hans-Peter und Yossi Shavit, 1993: Persisting Barriers: Changes in Educational Opportunities in Thirteen Countrie. pp. 1-23 in: Hans-Peter Blossfeld und Yossi Shavit (Hg.), Persistent Inequality. Boulder: Westview.

Boudon, Raymond, 1974: Education, Opportunity, and Social Inequality. New York: Wiley.

Boudon, Raymond, 1979: Widersprüche sozialen Handelns. Darmstadt: Luchterhand.

Bourdieu and Passeron, 1977: Reproduction in Education, Society and Culture. London: Sage.

Breen, Richard, und Jan O. Jonsson, 2000: Analyzing Educational Careers: A Multinomial Transition Model. American Sociological Review 65: 754-772.

Breen, Richard, und Jan O. Jonsson, 2005: Inequality of Opportunity in Comparative Perspective: Recent Research on Educational Attainment and Social Mobility. Annual Review of Sociology 31: 223-244.

Breen, Richard, und John H. Goldthorpe, 1997: Explaining Educational Differentials. Towards A Formal Rational Action Theory. Rationality and Society 9: 275-305.

Buchmann, Marlis and Mariah Charles, 1993: The Lifelong Shadow: Social Origins and Educational Opportunities in Switzerland. pp. 177-192 in: Yossi Shavit and Hans-Peter Blossfeld (eds.): Persistent Inequalities. Changing Educational Stratification in Thirteen Countries. Boulder, Co.: West View Press.

Buchmann, Marlis, Stefan Sacchi, Markus Lamprecht, and Hanspeter Stamm, 2007: Tertiary Education Expansion and Social Inequality in Switzerland. pp. 321-348 in: Yossi Shavit, Richard Arum, and Adam Gomoran (eds.): Stratification in Higher Education. Stanford: Stanford University Press.

Erikson, Robert, und Jan O. Jonsson, 1996: Explaining Class Inequality in Education: The Swedish Test Case. S. 1-63 in: Robert Erikson und Jan O. Jonsson (Hg.): Can Education Be Equalized? Boulder: Westview Press.

Kahneman, Daniel, und Amos Tversky, 1979: Prospect Theory. An Analysis of Decision under Risk. Econometrica 39: 342-350.

Keller, Suzanne, und Marisa Zavalloni, 1964: Ambition and Social Class: A Respecification. Social Forces 43: 58-70.

Mare, Robert, 1981: Change and Stability in Educational Stratification. American Sociological Review 46: 72-87.

Mayer, Karl Ulrich, Walter Müller und Reinhard Pollak, 2007: Germany: Institutional Change and Inequalities of Access in Higher Education. S. 240-265 in: Yossi Shavit, Richard Arum and Adam Gamoran (Hg.): Stratification in Higher Education. Stanford: Stanford University Press.

Moser Urs und Heinz Rhyn, 2000: Lernerfolg in der Primarschule. Aarau: Sauerländer.

Müller, Walter, 1994: Bildung und soziale Plazierung in Deutschland, England und Frankreich. S. 115-134 in: Hansgert Peisert und Wolfgang Zapf (Hrsg.): Gesellschaft, Demokratie und Lebenschancen. Frankfurt am Main: DVA.

Müller, Walter, und Reinhard Pollak, 2007: Weshalb gibt es so wenige Arbeiterkinder in Deutschlands Universitäten? pp. 303-342 in: Rolf Becker und Wolfgang Lauterbach (eds.): Bildung als Privileg. Wiesbaden: VS Verlag für Sozialwissenschaften (zweite aktualisierte Auflage).

Müller, Walter, und Wolfgang Karle, 1993: Social Selection in Educational Systems in Europe. European Sociological Review 9: 1-23.

Müller-Benedict, Volker, 2007: Wodurch kann die soziale Ungleichheit des Schulerfolgs am stärksten verringert werden? Kölner Zeitschrift für Soziologie und Sozialpsychologie 59: 615-639.

Nash, Roy, 2003: Inequality/difference in education: is a real explanation of primary and secondary effects possible? British Journal of Sociology 54: 433-451.

OECD 2007: Education at A Glance 2007. Briefing Notes: Germany (18.09.2007). URL: www.oecd.org/dataoecd/22/28/39317467.pdf (last access: 11th of January 2008).

Raftery, Adrian E., und Michael Hout, 1993: Maximally Maintained Inequality: Expansion, Reform, and Opportunity in Irish Education, 1921-75. Sociology of Education 66: 41-62.

Stockè, Volker, 2007: Explaining Educational Decision and Effects of Families' Social Class Position: An Empirical Test of the Breen-Goldthorpe Model of Educational Attainment. European Sociological Review 23: 505-519.

TREE (ed.), 2008: Projekt-Dokumentation 2000-2008. Bern/Basel: TREE.

Multiple imputation of missing TREE data

André Berchtold (1,2), Mélanie Cicognani (1), Joan-Carles Suris (2)

(1) Institut de Mathématiques Appliquées, University of Lausanne, Switzerland, (2) Groupe de Recherche sur la Santé des Adolescents, Lausanne University Hospital & University of Lausanne, Switzerland

Introduction

As in many surveys, there are missing data in the TREE database. Whatever the reason for non-response, the resulting data are more difficult to work with than fully observed data. The idea is then to apply some kind of estimation to the missing data in order to have a completed dataset to work with. Many approaches are described in the literature, starting from very simple ones (listwise deletion of all cases with at least one missing data, replacement of the missing data by the mean of observed values) to modern model-based methods (Allison 2001; Little & Rubin 2002; Graham 2009).

The TREE project being inscribed in a longitudinal framework, data from each wave are certainly not independent. It is then necessary to take the possible relations into account in order to provide estimated values of missing data coherent not only with respect to other variables of the same wave (some of them including also missing data), but also from one wave to another. We believe that the correct handling of missing information is a key point in the proper use of the TREE data, the final goal being to obtain more useful statistical results. The project presented here should then prove interesting to any user of the TREE data.

Methods

When each missing data is replaced by a single estimated value, the variance of statistical parameters computed from the completed dataset are generally underestimated, what leads to incorrect confidence intervals and p-values. Regardless of the imputation method, the cause of this problem, as noted by Schafer & Olsen (1998), is that replacing missing data by only one particular estimated value does not take into account the inherent variability of missing data. One of the best approach to overcome this issue is now the multiple imputation procedure proposed by Rubin (1987). This method is designed to respect the variability of data. Its principle is to independently generate not one, but *m* completed datasets $D_1,\ldots,D_m$. The statistics of interest are then computed on the *m* datasets and the results are combined in a straightforward manner into a single final statistic. It has been shown that the number of completed datasets has not to be large, very good results being achieved with *m* as low as 5.

We plan to implement the following approach: For each variable with missing data, a linear predictive model will be defined using other available variables of the TREE database as predictors. These models will be defined independently for each wave, the principle being to use only predictors from the same wave or from previous waves. For instance, if we want to impute values for a variable measured in 2001, then predictors will be taken in the 2001 dataset only. For an imputed variable measured in 2002, predictors will come from 2001 and 2002 only, and so on. Even if the use of predictors from waves posterior to the one of the imputed variable could improve the quality of the imputation, the choice of not doing so has two main advantages: the causality of the data is respected, and when data for the 2010 wave will become available, it will be straightforward to reapply the same method on the new missing data, without having to change anything in the imputed data of previous waves. Chained equations will then be used to generate as many completed datasets as necessary.

Multiple imputation of missing TREE data

André Berchtold(1,2), Mélanie Cicognani(1)
& Joan-Carles Suris(2)

(1) Institut de Mathématiques Appliquées, University of Lausanne
(2) Groupe de recherche sur la santé des adolescents (GRSA),
CHUV & University of Lausanne

September 11, 2009

grs [a]

UNIL | Université de Lausanne

Outline

1 MISSING DATA IN TREE

2 HANDLING OF MISSING DATA

3 MULTIPLE IMPUTATION FOR THE TREE DATA

4 RESULTS

5 CONCLUSION

Definition

Observations which were planned, but are finally missing in the database.

Causes

- Subjects leaving the survey at some point (attrition).
- Non-response to some questions.
- Questions not asked to some subjects at wave t.
- Questions removed from the wave t questionnaire.
- ...

Consequences

- Different number of data at each wave and for each variable.
- Less data to compute statistics $\Rightarrow$ less power.
- Possible underestimation of the variability of results.
- Impossibility to follow the individual trajectories of all subjects from wave 1 to wave 7.
- ...

Trajectories of substance use

- We are interested in studying the consumption of cannabis and tobacco from wave 1 to wave 7.
- Objectives :
  1. To study the distribution of consumption wave by wave.
  2. To follow individual trajectories in order to identify the most common ones.
- Statistical tools used for the second objective are not always compatible with missing data (Markov chains for instance).
- We want to work with as many complete sequences as possible.

Number of available sequences

- Only 1131 complete sequences (T1-T7) are available for the analysis of cannabis and tobacco consumption in the original TREE data (unweighted data).

Example : Consumption of cannabis

Wave	1	2	3	4	5	6	7
Subject A	No	No	Yes	Yes	Yes	Yes	Yes
Subject B	Yes	Yes	Yes	No	No	?	No
Subject C	Yes	No	?	Yes	?	?	?
Subject D	?	No	No	No	No	No	No

Complete case analysis

- Only available data are analyzed. Missing data are simply discarded.
- If computations are performed separately for each wave, the number of data points (and the concerned subjects) is different in each wave.
  $\Rightarrow$ How to accurately compare results ?
- Only the 1131 complete sequences can be used for trajectory analysis.

Simple imputation

- Each missing data is replaced by a single imputed value.
- Many mechanisms are available for the imputation (mean, most frequent value, hot deck, regression model, ...).
- Problems :
  1. The inherent variability of the non-observed data is often underestimated by the imputed values.
  2. Results can also be systematically biaised.

Principle

- The principle of multiple imputation (MI) is to replace each missing value not by one, but by $m > 1$ imputed values (Rubin, 1987).
- The advantage is to preserve the variability of the data.
- Accurate results can be obtained with m as small as 5 or 10, but we used 20 here.
- In practice, several datasets (replications) of imputed values are created. Statistical models are then computed independently on each dataset, and these intermediary results are combined into a final result.

MI estimator

- Let θ be a parameter to be estimated.
- From each of the m replicated datasets, we obtain an estimation $\hat{\theta}_i$.
- The MI estimator of θ is then

$$\hat{\theta}_{MI} = \frac{\sum_{i=1}^{m} \hat{\theta}_i}{m}$$

- The variance of the MI estimator is obtained as a combination of the variance of each $\hat{\theta}_i$ and the variance between the $\hat{\theta}_i$. If $\hat{V}_i$ is the variance of $\hat{\theta}_i$, then

$$\hat{V}_{MI} = \frac{\sum_{i=1}^{m} \hat{V}_i}{m} + \left(1 + \frac{1}{m}\right) \frac{1}{m-1} \sum_{i=1}^{m} (\hat{\theta}_i - \hat{\theta}_{MI})^2$$

Principle

- Chained equations is an imputation principle due to Van Buuren, Boshuizen & Knook (1999) :
  1. Regression models are defined to explain a set of variables with missing values.
  2. Missing values are first replaced by random values.
  3. Each regression model is then used in turn to impute missing values.
  4. The algorithm iterates several times through all regression models, missing values being each time replaced by the value imputed during the preceding iteration.
  5. Imputations of the last iteration are retained as final values.
- In practice, we used 10 iterations (default for the ICE command in Stata).
- Repeating the whole process m times leads to m different imputed datasets.

Working with longitudinal data

- To preserve the longitudinal features of TREE, we apply the following rules :
  - A linear predictive model is defined for each variable with missing data.
  - For each wave, the predictors are the same variable observed in the preceding waves and a set of covariates taken either from PISA or from the preceding waves of TREE.
  - No imputation is made at T1 (we don't have any preceding observation of the same variable).
  - When two or more than two successive observations are missing, only the first one is imputed (to impute at wave t, we must have at least the information at t-1).
- These rules should also help the imputation of missing data when the last wave (2010) will be available

Example

Wave	1	2	3	4	5	6	7
Subject A	No	No	Yes	Yes	Yes	Yes	Yes
Subject B	Yes	Yes	Yes	No	No	?	No
Subject C	Yes	No	?	Yes	?	?	?
Subject D	?	No	No	No	No	No	No

Equations

- Variables with missing values to impute : t1drug4, t2drug4, ..., t7drug4
- Multinomial regressions :
  - t2drug4 = f(t1drug4, covariates)
  - t3drug4 = f(t1drug4, t2drug4, covariates)
  - t4drug4 = f(t1drug4, t2drug4, t3drug4, covariates)
  - ...
  - t7drug4 = f(t1drug4, t2drug4, ..., t6drug4, covariates)
- Regressions are estimated one after another.
- Covariates cannot have missing data.
- No imputation for t1drug4, because it would rely on covariates only.

Covariates

- Sex
- Age in months at the time of PISA
- Linguistic region at the time of PISA
- Country of birth (Switzerland / other)
- Family wealth at the time of PISA
- School track (pre-gymnasial / extended requirements / basic requirements / no selection)

Number of data regarding substance use per subject

	Before imputation		After imputation	
Nb obs	Freq	Percent	Freq	Percent
0	576	9.08	576	9.08
1	493	7.77	11	0.17
2	651	10.26	494	7.79
3	588	9.27	498	7.85
4	660	10.41	479	7.55
5	753	11.87	626	9.87
6	1491	23.51	670	10.56
7	**1131**	**17.83**	**2989**	**47.12**
	6343	100.00	6343	100.00

Use of Tobacco and Cannabis

- We consider 4 groups of substance users :
  - Use of cannabis only (Can)
  - Simultaneous use of cannabis and tobacco (Can+Tob)
  - Use of tobacco only (Tob)
  - Use of neither cannabis nor tobacco (None)

All available data at T1 and T7

- Use of the original wt7_kal TREE weights for wave 7.

	T1		T7	
	Freq	Percent	Freq	Percent
Can	118.7	**2.32**	22.91	0.89
Tob	941.8	**18.44**	314.6	12.27
Can+Tob	1352	**26.47**	948.7	37.00
None	2696	**52.77**	1278	49.84
	5108	100.00	2564	100.00

Imputed data available continuously from T1 to T7

- Use of the original wt7_kal TREE weights for wave 7.

	T1		T7	
	Freq	Percent	Freq	Percent
Can	50.43	**2.58**	29.33	1.50
Tob	310.86	**15.91**	218.37	11.17
Can+Tob	409.12	**20.94**	695.45	35.59
None	1183.70	**60.57**	1010.97	51.74
	1954.12	100.00	1954.12	100.00

Imputed data available continuously from T1 to T7

- Use of adjusted weights (post-stratification by substance use group and by sex) for wave 7 :

	T1		T7	
	Freq	Percent	Freq	Percent
Can	45.40	**2.32**	32.13	1.64
Tob	360.35	**18.44**	254.26	13.01
Can+Tob	517.27	**26.47**	745.32	38.14
None	1031.26	**52.77**	922.57	47.21
	1954.28	100.00	1954.28	100.00

Three levels of cannabis consumption

- We consider 3 levels of cannabis consumption :
  - None
  - Moderate : less that three times per week
  - High : at least three times per week

Levels of cannabis consumption at T7

- No imputation, data available from T1 to T7, adjusted weights.

	Proportion	Standard error	95% CI	
None	.8759	.0209	.8349	.9168
Moderate	.0804	.0138	.0534	.1075
High	.0437	.0173	.0097	.0777

- Imputed data available from T1 to T7, adjusted weights.

	Proportion	Standard error	95% CI	
None	.8535	.0138	.8264	.8805
Moderate	.0904	.0110	.0687	.1121
High	.0561	.0106	.0354	.0769

To summarize

- Missing data are a problem for all statistical analyses.
- A correct handling of missing data leads to an increase in the number of usable observations and in more accurate results.
- Multiple imputation is now a standard way to handle missing data.
- Softwares like Stata or R can be used to both generate MI datasets and perform statistical analyses.

Young Workers, Globalization and the Labor Market: Comparing Early Working Life in Eleven Countries

Hans-Peter Blossfeld, Sandra Buchholz
Bamberg University, Germany

Underpinned by the fact that the globalization process and the subsequent increased level of market uncertainty have paved the way for employment flexibility in modern societies, we examine the labor market chances of young adults in the US and in ten European societies over the past three decades. As young adults represent a very vulnerable labor market group, flexible and insecure employment tends to be pronounced especially at labor market entry. By drawing back on the empirical results of the international comparative research project *flex*CAREER (located at Bamberg University and Göttingen University in Germany) we investigate which groups of young adults are especially affected by increasing employment insecurities. Extending our analysis to the early career phase, it will be discussed whether flexible employment relationships in younger cohorts are a temporary phenomenon at the very beginning of people's careers, or if the labor markets of modern societies are currently fundamentally changing because flexible employment relationships are permanently succeeding in the labor market with the entry of new cohorts.

As our longitudinal results show, there are clear signs in all countries that the school-to-work transition has become more precarious and insecure since the beginning of the 1980s. However, the analyses also show that (so far) there is no fundamental regime change with the entering of new cohorts, too, as many young still can establish on the labor market (although later and after a more turbulent time). With regard to social inequality structures, human capital and educational resources still prove to be strong predictors for individual labor market chances. In several countries, we can even observe a strengthening of social inequalities across time as these factors increasingly determine young adults' level of protection against increased labor market uncertainty in times of globalization.

For further information see:

flexCAREER: http://www.flexcareer.de/papers/no1.pdf

NEPS (National Educational Panel Study):
http://www.uni-bamberg.de/fileadmin/inbil/Abbildungen/NEPS_Projektvorstellung_engl.pdf

Fifteen Years of Transitions: A longitudinal study of the educational and professional transitions of young people at the completion of their compulsory education

Angela Cattaneo, Mario Donati

Ufficio studi e richerche, Viale S. Franscini 32, Bellinzona – Tessin, Switzerland

Abstract

The goal of this research, which was carried out in Ticino starting in 1992, was to obtain through longitudinal analysis a both detailed and comprehensive picture of the various educational and career pathways pursued by young people after they have completed compulsory education at age fifteen (9^{th} grade).

At first, the focus was on determining the influence of different factors in young people's decision-making process in regard to post-compulsory education and training, as well as on establishing a typology of educational pathways (in terms of duration, failure/success, quality, (dis-)continuity, dropout, etc.). Throughout the study, further questions arose, such as discrimination based on social background and gender or intergenerational transfer of education. Due to its richness, this kind of research continues to generate new research questions.

The longitudinal approach (especially when extended over a long period) has the advantage, thanks to a sort of analytical double-vision, to simultaneously follow up the changes in the individual educational strategies and the developments and transformations in the educational system as a whole, while taking into account its intersections with the working world.

1. Theoretical and methodological aspects

The goal of this research, which was carried out in Ticino starting in 1992, was to obtain through longitudinal analysis a both detailed and comprehensive picture of the various educational and career pathways pursued by young people after they have completed compulsory education at age fifteen (9^{th} grade).

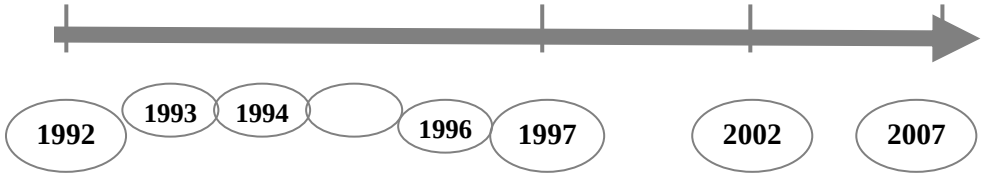
At first, the focus was on determining the influence of different factors in young people's decision-making process in regard to post-compulsory education and training, as well as on establishing a typology of educational pathways (in terms of duration, failure/success, quality, (dis-)continuity, dropout, etc.). Throughout the study, further questions arose, such as discrimination based on social background and gender or intergenerational transfer of education. Due to its richness, this kind of research continues to generate new research questions.

The longitudinal approach (especially when extended over a long period) has the advantage, thanks to a sort of analytical double-vision, to simultaneously follow up the changes in the individual educational strategies and the developments and transformations in the educational system as a whole, while taking into account its intersections with the working world.

In our opinion, the interest and relevance of our study (see Table 1.1) arise from a variety of parameters: time extension (15 years, from 1992 to 2007), frequency of data gathering (annually for the first five years, and every five years after that), size of the cohort at the beginning of the study (half of a 9^{th} grade school leavers' cohort), and relatively low level of sample attrition (40 % after 15 years).

At the same time, our study has some limitations, the most obvious being that it looks at young people only in Ticino, with all the linguistic and cultural specificities that this entails.

Table 1.1: Study design of the longitudinal study carried out in Ticino between 1992 and 2007



	n=1471					**n=1159**	**n=960**	**n=884**
✶Questionnaire	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
✶Aptitude test	AT							
✶Academic success	AS1	AS2	AS3	AS4	AS5	AS6		
✶Telephonic follow-up							TF	TF
✶CPI Project[1]:								
Language skill evaluation								X
Individual interviews								X

This longitudinal study is not the first of its kind in Switzerland.[2] Similar studies were conducted in different cantons, but were limited to analysis of post-educational career choices over a maximum period of one to two years. While the Ticino study was beginning, the *Centre d'études et de recherches sur les qualifications* (CEREQ)[3] in France embarked on its "Generation 92" study, analyzing a sample of 27,000 young people with an average age of 21 about their first employment. In Italy, the *Istituto ricerche politiche e socioeconomiche* (IARD) has published research reports on young people (aged 15 to 34) every four years since 1984, principally focusing on education and employment.

The relevance of this approach was stated by experts from the OECD, who wrote after their visit to Switzerland:

> *"In examining the transitions in Ticino, we were able to see the great interest of longitudinal studies. This kind of initiative seems particularly opportune at a time when the various tracking options in Secondary II education are being reassessed; a longitudinal study would permit an appropriate examination of the value accorded to the different educational paths in the job market."*
> (OECD, 1999, 53-54)

The experts' recommendation found immediate implementation in the national study *Transitions from Education to Employment* (TREE)[4] which, starting in 2000, has been following up more than 6,000 students from the Swiss PISA 2000 sample (Programme for International Student Assessment) who had just completed their compulsory education.

In the 1990s, in Switzerland as elsewhere, researchers and educators turned their attention to transitions (Beaubion-Broye, 1998; Besozzi, 1998; Donati, 1999; Galley & Meyer, 1998; OECD, 1996). The shifts underway in the educational system, along with changes in individuals' relationship to education, led to a focus

[1] Project financed by the *Swiss National Science Foundation* ["Multilingual capability and identity of young adults in Italian-speaking Switzerland"] undertaken by *Università della Svizzera italiana/Ufficio studi e ricerche/Alta scuola pedagogica.*

[2] *Jugendliche auf ihrem Weg ins Berufsleben* ["Young People On Their Way in Working Life"] (Bernath, Wirthensohn & Löhrer, 1989) was probably the first research of this kind to be undertaken in Switzerland in the 1980s. Also, in the Valais (*Office d'orientation du Valais romand*, 1992, 1995), a study was conducted of an age group (1976/1977) at the end of their required schooling and again 18 months later to check up on their educational and professional choices; a third phase planned for 8 years later was never carried out.

[3] http://www.cereq.fr/index.htm, consulted 31 July, 2009.

[4] http://www.tree-ch.ch/html_fr/index_fr.htm, consulted 31 July, 2009

in educational research and policy on transitions within the educational system (between schools or programmes) and on access to the labour market after having left the education system.

Before that period, when educational pathways were – due to a fairly strong harmony between the system's logic and that of individuals - still quite predictable and linear, the interests of educators, policy makers and researchers were mainly concerned with initial programme orientation and outcome (in the form of certification). Attention was accorded to the most obvious phenomena, such as failure, repetition, and dropout. The educational system maintained stable flows of students: this *traditional* model (Donati, 1999, Donati, 2000, Donati & Solcà, 1999) is characterized by internal coherence and strong structure, which ensured linear pathways and produced few changes between education programmes.

Today, we see the popularization and growth of new academic trajectories beyond these traditional paths, which represent an *emerging* model with anomic effects on the educational system (Donati & Solcà, 1999).

These changes within the school system are taking place in the context of a rapidly changing world of work, which makes the transition into the labour market even more complex and unpredictable for young people that leave the educational system.

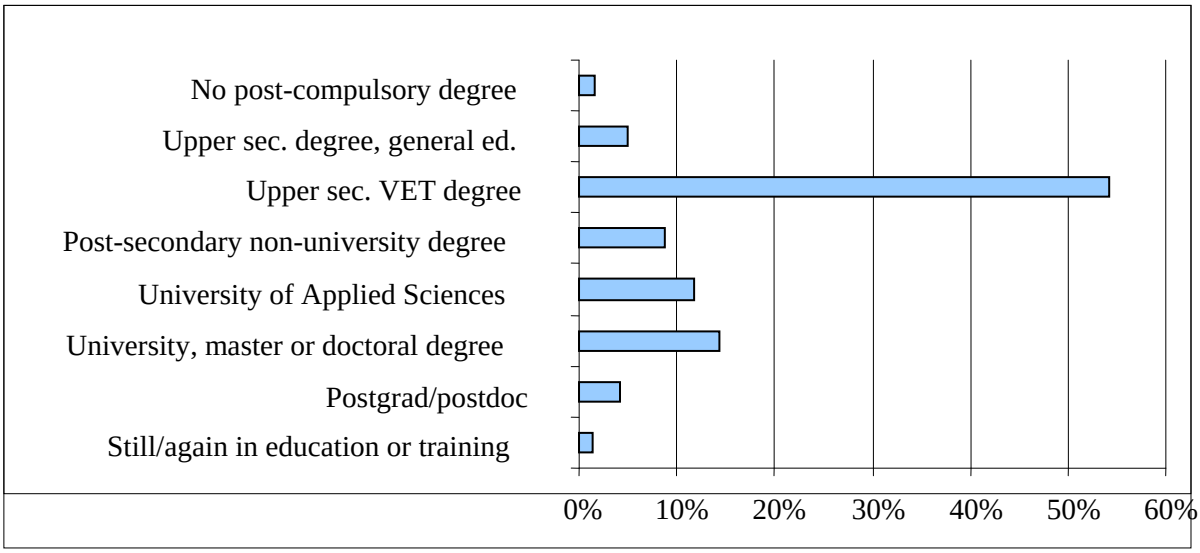
In Switzerland, research efforts[5] have been renewed thanks to the 1998 launch of a National Research Programme (NRP) on education and employment (*NRP 43*), which defined "interaction between the educational system and the job market" as one of its main focuses.

These efforts should eventually help to define a spatial and temporal backdrop that better contextualizes research results regarding all professional sectors, multiple moments in the regulation from education to employment (precocious transitions, versus mature transitions), and in different countries.

2. Educational pathways and transitions to the labour market

In 2002, 10 years after finishing their compulsory education, approximately one fifth of the Ticino cohort under study still were to complete their studies; by 2007, however, that was the case for only 4 percent. Nearly all cohort members pursued and completed post-compulsory education after the *Scuola Media* (lower secondary level), with the exception of a small minority (2%) who obtained no post-compulsory degree (Graph 2.1). The latter pursued their academic or professional training for an average of three years, but failed to complete it.

Graph 2.1: Highest degree earned 15 years after the end of compulsory education



[5] See Hansen, Sigrist, Goorhuis & Landolt, 1999 after the *Formation et travail* (Education and Work) conference held in Zurich in 1998, and the many publications related to the TREE study.

In 2007, the majority of the cohort (60%) had earned an upper secondary diploma, and approximately 40% had completed a post-secondary degree, three-quarters of which at the university level.

After compulsory school, the subjects continued their education for an average of 6.5 years, with a mode of 4 years. Of course, the period of education varies with the level of studies (Table 2.2). Averages reach from 2.5 years for subjects who obtained no post-compulsory certificate to 10.5 years for those who pursued academic undergraduate or graduate studies.

Three quarters of the cohort under study never interrupted their academic and/or professional education; 22% started an educational degree without finishing it; and approximately 4% changed educational directions two to five times.

Approximately one fifth of the cohort spent an intermediate year ("bridge" or "gap year") before enrolling in a new programme or after completing an apprenticeship or baccalaureate. The reason most frequently given was language studies abroad in order to improve German or English language skills.

Table 2.2: Number of years of post-compulsory enrolment, by highest degree earned

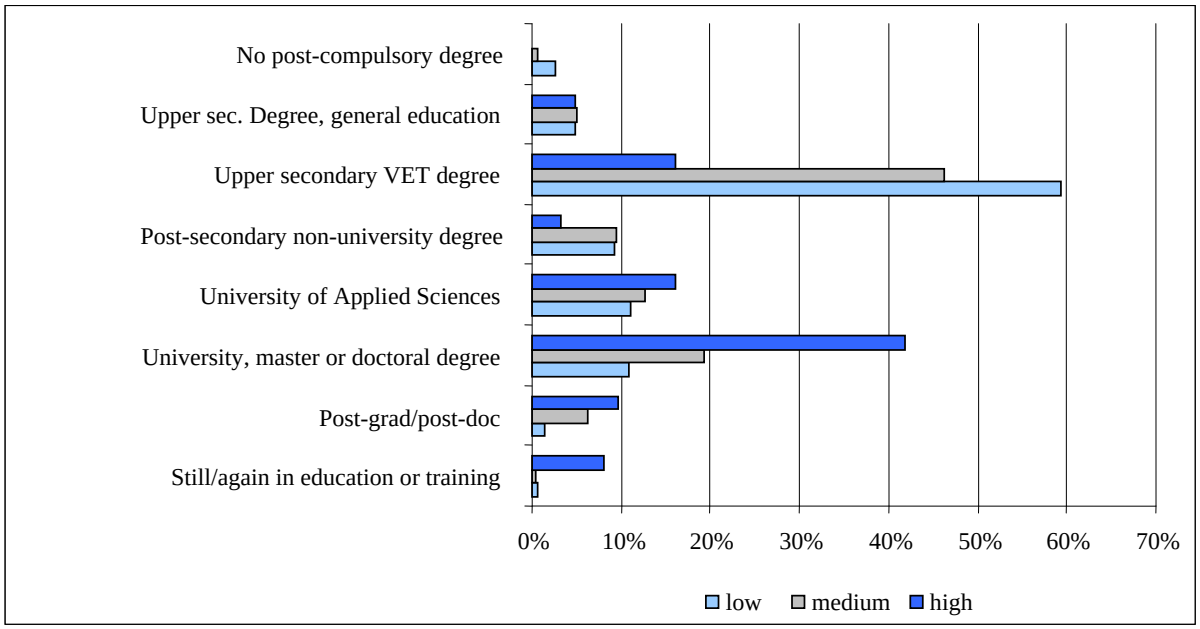
	No post-compulsory degree	Upper secondary level	Non-university post-secondary training	University of Applied Sciences degree	Academic undergraduate university degree, master's, doctorate, etc.
Average	2.3	4.7	7.8	8.7	10.5
Median	3	4	7	8	10
Mode	3	4	7	8	10
Minimum	0	2	3	5	7
Maximum	5	15	13	15	15

About 16% of the cohort pursued and completed two degrees of the same educational level (mainly upper secondary level), thus pursuing a pathway that could be called "horizontal" educational mobility.

We did not observe substantial differences between men and women, except at the highest and lowest academic levels. At the low end, the percentage of women failing to obtain any post-compulsory certification is seven times higher than that of men (2.8% vs. 0.4%). At the tertiary level, the proportion of women may be comparable to that of men for academic university studies, but it shrinks dramatically when it comes to (post-)graduate studies (doctorate, master's, etc.).

Socioeconomic background strongly affects educational pathways. Young people with privileged socioeconomic background go on to university studies at an overwhelming proportion, particularly academic and graduate studies, while two-thirds of those from disadvantaged backgrounds do not go beyond upper secondary level education or training.

Graph 2.3: Highest degree earned, by social background



Transitions to the labour market

In regard to the crucial transition to the labour market, a fifth of the cohort claimed that they took no steps to find a job at the end of their studies. This was typically the case for technical apprentices who went on to pursue careers within the company that had trained them. Among the 80% who had to take active steps to find their first job, the waiting period was relatively short: nearly half (45%) reported finding a job immediately after their studies, 36% searched for one to six months, and 16% waited for their first job from seven months to two years.

Even if the search period for the first job was relatively short for most cohort members, a third of them felt that they had encountered some difficulties, to which they reacted with a certain number of strategies. Table 2.4 shows a fairly exhaustive range of them: Ranking first is registering for unemployment (80%), followed by willingness to accept a modest income (77%) or temporary work (72%). It is interesting to note that the young people adopted multiple strategies, and more than half reported accepting a job that did not match their professional training. Furthermore, very few considered the idea of taking time off or devoting themselves to volunteering, which indicates that upon finishing their studies, they mainly desired to enter the labour market.

Table 2.4: Strategies to obtain first job

	Done	Considered	Never Considered
Accept temporary employment (internships, substitutions, etc.)	71.6%	17.8%	10.6%
Acquire new qualifications to improve opportunities (language study, specialisation, additional training, etc.)	53.8%	35.3%	10.8%
Geographic mobility	61.6%	27.8%	10.6%
Unemployment benefits	79.9%	6.9%	13.2%
Accept a modest income	76.6%	18.2%	5.2%
Accept a job that does not match credentials	54.3%	23.9%	21.8%
Take time off	11.7%	27.6%	60.6%
Volunteer (including abroad)	9.9%	31.3%	58.8%

Employed at last

In 2007, over eighty percent of our cohort has been employed, nearly half of them for over five years.

It is mostly women who are to be found among the 13.5 cohort percent not being gainfully employed. For them, family (65%) was the main reason given for not being part of the workforce, while men were likely to be either receiving unemployment benefits (49%) or still being in professional training (44%).

A clear majority of the young people (88%) were salaried employees under a work contract, while 4% were salaried without contract, and 4% were independent.

Over 90% of those gainfully employed worked more than half-time, with a strong tendency for full-time employment (84%). Note that women were more likely to work part-time.

Three quarters of the working subjects reported practicing the profession for which they were trained and using skills acquired during their education or training.

Taking into account the average age of these young people, it may not be too surprising that very few of them had already had significant promotions.

Up till 2007, half of the young people (54%) had worked for one or two employers, 29% for three or four, and the remaining 16% had had five to nine employers.

3. Summary and research possibilities

The transitions described in this paper, in particular those concerning the labour market, raise questions in view of a better understanding of these issues. At the same time, they should lead us to expand our conceptual reference points. For instance, what is the effect of entering the workforce at age 15 (premature transitions) with very limited qualifications, as opposed to age 25 (mature transitions) after university studies? How can it be that the young people who are the first to have to make essential choices about their future are often the most disadvantaged in terms of education, family and social background, while their counterparts who perform better in school can postpone their choices? What are the mechanisms underlying the fact that - despite substantial and long-standing political efforts in terms of democratisation and equity of education - the best jobs, all things being equal, end up being allotted to the well-to-do and to men rather than women? What is the relationship between skills acquired during education and skills that are used or usable on the job? What are the determining factors (or, if you prefer, "added value") to academic credentials that facilitate a more successful transition to the first job?

Over the next few years, we plan to publish a series of monographs on:

- educational pathways, particularly measuring the long-term effects of socio-cultural variables as individuals move through the educational system;
- the intersection between education and employment, highlighting the differences between premature transitions (after lower or upper secondary levels) and mature transitions after longer, post-secondary education, and focusing on the dynamics involved in these tangles (practical details of the choices, role of the families, competition among individuals, decisive factors, strategies adopted, geographic mobility, correspondence between education and work, etc.);
- the development of personal values during the transition from adolescence to adulthood;
- an analysis of access to cultural life and community practices;
- the socio-demographic consequences of the changes that have marked the educational system and the transition to the workforce.

It is a future full of opportunities, so we intend to dig deeper in order to unveil the data still hidden in this longitudinal study, and to honor the efforts made over the 15 years by the researchers and above all by the young people, which we thank once more for their loyalty and commitment.

Bibliography

Beaubion-Broye, A. (1998). *Evènements de vie, transitions et construction de la personne*. Toulouse: Erès.

Behrens, M. (Ed.). (2007). *La transition de l'école à la vie active ou le constat d'une problématique majeure*. Neuchâtel: IRDP.

Bernath, W., Wirthensohn, M., & Löhrer, E. (1989). *Jugendliche auf ihrem Weg ins Berufsleben.* Bern: Haupt Verlag.

Cattaneo, A., Donati, M. & Galeandro Bocchino, C. (in press). Quinze ans en 1992, trente ans aujourd'hui. *Revue suisse des sciences de l'éducation.*

Cattaneo, A., Donati, M., & Galeandro Bocchino, C. (2009). *Trentenni…click! Panoramica sugli esiti di una ricerca longitudinale condotta sui giovani che hanno terminato la scuola dell'obbligo in Ticino nel 1992.* Bellinzona: Ufficio studi e ricerche.

Donati, M. (1999). *Volevi veramente diventare quello che sei?* Bellinzona: Ufficio studi e ricerche.

Donati, M., & Solcà, P. (1999). Mobilité à l'intérieur du système de formation et transitions vers le travail. In: H. Hansen, B. Sigrist, H. Goorhuis & H. Landolt (Éd.), *Bildung und Arbeit. Das Ende einer Differenz?/Formation et travail. La fin d'une distinction?* (119–130). Aarau: Sauerländer.

Donati, M., & Lafranchi, G. (2007). *Formazione sì. Lavoro anche? I percorsi formativi e professionali dei giovani: fra strategie individuali e logiche di sistema.* Bellinzona: Ufficio studi e ricerche.

Galley, F., & Meyer, T. (1998). *Transitions de la formation initiale à la vie active: Rapport de base pour l'OCDE: Suisse.* Berne: CDIP, OFES , OFFT.

Hansen, H., Sigrist, B., Goorhuis, H., & Landolt, H. (Éd.). (1999). *Bildung und Arbeit. Das Ende einer Differenz?/Formation et travail. La fin d'une distinction?* Aarau: Sauerländer.

Masdonati, J. (2007). *La transition entre école et monde du travail. Préparer les jeunes à l'entrée en formation professionnelle*. Berne: Peter Lang.

OCDE. (1999). *Examen thématique sur la transition de la formation initiale à la vie active: rapport comparatif final*. Paris: OCDE.

Office d'orientation du Valais romand. (1992). *Horizon 2000. Première phase*. Sion: Département de l'instruction publique

Office d'orientation du Valais romand. (1995). *Horizon 2000. Deuxième phase*. Sion: Département de l'instruction publique

Office d'orientation du Valais romand. *Horizon 2000. Deuxième phase*. Sion: Département de l'instruction publique, 1995.

Access to secure job at the beginning of the career : How and Who?

Vanessa di Paola, Stéphanie Moullet
Cnrs-Lest, France

In 2006, 87% of French workers have a job with permanent contract, only 49 % of young workers who are less than 25 years old, are in this case. Although precarious jobs or fixed-term contracts are not the "norm" and still atypical forms of employment, atypical employment has risen for three decades. This development of the atypical forms of employment concerned in particular the most weakened population on the labour market, young workers. In answer of a high youth unemployment rate, labour market policies towards youth led to create numerous specific contracts. Consequently, during the 80's, the share of young people in atypical employment, one year after the end of schooling has increased from 47% to 80 %.

The question therefore arises how these more precarious and flexibilized contexts of the labour market has impact the young workers' careers ? Have young workers more difficulties the oldest to access to a secure job position ? Is atypical employment serve as a bridge to secure employment ? In others words, who and how school-leavers access to their first secure job ? What aspects determine access duration to the first secure job? In particular, what is the effect of atypical employment on access to this job? Using competing risk models, we analyse the effect of individual characteristics such as social background, schooling path and diploma but also the economic cycle on the transition from atypical towards typical employment.
The survey we used, *Generation 98*, allows us to focus on the impact of individual observable characteristics on the labour market entrance and establishment and on the early career, controlling for economic and institutional conditions. This dataset is a longitudinal one, provided by *Cereq* which concerned the 1998 school-leaver cohorts. It contains 16 000 observations representatives of French education leavers. For this cohort, monthly information was collected retrospectively about youths' labour market activities over the first seven years after they left the educational or vocational training system. In addition to various socio-demographic characteristics of the interviewees, detailed information was collected about each activity from the end of schooling to autumn 2005 : for job episodes, type of contract, detailed occupation, income perceived, etc. are available. Because of the high quality of the calendar data, we can exactly describe the labour market history of the 1998 school-leavers, between the end of schooling, or between the first job and the employment situation in 2005 that correspond to a seven-years observation window.

An approach of non response in Generation Surveys, France

Bérangère Duplouy, Pascale Rouaud
CEREQ, France

Since the mid 90's, Cereq (France) has been carrying out Generation Surveys. These are regular telephone surveys conducted on samples of young people who left the educational system a given year. All educational levels and all training specialisations are concerned. Generation 1998 and Generation 2004 constitute cohorts interviewed several times. For example for Generation 1998, 55 000 French school-leavers in 1998 were interviewed in 2001 for the first time. Among them, 11 000 were later interviewed both in 2003, 2005 and 2008.

At the first wave, phone numbers from the database are often missing or off colour. In order to improve the response rate, Cereq both carries out phone investigations and sends information letters explaining the survey to school-leavers. The final response rates are around 30% for the first waves. The origin of phone number, the educational level, the training specialisation and the region of education are used to compute sampling weights for this wave.

The response rate rises to around 70% for the following waves and the attrition presents a new shape. If the educational level and the region of education are still significant in explaining response rates, status on the labour market and residence situation in previous surveys also become of importance.

On the one hand, the attrition wave after wave decreases the precision of estimates. On the other hand, thanks to "non response" modelling, the weighting "adjustments" limit biases. Indeed for Generation 1998, the mean weights increased from 13.4 at the first wave to 67.0 at the fourth. At the same time, the variances of the weights increased from 13.5 to 44.4. The weighting adjustments have an impact on key variables such as unemployment rate. For example for the fourth wave of Generation 1998, the non weighted unemployment rate reached 5.1% against 6.7% after adjustment.

Youth Transitions – Future direction for data, methods and theory

Vernon Gayle
University of Stirling, UK

This presentation is intended to introduce and outline a range of issues relating to the study of youth transitions in the 21st Century. It is intended to be discursive and to generate debate. In this presentation I will introduce some general thoughts on the concepts of 'youth' and 'youth transitions'. I will make a series of assertions on the enterprise of sociological theorising. I will provide some prescriptions relating to the collection of appropriate youth data and briefly comment on data analysis methods.

The majority of the empirical data presented will be British, but some data from other European states will feature. I will attempt to illustrate that the demographic landscape against which young people grow up and make transitions to adult life is changing.

I will argue that studying youth transition in the 21st Century is still intellectually important. The role and effects of key transitions might be different to previous decades and social structures might be changing, however these changes should not simply be assumed and must be the subject of detailed empirical analyses. I will also argue that more suitable data resources are required, and we require more skilled researchers to undertake comprehensive analyses. I will conclude that the overall goal is to undertake more high-quality empirically informed research into youth transitions.

Resilience to critical events and interactions with educational and employment trajectories within the TREE study; the first steps of the project

Edith Guilley (1), Ruth Silver (1), Mario Donati (2), Jacques Amos (1), Joan-Carles Suris (3)

(1) Service de la recherche en éducation, Département de l'instruction publique, Genève, (2) Ufficio studi e ricerche, Dipartimento dell'educazione, della cultura e dello sport, Bellinzona, (3) Groupe de recherche sur les adolescents, Institut universitaire de médecine sociale et préventive, Lausanne, Switzerland

Abstract

In the framework of understanding individual differences in educational and employment trajectories, this project posits that critical life events in the lives of young adults in Switzerland are associated with adverse educational and employment outcomes, including negative effects on mental health and health behaviours.

The project is based on the seven panel waves of TREE (Transitions from Education to Employment), a longitudinal study which surveys annually (2001-2007) approximately 5'000 young people who participated in the PISA survey in the year 2000, and who left compulsory school the same year.

We detail the first steps of the project and focus on the concept of resilience (i.e. positive adaptation by individuals to experiences of adversity). One limit in the literature on resilience is the use of a crude dichotomy in the definition of adversity (presence versus absence of a single risk) and of adaptation to adversity (has developed at least one negative outcome versus any). To avoid this latter limit; we propose a methodological framework based on multilevel analyses for the identification of resilient young adults (i.e. those developing fewer negative outcomes than predicted for a given level of cumulated adversity).

As a first step of the project, we considered a cumulated index of critical life events (occurring in various domains in the life of young adults) as an indicator of adversity and less frequent psychosomatic symptoms than predicted for a given level of adversity as an indicator of resilience. Results showed that psychosomatic symptoms were frequent in this population (almost 70% had at least one frequent symptom) and highly associated with critical events related to the emotional sphere (conflicts with family or friends, conflicts at school or at work or unhappy romances). Individual variability in the adaptation to adversity was highly significant. Preliminary results also seem to indicate the existence of a threshold of adversity from which the capacity to adapt may sharply decrease.

Testing individual differences in the capacity to adapt to adversity is a first step toward understanding why and using which assets and resources allow resilient individuals to better face everyday stressful events and the various challenges that educational or employment transitions can pose.

Resilience to critical events and interactions with educational and employment trajectories within the TREE study

- The first steps -

Edith Guilley
in alphabetical order
Jacques Amos
Mario Donati
Ruth Silver
Joan-Carles Suris

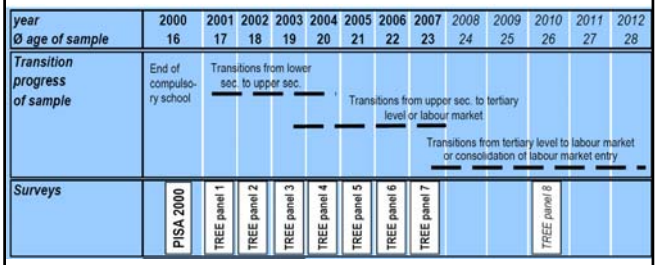
Objectives of the project

- Understanding the **individual differences** in educational and employment trajectories
- Identifying important **resilience factors** that help young people in Switzerland to overcome or at least manage critical events and challenges relating to educational or employment transitions

Hypotheses

- Adversity (e.g. critical events) in the lives of young adults in Switzerland is associated with adverse educational and employment outcomes, including negative effects on mental health and health behaviours
- This association may be influenced by
  - → (1) socio-demographic and socio-economic characteristics (e.g. age, gender, socioeconomic status, parental background, migratory status),
  - → (2) the educational or employment situation (e.g. level and type of education, satisfaction),
  - → (3) resilience factors (e.g. social support, self-efficacy).

The TREE (Transitions from Education to Employment) study



≈5'000 young people

Project team

Karin Müller, director, Edith Guilley, scientific collaborator, Educational research service, Geneva	EDUCATION; METHODOLOGY
Mario Donati, researcher, Ufficio studi e ricerche, Bellinzona	EDUCATION, SOCIOLOGY
Joan-Carles Suris, Head of unit, Research group on adolescent health, University institute for social and preventive medicine, Lausanne	SOCIAL AND PREVENTIVE MEDICINE
Barbara Stalder, scientific collaborator, TREE research team, University of Basel	PSYCHOLOGY

What is resilience?

"Resilience denotes the maintenance of **normal development or positive adaptation** by individuals despite experiences of significant **adversity**" *(e.g. Garmezy, 1991)*

Very adverse situations

Few research projects have been conducted with healthy adolescents who are confronted with everyday stressful events *(cf. Ahern et al. 2008)*

To assess positive adaptation and adversity

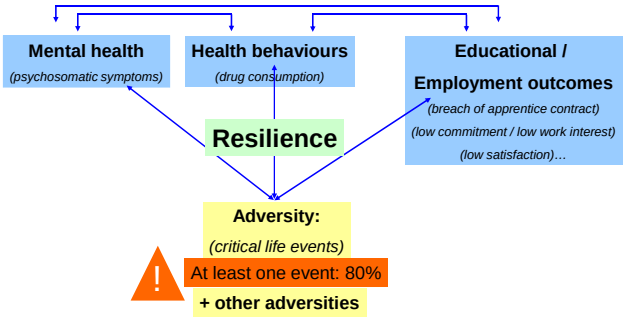
- •Developmental tasks *(school competence)*
- •Absence of symptoms related to well-being *(absence of psychosomatic symptoms)*
- •Specific experiences (parental divorce)
- •Structural 'risk factors' (social disadvantages)

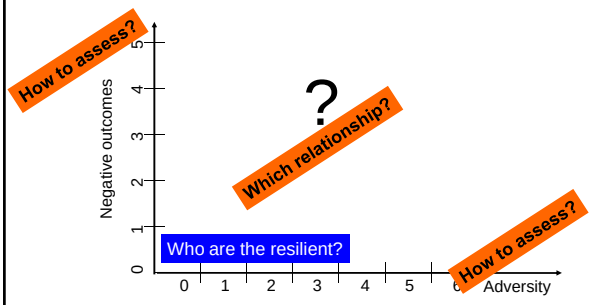
Some limits in the literature

(nursing, medicine, psychology, and education)

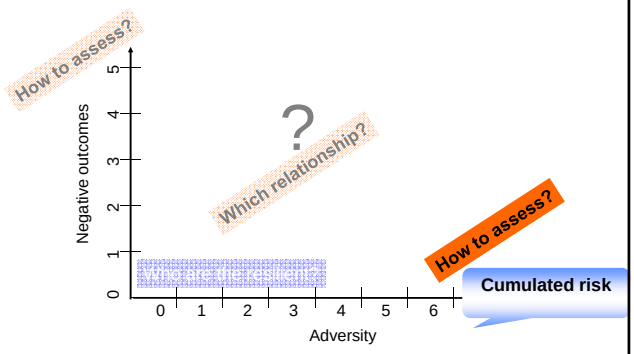
- research on resilience is still seldom based on large longitudinal surveys,
- adaptation to adversity is often considered as an one-dimensional outcome,
- models between adversity and negative outcomes are often not validated on other populations
- research often uses a crude dichotomy in the definition of adversity (presence *versus* absence of a single risk) and of adaptation to adversity (has developed at least one negative outcome *versus* any),

The project and its steps



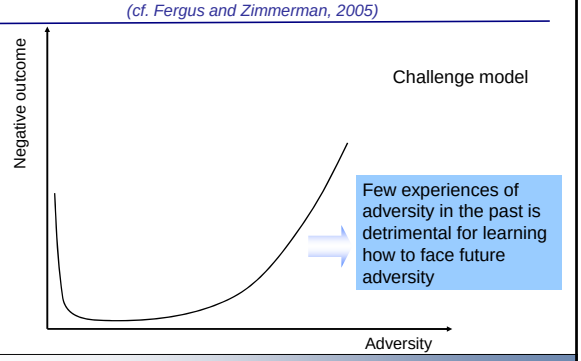


How to assess adversity?



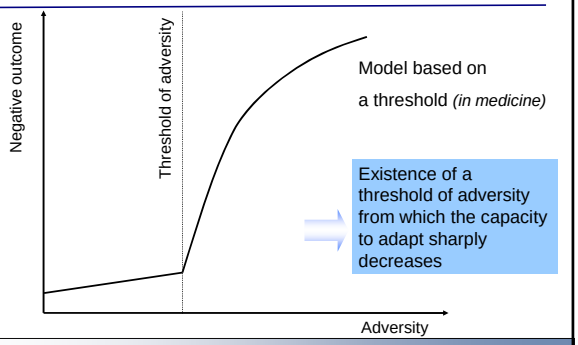
Which relationships?

(cf. Fergus and Zimmerman, 2005)



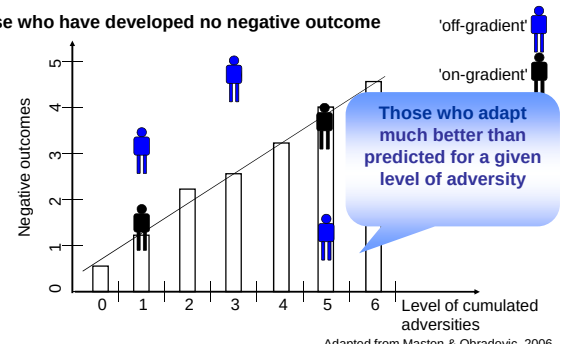
Which relationships?

(cf. Fergus and Zimmerman, 2005)



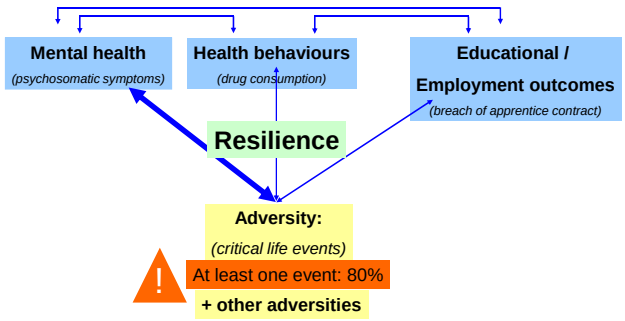
Who are the resilient?

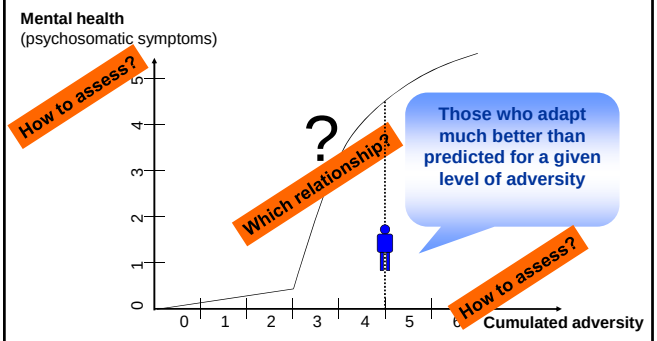
Those who have developed no negative outcome



Adapted from Masten & Obradovic, 2006

The project and its steps





Mental health : psychosomatic symptoms of young adults

"During the past month,
did you have stomach-ache, strong headache, problems of concentration, were you without appetite, nervous and disturbed, more tired than usual, did you feel dizzy, did you have problems in falling asleep? "

Wave (*age*)	1 (*17*)	7 (*23*)
At least one frequent symptom (%)	69	62

Frequent = once a week to every day

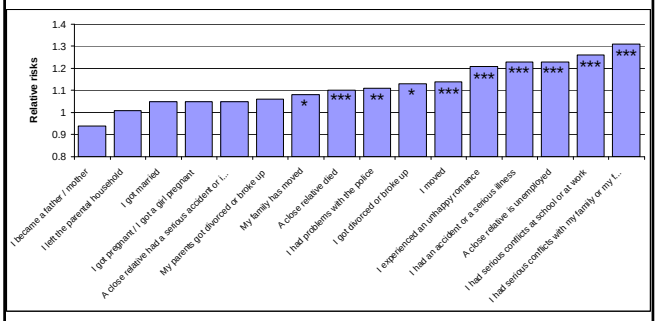
Cf. Grob et al. (1991)

The adversity in the life of young adults

Wave (age)	1 (17 years)	7 (23 years)
My family has moved	7.2	/
I left the parental household	3.7	21.5
My parents got divorced or broke up	3.6	3.4
I got married	0.2	2.0
I had an accident or a serious illness	4.8	3.3
A close relative died	18.7	13.9
I had problems with the police	5.0	2.1
I experienced an unhappy romance	22.2	15.1
I had serious conflicts at school or at work	6.9	3.3
I had serious conflicts with my family or my friends	12.8	4.1
I became a father / mother	0.1	1.5
I got pregnant / I got a girl pregnant	0.4	1.6
I moved	/	26.5
I got divorced or broke up	/	5.9
A close relative had a serious accident or illness	/	7.8
A close relative is unemployed	/	8.2

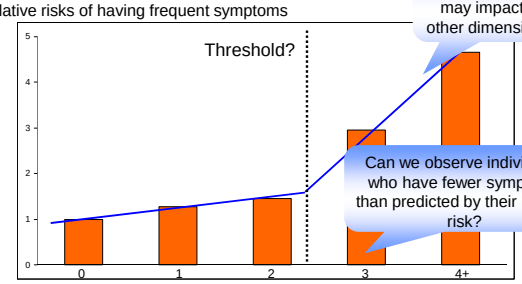
adapted from Neuenschwander, et al. (2001)

Critical life events associated with psychosomatic symptoms



Critical life events associated with symptoms

Relative risks of having frequent symptoms



Number of critical life events mentioned a given year

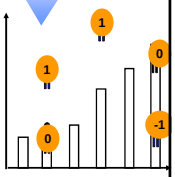
Cascading effect of adversity which may impact on other dimensions?

Can we observe individuals who have fewer symptoms than predicted by their level of risk?

Inter-individual variability around the relationship between adversity and symptoms

Effect	Relativ
Fixed effects	
Socioeconomic status (higher)	1.05**
Gender (men)	0.56***
Number of critical life events, wave *t*	1.14***
Number of frequent psychosomatic symptoms, wave *t-1*	1.15***
Random effects	
Intercept variance	0.700***
Slope variance (number of critical life events, wave *t*)	0.010*
Slope variance (number of frequent psychosomatic symptoms, wave *t-1*)	0.023***

Which relationships between a 'resilient scale' and assets / resources?



Next steps

- **To submit to SNF!**
- **To improve the assessment of adversity: facing educational or school-to-work transitions, experiencing critical educational events, past adversities, take into account the temporality of events**
- **To take into account other negative outcomes (resilience is an interdisciplinary concept!)**
- **To identify assets and resources which allow resilient individuals to better face everyday stressful events and the various challenges that educational or employment transitions can pose**

Two longitudinal youth surveys hosted by NOVA - Norwegian Social Research

Kristinn Hegna
Group for Youth Studies, NOVA, Norway

Abstract

Young in Norway Longitudinal – a national survey following about 3000 respondents through four waves from their early teens in 1992 to their mid-twenties in 2005. The response rate is 82.4% and the dataset includes about 2500 variables. The dataset in complemented with register data on social security benefits, work and education history, illness and death.

LUNO – Longitudinal Youth Survey Oslo started fall 2006 and includes 2500 young people in Oslo born 1992. All Oslo youth in this age group was eligible for inclusion, but about half of the parents consented to participation. The T1 questions included a wide array of themes related to school, leisure, family, health, alcohol/drug use, mental health, resilience, ethnicity/immigration issues etc. 80% of T1 respondents filled in the T2 questionnaire (spring 2008), amounting to 1850 respondents on both waves. The T2 questionnaire included mainly questions about the choice of track and upper secondary schooling. The forthcoming T3 data collection will be carried out during fall 2009, when the respondents are in their second year of upper secondary school. The dataset will be complemented with register data regarding education and work.

Longitudinal Youth Studies hosted by NOVA

1. Young in Norway 1992-2008

2. LUNO 2006 - 2020

Norwegian Social Research

- A social policy research institute under the auspices of the Norwegian Ministry of Education and Research.
- Among the largest social research institutions in Norway, and has a multidisciplinary staff of about 90 researchers
- Key research areas:
  - welfare of children and youth ⟶ Group for Youth Research
  - ageing
  - family
  - social security and social assistance
  - public policy, welfare services and living conditions
  - migration and minorities

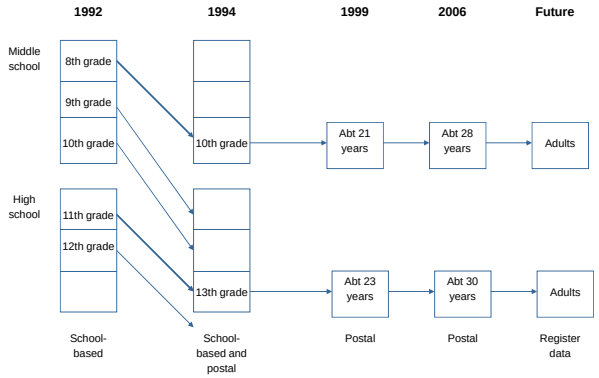
Group for youth research

- Roots back to 1989 and "UNGforsk", a research programme for youth research at the norwegian Research Council
- 1996- today, part of NOVA
- 10-20 researchers from sociology, psycology, pedagogics
- Research on education, poverty, social welfare, migration, living conditions, lifestyles
- Mostly large scale, quantitative studies of youth in local communities, cities for planning purposes
- Two longitudinal studies of youths

Young in Norway Longitudinal 1992-2006

- Starting point: Cross-sectional representative study of Norwegian youths 13-19 years old in 1992.
- Middle school: 8th-10th grade, High school: 11th-12th grade
- Follow-up 2 years later
- School in charge of administration and follow-up
- Students still in their school at T2 were followed up at T3/T4

Design – Young in Norway Longitudinal



Sample and response rates

t1: 1992
-70 schools, 7th-12th grade
-N=11,985
-97% response rate
-Mean age 14,9

→

t2: 1994
-N=7,751
-overall 80% response rate (92% in school, 67% postal survey)
-Mean age 16,5

→

t3: 1999
-N=2924
-83% response rate
-Mean age 22,1

→

t4: 2005/6
N=2890
-82% response rate
Mean age 29,0

Research themes

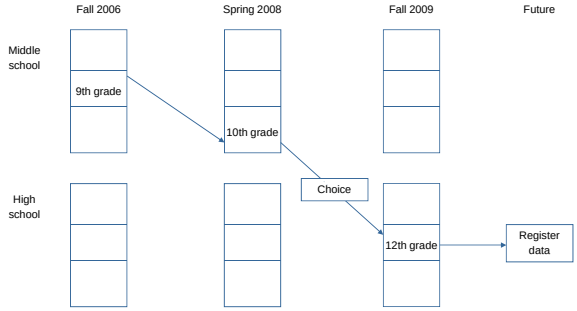
- Personal background – Origin, household, family, marriage
- Family background – Parents' education, occupation, marital status, origin, parental monitoring and bonding
- School and work – grades, attitudes, plans, employment, economy, career attitudes
- Social arenas – leisure, sports, friendships, social support
- Cultural lifestyle – activities, consumption, organisations, music and television, politics
- Psychological factors – puberty, sexuality, body image, self-perception, mental health, conduct problems, substance use and misuse, eating disorders, depression, parasuicide, health
- Future register data – education, employment, health, welfare services

A total of about 60 publications in Norway and abroad

LUNO – Young in Oslo 2006

- Following a cohort of Oslo youth through middle school and high school into higher education and work
- Focus on the choice of track and education
- Focus on reaching educational goals – or not

Design



Sample and response rates

Population: 4680 students

Consenting students/parents: 2373 students

t1: 2006	t2: 2008	t3: 2009
-8th grade	-N=1961	-N=?
-N=2328	-overall 82.6% response rate	-?
-98% response rate	-Mean age 15.5	-Mean age 17
-Mean age 14		

- Educational ambitions, school factors, teacher social capital
- Social networks, peer social capital, parental social capital
- Negative life events, mental and physiological health

Second data collection, 2008

A focus on educational choice, ambitions and the future

- What did they choose (academic/vocational tracks), how did they choose
- Parents' attitudes and role *in* choice of education
- Friends' role in choice, counseling
- Future plans and ambitions
- Social networks, social capital, social support

- Open ended questions (eg 700 students tell their story about what made choosing track and high school so difficult)

Third data collection, 2008

A focus on here and now at high school, ambitions and the future

- Good choice? Drop out? Change of plans?
- Future plans and ambitions – to see change
- Social networks, social capital, social support – to see change (eg less family, more friends networks important)

Ongoing and planned projects

Educational Pathways – intersections of gender, class and minority status.

- Funding from Norwegian Research Council 2007-2012
- Combination of LUNO data and qualitative data

Making a choice, making the future? A longitudinal study of mechanisms explaining structural differences in educational choice/attainment

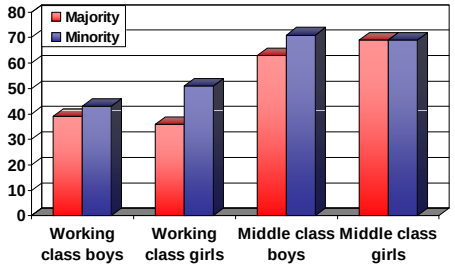
- Grant proposal pending
- Combination of LUNO data and register data

Educational pathways

To describe and explain differences in and development of educational aspirations and choice of upper secondary education between youth differentiated by gender, social class and minority background.

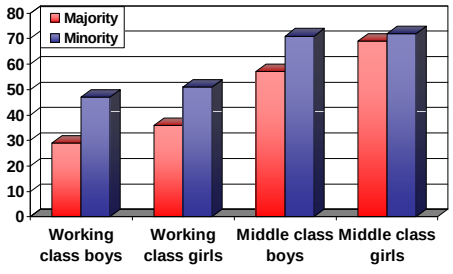
- To describe the distribution of, and change/ stability in, educational aspirations during lower secondary school among minority and majority youth.
- To explore the importance of economic, social and cultural resources for educational trajectories of minority and majority youth.
- To explore the importance of experiences of exclusion and discrimination for educational trajectories of minority youth.

Students reporting ambitions of university education at T1



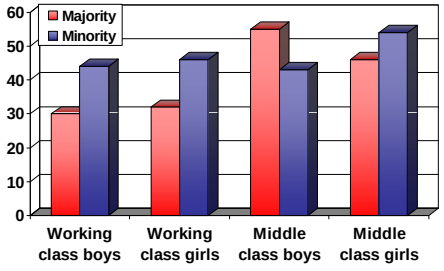
χ=181,1 p<.001 Eta=.09

Students reporting ambitions of university education at T2



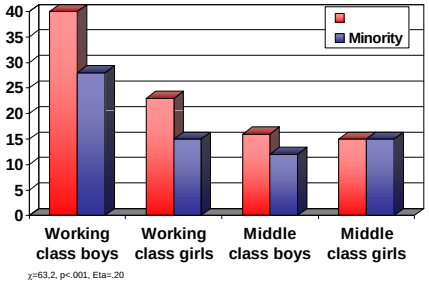
χ=239,2 p<.001 Eta=.07

Students with growing educational ambitions from T1 to T2



χ=24,9, p<.01, Eta=.19

Students with diminishing educational ambitions from T1 to T2



χ=63.2, p<.001, Eta=.20

NOVA
Norwegian Social Research

Educational Pathways of Canadian Youth: Findings from the Youth in Transition Survey

Julie Hudson
Dept. of Sociology, University of Alberta, Canada

A key public policy goal in Canada for the last several decades has been to increase access to post-secondary education (PSE) so those who have the ability to participate and wish to, can do so. Studies of post-secondary participation and attainment reveal that the proportion of young adults participating in and graduating from the PSE system has increased dramatically (Clark, 2000). However, despite massive expansions in the Canadian post-secondary system through the introduction of community colleges and new universities which offer more avenues for educational opportunities past high school, participation in PSE is still not equitable across all social strata and there still exists groups of youth who are being left behind.

Changes in immigration policies have created a more racially and ethnically diverse population, whose aspirations often exceed those of the native-born (Boyd 2002). These changes, alongside continuing regional disparities, an increasingly visible Aboriginal population, increases in post-secondary tuition rates, and educational reforms such as the National Student Loan Program designed to assist youth who traditionally could not afford a post-secondary education, lead to the question: what form does educational inequality take within contemporary Canadian society?

This paper, using Statistics Canada's *Youth in Transition Survey* (YITS), a nationally-representative longitudinal study that collected data from 29,000 Canadian 15-year olds, along with their parents and schools, in 2000, with follow-up surveys in 2002 and 2004, examines the different pathways young people maneuver between high school and the initial post-high school years. The goal is to understand whether particular pathways lead to specific educational outcomes and if demographic characteristics, familial circumstances, and/or high school experiences come to influence the particular pathways youth are transcending in their transition to adulthood.

Historically, most youth followed more a normative pathway of graduating from high school, starting their first full-time job, marrying, and then having a family. However, this pattern has become less common due to the prolonged nature of the transition into adulthood and the expansion of higher education. Therefore, the question arises, what educational choices are available to youth and are certain groups of youth more or less likely to pursue certain options?

By examining linear pathways (straight from high school into post-secondary education) compared to non-linear pathways (the youth either does not graduate from high school or discontinues their education after high school) and which young people are more or less likely to transcend both types of pathways, this research may provide insight into patterns of inequality which exist within Canadian society and hold the potential to have profound effects on the long-term life course trajectories of at-risk youth.

Educational Pathways of disadvantaged Youth in Germany and Switzerland

Sandra Hupka-Brunner (1), Nora Gaupp (2), Barbara E. Stalder (1), Tilly Lex (2), Boris Geier (2)

(1) TREE – Transition from Education to Employment, Institute of Sociology, University of Basel, Switzerland, (2) DJI – Deutsches Jugendinstitut München, Germany

Abstract

In recent decades, successful transition from compulsory school to upper secondary education has become ever more important. Completion of post-compulsory education has probably become the most crucial single prerequisite for entering the labour market. Today, school-to-work transition takes place in a less straightforward fashion as it has been the case for previous generations of school leavers. Nowadays, the first step into vocational education and training (VET) is often characterised by makeshift decisions, delays and detours.

International comparison highlights that the integration of academically low-achieving youth is one of the most important advantages of the dual VET (Vocational Education and Training). But does the dual VET actually fulfill this promise?

Germany and Switzerland are both countries with strong tradition of dual VET. During the last decades both countries suffered from a significant lack of apprenticeship-places. As a consequence, a growing field of intermediate-solutions like vocational preparation programmes or additional years of schooling have emerged. Those young people that seem to be affected most by this lack of apprenticeship places are low achieving youth ("Realschule" in Switzerland, Germany "Hauptschule" in Germany) and those with migration background.

In this presentation, we will compare the pathways of disadvantaged young people in Germany and in Switzerland, comparing two school-leaver-cohorts. For Switzerland, the first three waves (2000-2003) of TREE-data are tested and for Germany, the "Transition-Panel" of the DJI (2004-2007) can be used. We apply optimal matching analysis to compare the patterns of transition of these cohorts.

This international comparison points to important differences between the educational system and labour market situation of Germany and Switzerland. Limitations of international comparison will be discussed also.

Educational Pathways of disadvantaged Youth in Switzerland and Germany

Sandra Hupka-Brunner[1], Nora Gaupp[2], Barbara Stalder[1] ,Tilly Lex[2] und Boris Geier[2]
[1] TREE – Transitions from Education to Employment, Sociological Institute at the University of Basel
[2] DJI – Deutsches Jugendinstitut München (German Youth Institute)

Questions

(A) methodical questions
How can the two systems of general and vocational education in Switzerland and Germany be made comparable for transnational comparative analyses?

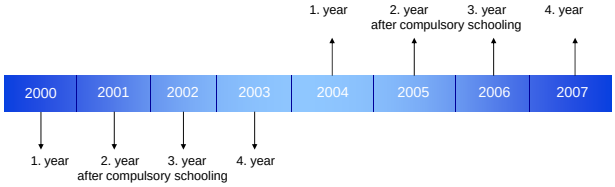
(B) questions for the transnational comparison
What are the characteristics of transitional pathways of graduates from lower secondary schools (with basic intellectual requirements) after the completion of compulsory schooling in Switzerland and Germany?

- To what extent do youths begin vocational education and training (VET) immediately after compulsory schooling?
- To what extent do they take intermediate steps between school and vocational and training (VET) training? How long do these periods of intermediate steps last?
- To what extent do youths experience periods of unemployment during the first three years after compulsory schooling?
- To what extent can youths begin skilled work within the first three years after completing compulsory schooling?

Design of the two longitudinal studies

- longitudinal studies in a genuine panel design
- describing the education and training careers of graduates from lower secondary schools with basic intellectual requirements (Switzerland „Realschule“, Germany „Hauptschule“)
- for this transnational comparison analysis of a period of 3 years after compulsory schooling

DJI-Transition-Panel



TREE-Panel

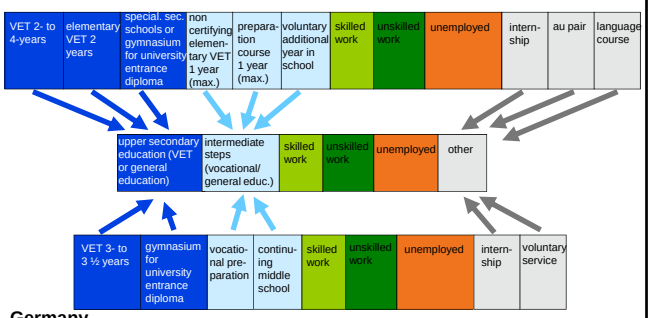
Samples

	Switzerland	Germany
type of school completed	lower secondary school with basic intellectual requirements	
grades	9	9/10
age*	16,6	16,8
girls/boys	51% / 49%	46% / 54%
youths with immigrant background	36%	57%
	N= 448	N= 976

* age in november 2000 (CH) resp. 2004 (D) after completing compulsory schooling

Common dependent Variable

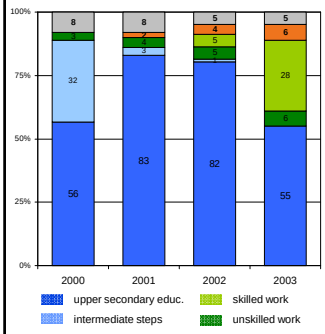
Switzerland



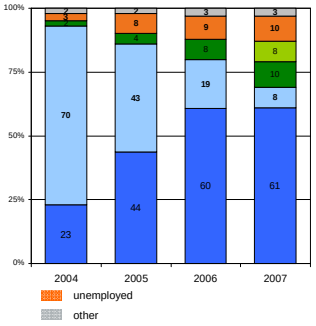
Germany

Education and Training Positions

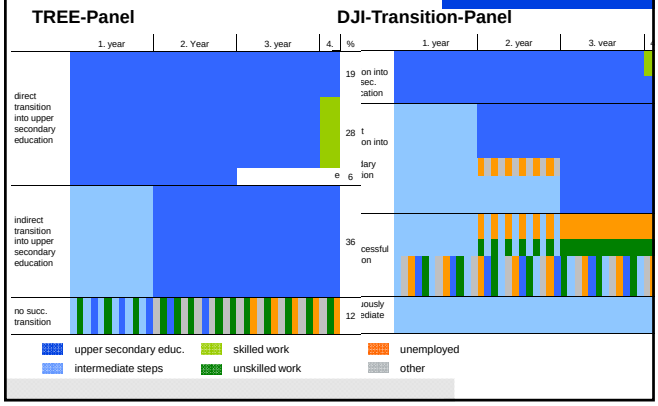
TREE-Panel



DJI-Transition-Panel



Types of Education and Training Careers



Methodical Limitations/Problems of transnational Comparisons of educational Systems

Dimensions of Comparability

- certificates
- international classifications of educational levels (e.g. ISCED)
- contents of learning
- philosophies/traditions in educational systems (e.g. distinction between general and vocational education)
- functions of placements for following placements
  - theoretically intended following placements
  - empirical/actual possible following placements
- administrative responsibility/funding (e.g. school system, labour administration)

Additional Difficulty

- federal organization of education (cantons in Switzerland, federal states in Germany)

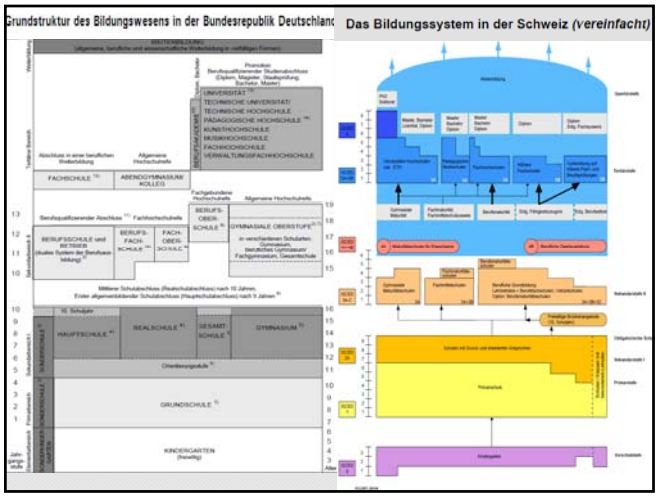
Thanks for your attention!

Dr. Boris Geier
German Youth Institute
☎0049-89-62 306 246
✉ geier@dji.de

Dr. Nora Gaupp
German Youth Institute
☎0049-89-62 306 324
✉ gaupp@dji.de

Dr. Sandra Hupka-Brunner
University of Basel
☎0041-061-267 28 28
✉ sandra.hupka@unibas.ch

glossary / common wording / definitions	Switzerland	Germany
upper secondary education	Sekundarstufe II	
.. of general / vocational education (adjective)	allgemein-/ berufsbildend (Adjektiv)	
compulsory schooling / compulsory general education	obligatorische Schulzeit	Pflichtschulzeit
Lower Secondary Schools with basic or low intellectual requirements	Realschule, Schule mit Grundanforderungen	Hauptschule
Middle School (Lower Secondary Schools with high intellectual requirements)	Schule mit erweiterten Anforderungen	Realschule, Sekundarschule die zum mittleren Schulabschluss führt
"Gymnasium"	Gymnasium/Maturitätsschule	Gymnasium
Specialized Middle Schools	Fachmittelschule (früher Diplommittelschulen) die zu Fachmaturität führen	---
Vocational education and training (VET) in vocational schools or in an apprenticeship	Berufsausbildung schulisch oder dual (Lehre)	Berufsausbildung schulisch oder dual (Lehre)
Elementary VET program 2 years	Attestausbildung	---
Intermediate steps (between school an VET)	Zwischenlösungen/Brückenangebote (zwischen Schule und Ausbildung)	Zwischenschritte (zwischen Schule und Ausbildung)
Vocational preparation	---	Berufsvorbereitung (z.B. Berufsvorbereitungsjahr BVJ, Berufsgrundbildungsjahr BGV, Berufsvorbereitende Bildungsmaßnahme der Arbeitsagentur BvB)
Voluntary additional year in school	10. Schuljahr	---
Non certifying elementary VET program max. 1 year	Vorlehre (maximal 1jährig)	---
Preparation course max. 1 year	Vorkurs (maximal 1jährig)	---
Skilled/unskilled work	qualifizierte/unqualifizierte Arbeit	
Not in education, training or employment, unemployed	nicht in Bildung, Ausbildung oder Arbeit, ausbildungslos	



How VET Systems Provide Educational Opportunities

Educational opportunities and ethnicity in Germany and Switzerland taking into consideration the regional structure of VET supply

Christian Imdorf (1), Holger Seibert (2), Sandra Hupka-Brunner (3)

(1) Institute of Sociology, University of Basel, Switzerland, (2) IAB, Regionalstelle Berlin, Germany

Abstract

This paper examines if and to what extent educational opportunities of immigrant and native youth are affected by the regional proportion of firm- versus school-based vocational education and training (VET) in Germany and Switzerland. As school-based VET systems, compared to training firms, select their applicants on grounds of school grades rather than ascriptive attributes, educational opportunities of immigrant students are expected to be higher in areas with a more school-based VET system. This assumption should at least hold true on condition that they provide sufficient secondary school certificates. The hypothesis is empirically tested using microcensus data from Germany and census as well as TREE data from Switzerland. The results point to complex structures of occasionally ethnic disadvantage fabricated through the VET system: Whereas immigrant students, particularly males, tend to be excluded in highly firm-based VET systems, they face problems to access more school-based VET systems because they can't provide the required school certificates.

International Conference on Youth Transitions

How VET Systems Provide Educational Opportunities

Educational opportunities and ethnicity in Germany and Switzerland considering the regional structure of VET supply

Sandra Hupka, Christian Imdorf & Holger Seibert
Basel, 12 September 2009

Research Problem

Educational opportunities and ethnicity in Germany and Switzerland

- Increasing problems for immigrant youth to access company-based apprenticeships
- Reduced transferability of their school credentials

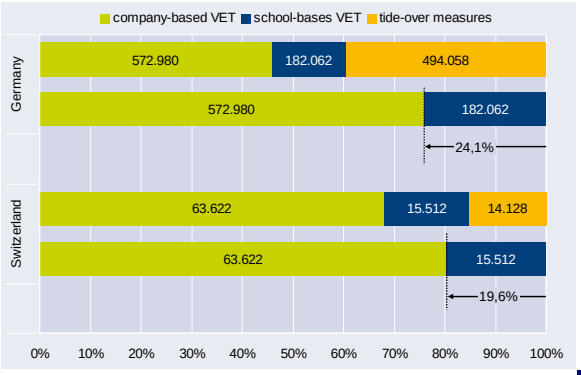
- Educational opportunities of disadvantaged immigrant groups depend on structure and density of educational offers:
  - PISA shows international variation of ethnic inequalities subject to different educational systems
  - Germany: varying educational offers subject to town districts impact on accessibility of upper secondary tracks for immigrant students.
  - Switzerland: Overrepresentation of immigrant students in lower secondary tracks is higher in cantons with small percentages of such schools

Educational opportunities of immigrant students depending on structure and density of educational offers

- Educational offers across time and regions structure educational opportunities of immigrant youth
- What about the impact of company- vs. school-based VET?
- Relating different selection processes of vocational schools and training companies to the relational supply of these vocational offers = institutional opportunities
- How does the regional offer of company-based vs. school-based vocational education impact on vocational opportunities of natives and immigrants ?

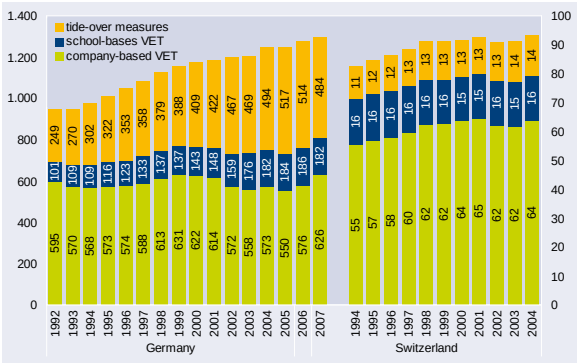
Structure and development of VET-Systems in Germany and Switzerland

Beginners in company- and school-based VET systems and in tide-over measures in Germany and Switzerland 2004



Source Germany: Federal Ministry of Education and Research; Switzerland: Federal Statistical Office

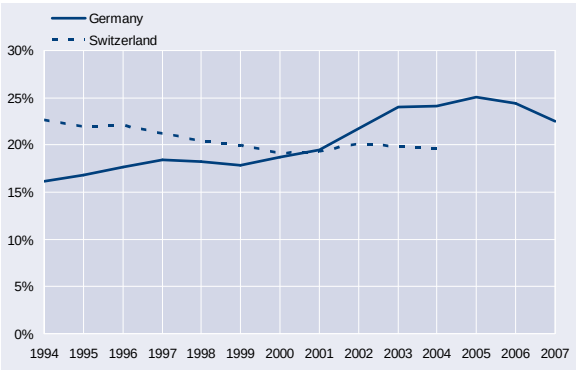
Beginners in company- and school-based VET systems and in tide-over measures (in 1.000) by year and country



Source Germany: Federal Ministry of Education and Research; Switzerland: Federal Statistical Office

7

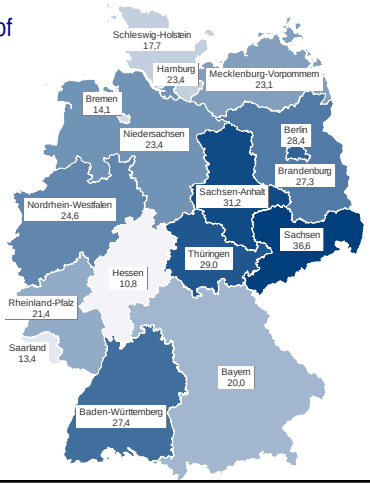
Development of school-based VET-Systems in Germany and Switzerland (vs. company-based VET)



Source Germany: Federal Ministry of Education and Research; Switzerland: Federal Statistical Office

8

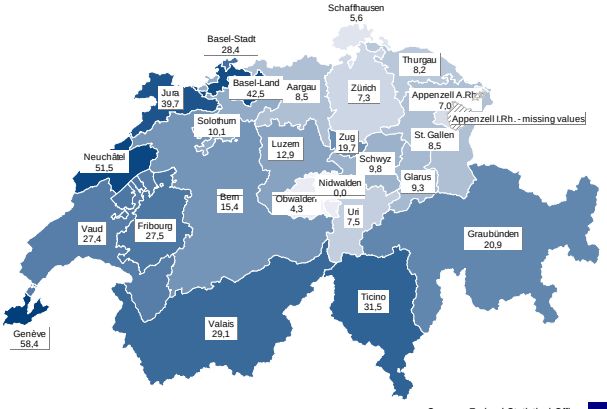
Regional percentage of school-based VET in Germany 2004



Source : Federal Ministry of Education and Research

9

Regional percentage of school-based VET in Switzerland 2000



Source : Federal Statistical Office

10

Understanding institutional opportunities: Theorizing VET entry selection

11

Entry selection in VET organisations

& why we think that companies and schools do it differently

- Basic requirements of **training companies**: Apprentices should
  - meet some general school requirements
  - be quickly integrated into the company's production process
  - not disturb production, services or sales
- Organisational Discrimination : To what extend do training companies exploit ethnic ascriptions to decide whether a job candidate may trouble the every day operation of the organisation?
- Some smaller training companies believe that 'foreign youth' potentially perturb the work organisation beyond their individual capacity and productivity. They may be considered
  - a misfit within the present work force (risk of "social costs")
  - difficult to be managed by instructors or masters
  - non-appealing to customers, or to attract disagreeable clientele

12

Entry selection in VET organisations

- Basic requirements of vocational schools
  - School certificates are most suitable to predict the "maturity" required for successful school-based vocational training (in general, vocational schools ask for higher school credentials than do training companies)
  - Entry selection to vocational schools depends less on ethnic ascriptions as an indicator for organisational trouble making
  - The formalization of entry selection is higher than in smaller training companies

13

Hypotheses

14

Hypotheses

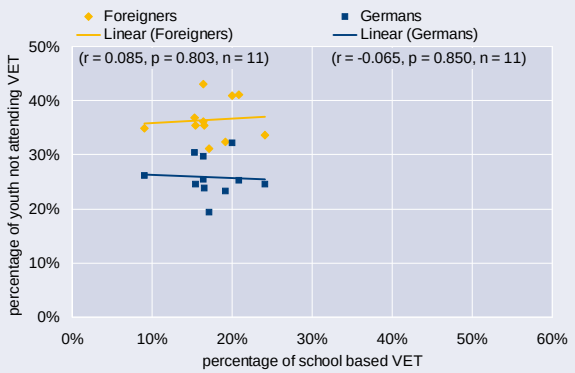
- School-based VET systems select on grounds of school grades rather than ethnic ascriptions
- Higher educational opportunities for immigrant youth in school-based VET systems
  - As school-based VET systems show higher educational prerequisites concerning school degrees, and as immigrants hold on average lower school degrees compared to natives, we control for the school degrees

15

Empirical Findings

16

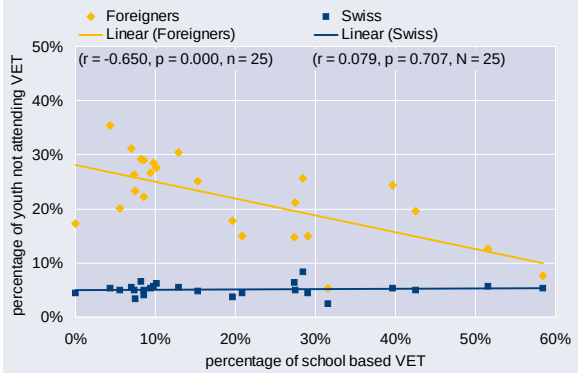
Germany: Percentages of school based VET and 17- to 19-year-olds not attending VET by Federal Land*



* Western Germany and Berlin; Source: Microcensus 1993-2004, Federal Statistical Office

17

Switzerland: Percentages of school based VET and 15- to 17-year-olds not attending VET by Canton



Source Population Census 2000, Federal Statistical Office

18

Multivariate Analysis

- Dependent variable:
  - individual attendance of VET (vs. not attending)
- Independent variables:
  - Nationalities
  - School leaving certificates
  - Percentage of youth not attending VET (macro variable)
  - Regional percentage of school-based VET
  - Interactions: nationalities / school leaving certificates x regional percentage of school-based VET
- Separate Models for men and women
- Comparison between Germany and Switzerland

Multivariate Analysis

- Germany: Pooled Microcensus Data 1993-2004
  - 18-year-olds, who have finished school
  - Birth cohorts: 1974 - 1986
  - Exlcuded: Students in general education, university students, individuals attending military of civilian service, school leavers holding upper secondary school degrees
- Switzerland: TREE waves 1-3, school leavers 2000
  - 17- to 19-year-olds
  - birth cohort: 1984
  - Excluded: individuals attending or entering gymnasium, individuals with missing values in one of the weaves, individuals who attended an integrated school in grade 9

Men: Logistic regression on attending VET vs. not attending VET by country (maximum-likelihood estimation, odds ratios)

	Germany[1]		Switzerland	
	Modell 1 exp(B)	Modell 2 [c] exp(B)	Modell 1 exp(B)	Modell 2 [c] exp(B)
Nationality				
Germany (ref.)	1.000	1.000	1.000	1.000
Turkey / former Yugoslavia / (Portugal)	0.474 ***	0.854	0.372 **	0.146 ***
Italy / Spain	0.704 *	1.319	1.009	0.302 *
remaining nations	0.413 ***	0.328 **	0.725	0.825
Schooling				
lower secondary school / basic demands (ref.)	1.000	1.000	1.000	1.000
no school degree	0.443 ***	0.488 ***		
middle school / extended demands	2.337 ***	3.234 ***	1.394	2.205 *
unknown	0.747 ***	0.505 +		
Amount of school-based VET		1.002		0.968 ***
Interactions				
school-based VET x Turkey / Jug. / (Port.)		0.968 ***		1.044 ***
school-based VET x Italy / Spain		0.967		1.051 ***
Fallzahl	14,257	14,257	1,452	1,452
Pseudo-R^2 (McFadden)	0.066	0.067	0.022	0.060
Chi^2	997.06 ***	1,011.71 ***	10.20 ***	27.23 ***
Improvement of fit	---	14.65 *	---	17.03 **
DF	17	24	5	10

[1] Western Germany incl. Berlin; [c]: clustered by Federal states resp. Cantons)
Significance: *** p < 0,001; ** p < 0,01; * p < 0,05; + p < 0,1
Source Germany: Microzensus 1993, 1995-2004, Switzerland: TREE panel

Women: Logistic regression on attending VET vs. not attending VET by country (maximum-likelihood estimation, odds ratios)

	Germany[1]		Switzerland	
	Modell 1 exp(B)	Modell 2 [c] exp(B)	Modell 1 exp(B)	Modell 2 [c] exp(B)
Nationality				
Germany (ref.)	1,000	1,000	1,000	1,000
Turkey / former Yugoslavia / (Portugal)	0,421 ***	0,391 ***	0,847	0,592 +
Italy / Spain	0,916	1,600	1,151	0,694
remaining nations	0,396 ***	0,321 ***	0,873	0,760
Schooling				
lower secondary school / basic demands (ref.)	1,000	1,000	1,000	1,000
no school degree	0,554 ***	0,411 ***		
middle school / extended demands	2,458 ***	1,511 **	2,756 ***	3,686 ***
unknown	1,239 *	0,986		
Amount of school-based VET		0,992		1,027
Interactions				
school-based VET x Italy / Spain		0,973 *		1,015
school-based VET x middle school		1,028 ***		0,980
n	12.696	12.696	1.677	1.677
Pseudo-R^2 (McFadden)	0,070	0,071	0,042	0,052
Chi^2	1.049,71 ***	1.060,42 ***	47,00 ***	57,90 ***
Improvement of fit	---	10,71	---	10,90 +
DF	17	24	5	10

[1] Western Germany incl. Berlin; [c]: clustered by Federal states resp. Cantons)
Significance: *** p < 0,001; ** p < 0,01; * p < 0,05; + p < 0,1
Source Germany: Microzensus 1993, 1995-2004, Switzerland: TREE panel

Conclusion

Conclusion

- complex structures of occasionally ethnic disadvantage fabricated through the VET system
- immigrant students, particularly males, tend to be excluded in highly company-based VET systems
- Are school-based VET systems more integrative?
  - Yes for Switzerland: male Yugoslavs have better chances in school-based VET systems
  - No for Germany: Turks have lower chances in school-based VET
  - The case of Switzerland supports our proposition of organisational discrimination against 'foreign youth' in training companies
  - In Germany however, school-based VET systems represent a systemic reaction to a particular shortage of company-based training positions in some Federal States. The few companies which offer training in this context are faced with a particularly high number of applicants and may react with pronounced organisational discrimination

Do I get a job?

Employment perspectives of young people after a two-year basic training course with Federal Certificate

Marlise Kammermann

University of Applied Sciences of Special Needs Education, Zürich, Switzerland

Abstract

Educational policies in Switzerland aim to provide a successful completion of an education and training programme on upper secondary level for 95% of young people.

Research shows that transition from lower to upper secondary level is especially difficult for young people with low academic achievements and individuals with migration background. This also leads to difficulties in the transition to employment.

The two-year basic training course with Basic Federal Certificate - a standardised biennial vocational training – has been established by the new Vocational Training Act in 2002. It is intended in particular to ensure upper secondary education and training for disadvantaged young people. The standardisation of curriculum and qualification procedures – two important characteristics of the two-year basic training – intend to assure the competencies of the trainees postulated by the labour market.

A longitudinal investigation of the University of Applied Sciences of Special Needs Education in Zürich observed the vocational development of graduates of the two-year basic vocational training with the Basic Federal Vocational Certificate in the retail sales and hotel sectors. It is compared with the vocational development of graduates of an elementary traineeship.

By means of longitudinal and comparative methods, the study provides information about the occupational situation, mobility and flexibility of persons with the new two-year vocational qualification and up-to-date information about the vocational careers of under-achieving young people.

The following research questions will be discussed:

- Which are the employment prospects of young people with a Basic Federal Certificate in comparison to graduates of an elementary traineeship at the end of their vocational training?
- How do employment prospects of people with Basic Federal Certificate and people with elementary training differ one year after completion of their training?
- What is the influence of the following determinants 'sex, vocational field, prior education, socio-economic status of the family, migration background, self estimated achievement and education satisfaction' (collected at the end of the training) on the job situation one year after completion of the training?

A sample of 319 trainees in a two-year basic training course with Basic Federal Certificate in the retails sales and hotel sectors were questioned two months before the end of their training. The assessment focused upon their educational and family background, on a self-rating of their vocational and personal situation as well as on their prospects. The integration into the labour market has been recorded a year later. Both assessments used elements out of the TREE-questionnaires. These results are being compared with the results of a sample of 183 graduates of an elementary traineeship in the same vocational fields.

Do I get a job?

Employment prospects after a two-year basic vocational training with Basic Federal Vocational Certificate
2005 - 2009

Marlise Kammermann
(University of Applied Sciences of Special Needs Education, Zürich)

Co-financing: OPET

Goals for successful transition

- acknowledged certificate of upper secondary education
- high level of skills
- stable and positive employment careers
- equality regarding sex, social background and region

(OECD, 2000)

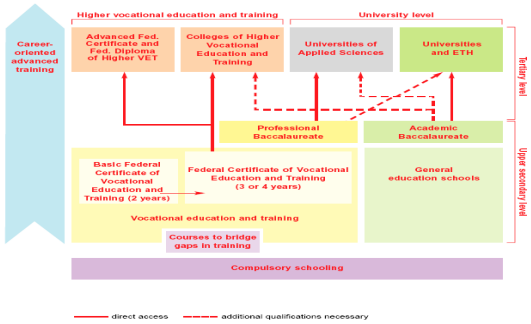
Difficulties in transition

- young people with a handicap
- young people with low academic achievements
- young people with migration background

(Imdorf, 2006, 2007; Hupka, Sacchi & Stalder, 2006; Bertschy, Böni & Meyer, 2007; Lischer, 2007)

Vocational Education and Training in Switzerland

Source: OPET (2008)



elementary VET - basic VET

elementary training (old)

+++ Special Needs Education oriented
+++ individualization
--- employment prospects
--- attractiveness

basic training (new)

+++ employment prospects
+++ interchangeability of VET programmes
+++ individual support
?? acceptance
?? population

Employment prospects and basic VET with Swiss Federal Vocational Certificate

Longitudinal study, 2006-2009:

- trainees elementary VET und basic VET,
- VET teachers and trainers, employers
- evaluation of the new standardized basic VET
- retail sales and hotel sectors
- comparison with elementary training

Research questions

- Employment prospects of young people with Basic Federal Certificate in comparison to elementary trainees at the end of VET
- Employment prospects of young people with Basic Federal Certificate in comparison to elementary trainees one year after completion of VET
- Determinant factors for job situation one year after completion of VET

7

Design

	2006				2007				2008			
	May	June	Aug.	Sept.	May	June	Aug.	Sept.	May	June	Aug.	Sept.
trainees el. VET: N=183 ba. VET: N=319			Element. VET				Basic VET					
trainees el. tr: N=134 ba. VET: N=211												
teachers N=43												
Trainers (firms) N=47												
employers N=40												

8

Sample elementary VET

per canton und profession (183)

canton / profession	retail sales		hotel sector	
	trainees (N)	percent	trainees (N)	percent
BE	20	19.2	15	19.0
BL/BS	10	9.6	10	12.7
LU	0	0.0	17	21.5
SG	10	9.6	10	12.7
SO	14	13.5	0	0.0
ZH	24	23.1	20	25.3
GE	11	10.6	0	00
NE	2	1.9	1	1.3
VD	13	12.5	6	7.6
Total	**104**	100.0	**79**	100.0

9

Sample basic VET

per canton und profession (N=319)

canton / profession	retail sales		hotel sector	
	trainees (N)	percent	trainees (N)	percent
BE	31	16.8	31	23.1
BL/BS	22	11.9	16	11.9
LU	0	0.0	13	9.7
SG	16	8.6	16	11.9
SO	21	11.4	0	0.0
ZH	36	19.5	30	22.4
GE	15	8.1	8	6.0
VD	22	11.9	11	8.2
FR	0	0.0	2	1.5
TI	22	11.9	7	5.2
Total	**185**	100.0	**134**	100.0

10

Secure prospect: at the end of VET

(approximately 2 months before the end of training)

elementary VET-trainees (N=182)
Secure professional prospect: 47%
secure job: **42%**
secure VET: ***12%***

Basic VET-trainees (N=319)
Secure professional prospect: 45%
secure job: ***31%***
secure VET: **26%**
Comparison of frequency distribution $p < .05$

11

Professional situation one year after completion of VET

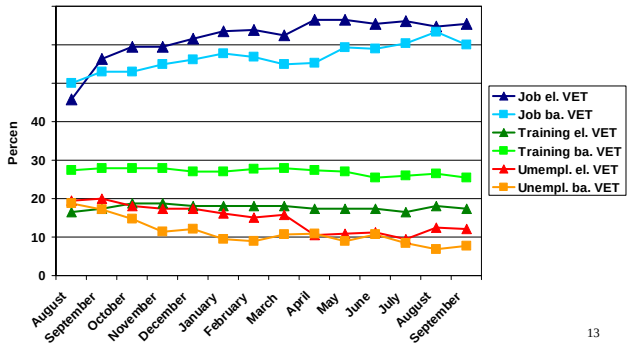
(approximately 14 months after the end of training)

elementary VET-trainees (N=134)
Secure professional situation: 81%
secure job : 64%
VET : ***10%***

Basic VET-trainees (N=211)
Secure professional situation: 88%
secure job : 60%
VET: **26%**
Comparison of frequency distribution $p < .01$

12

Pathway in first year after completion of VET



13

Job situation

	elementary VET		basic VET	
	trainees (N=134)	percent	trainees (N=211)	percent
Job in trained profession in training firm	**33**	24.6	***26***	12.3
Job in trained profession in other firm	34	25.4	76	36.0
Internship in trained profession	2	1.5	0	0.0
Job in other profession in training firm	0	0.0	2	0.9
Job in other profession in other firm	17	12.7	22	10.4
No job, something else	26	19.4	26	12.3

Comparison of frequency distribution: Chi-Square p=.009
bold: adj. residuals ≥ 2.6 rsp. ≤ -2.6.

14

Employment conditions

	elementary VET		basic VET	
	trainees (N=86)	percent	trainees (N=122)	percent
Permanent employment	75	87.2	102	83.6
Temporary employment	11	12.8	20	16.4
	(N=83)		(N=121)	
10-50%	5	6.0	6	4.9
60-80%	16	19.2	24	19.9
90-100%	62	74.7	91	75.2

15

Salary

	elementary VET		basic VET	
	trainees (N=83)	percent	trainees (N=121)	percent
below 3'000 Fr.	**24**	33.3	***18***	15.3
3'000 – 3'500 Fr.	35	48.6	55	46.6
over 3'500 Fr.	***13***	18.1	**45**	38.1

Comparison of frequency distribution: Chi-Square p=.002
bold: adj. residuals ≥ 2.6 rsp. ≤ -2.6.

16

VET situation

	elementary VET		basic VET	
	trainees (N=134)	percent	trainees (N=211)	percent
Further VET in trained profession in training firm	***6***	4.5	**34**	16.1
Further VET in trained profession in other firm	7	5.2	21	10.0
Other further training	9	6.7	4	1.9

Comparison of frequency distribution: Chi-Square p=.001
bold: adj. residuals ≥ 2.6 rsp. ≤ -2.6.

17

Determinants of employment status (logistic regression, N=274)

Independent variables	Exp(B)
profession	2.039
achievement in VET	1.024
migration background	.540
sex	.878
socio-economic status	.994
school background	2.905**
satisfaction	.986

**P < .01

18

Determinants of employment status (logistic regression, N= 325)

Independent variables	Exp(B)
Depressive mood	1.264
Positive attitude towards life	1.238
Intrinsic work values	1.031
Extrinsic work values	.481*
Family related values	1.415
Self-esteem	1.163

*P = .05

19

Conclusions

- Unsecure prospects at end of VET
- Better permeability to further training for basic VET
- No significant difference regarding employment, but increased mobility and higher salary for basic VET
- Slow learners are more likely to be without job

⇨ **Good solution for the better of the low achievers**

20

Literature

- Bertschy, K., Böni, E. & Meyer, T. (2007). An der zweiten Schwelle: Junge Menschen im Übergang zwischen Ausbildung und Arbeitsmarkt. Ergebnisbericht des Jugendlängsschnitts TREE, Update 2007. Bern: TREE.
- Hupka, S.; Sacchi, S.; Stalder, B.E. (2006). Herkunft oder Leistung? Analyse des Eintritts in eine zertifizierende nachobligatorische Ausbildung anhand der Daten des Jugendlängsschnitts TREE. Working Paper.
- Imdorf, Ch. (2007). Die Bedeutung sonderpädagogischer Bildungstitel bei der Lehrstellenvergabe in KMU. Vierteljahresschrift für Heilpädagogik und ihre Nachbargebiete, 76(2), 165-167.
- Imdorf, Ch. (2006). Der Ausschluss ‚ausländischer' Jugendlicher bei der Lehrlingsauswahl. Ein Fall von institutioneller Diskriminierung? Working paper.
- Lischer, E. (2007). Perspektiven für den Übergang von Menschen mit Behinderungen. Länderbericht Schweiz. In: J. Hollenweger, P. Hübner & K. Hasemann (Hrsg.). Behinderungen beim Übergang von der Schule ins Erwerbsleben. Expertenberichte aus drei deutschsprachigen Ländern. Zürich: Verlag Pestalozzianum.
- OECD (2000). From initial education to working life. Making transitions work. Paris: OECD.
- OPET (2008). Facts and Figures. Vocational Education and Training in Switzerland. Bern: OPET.

21

More information:

www.hfh.ch > research > B.5

contact:

marlise.kammermann@hfh.ch

22

The situation of young professionals: using the example of school leavers in Berlin

Sabine Kergel, Rolf Hepp
Freie Universität Berlin, Germany

Abstract

Pupils especially with a low qualification profile, like they have when absolving the German Hauptschule (in the three-part German school system the lowest level secondary school), have at least in the conurbations very bad chances to enter the labor market. Vocational training, qualification activities, and integration in the so called "second labor market" determine their situation at school and their future prospects.

By reference to the situation of secondary modern schools (Hauptschulen) in Berlin´s boroughs with big social problems the lecture will describe the interaction of the social criteria and exclusion determined by school. Cultural and habitual manifestations as well as rashly underclass imputations discriminate these groups in a double way, instead of sociologically analysing the handicaps, these pupils are subject to and the social coherences, they are contained in. In the analysis motives and realistic assessments of the future perspectives will be used for a model of describing the situation.

The group of youth and young adults is extra deeply affected by the expansion of atypical working conditions because they have still to be integrated into the professional everyday life. Being apprentices and job starters in contrast to older employees already their first experiences at the labor market are characterized by atypical labor contracts and social insecurity. Problems while searching for an apprenticeship and trainee place or temporary contracts under tough conditions are on their spot and are dominant features of their future perspectives and their attitude to life to growing extent. The lecture will bring problems and effects influencing the stricken youth into prominence.

The continuously deteriorating situation on the job market as well as on the vocational training market is one of the reasons why the transition from school to profession is becoming more and more difficult for young people, a situation which is characterised by increased risks and instability. In terms of integration into professional life, more or less all the adolescents are affected by this situation but specially those young adults who have got either no or only secondary modern school qualification [Hauptschulabschluss] face the hardest consequences. A high proportion of the adolescents affected are young people with a foreign and/or an immigrant background. Furthermore, another significant characteristic of the situation of those young professionals is that year by year there are less and less proposals by companies for vocational trainings which makes the condition for the school leavers even worse. As all of them depend on further company-related trainings or apprenticeships and since there is hardly any other possibility they can fall back upon, this development does not only refer to young school-drop outs but also to those ones who do have got a secondary modern school qualification [Hauptschulabschluss].

"In the year 2000, a year of economic revival, 38.7% of the 15- to 25-year old ones were still employed within the framework of social insurance contributions while in 2007, another year of economic upturn, this number had come down to only 33.7%. There is a similar situation regarding those ones in vocational trainings or apprenticeships. In the year 2000 16.2% of them still had a job in contrast to only 15.5% of the 15- to 25-year old ones in 2007." (DGB [German Federation of Trade Unions] Studie 2008, p. 7)

Additionally, due to this situation of the job starters, there has been a structural shift from the dual education system to a transitional system during the last years. But the schemes of this transitional system are characterised by the fact that they don't lead to any recognised / certified qualification. In a best case scenario these schemes could contribute a lot to an improvement of personal expertise but obviously those measures rather keep the adolescents constantly in a state of motion having their status quo of a precarious existence floating between the poles of integration/exclusion and hope/destabilisation. Particularly those adolescents with an

immigrant background are dependent on measures of the transitional system or on external arrangements. Every fourth applicant with migration background joins educational courses of this 'opportunity-improvement-system' that means basic vocational or school education or internship. This includes vocational preparation courses provided by the chool and by the Employment Agency as well as internships and the attendance of other vocational schools. Generally, the participation in such kind of courses might be helpful for further educational prerequisites but especially in this context this contributes much more to the manifestation of their transitional status thus reducing their hope for a real vocational qualification. Furthermore, the fact that 50% of the young persons with a migration background belong already to the so-called 'old- or repeat-applicants' means that half of the young women and men have got minimum one year's disillusioned and discouraging experiences of searching for apprenticeships or vocational trainings.

53% of the young employees up to 30 years had already at least one limited employment contract in relation to 33% above 30 years. Young people are increasingly affected by temporary employments as well: that is 15% of the ones below-thirties in relation to 8% of the older ones. In addition to this kind of planning insecurity due to short-time contracts there are insufficient perspectives for (career) development as well as low income: 38% of the younger employees get monthly gross salaries of below 1500 Euro – in spite of a full-time employment.

According to a study of the Federal Ministry for Labour and Social Affairs after completion of their education only 31% could change smoothly into a permanent full-time employment while 11% had to accept an atypical employment during their phase of career entry. For another 31% the transition was even more difficult. Almost one third could get into a full-time employment on detours that is only via atypical employments like internships, temporary jobs etc. This is why 43% manage their career entry only on roundabout ways. Another 25% of the young qualified professionals are still in a transition period. They change from temporary employments, internships or – often unintended - part-time or free-lance jobs to unemployment and vice versa.

Furthermore, it is remarkable that particularly the 18- to 24-year-old-ones, in spite of their shorter employment history, are affected by atypical periods with unemployment or without any regular employment by more than 21%, that is twice as much as the 30- to 34-year-old-ones. This means: the younger the surveyed were, the more they had experience with precarious employments. This shows that precarity is continuously increasing at a very fast pace.

At this point, due to the special difficulties of the adolescents at school as well as when searching for a job, there is a particular area of social problems emerging developing which can't be solved any longer by the respective institutions with traditional procedures.

In this context the difference between the German Employment Agency [Arbeitsagentur; former: Arbeitsamt] and the so-called German Jobcenter plays a vital role resulting from a kind of doubling of the Employment Agency (or rather splitting the former Employment Office into the Employment Agency on the one hand and the Jobcenter on the other) due to the 'Hartz IV' laws in Germany [= German unemployment benefit paid after the first 12-18 months of unemployment]. The vocational counsellors of the Employment Agency have got a specific expertise which makes them consider enquiries by the Jobcenter service team rather as a kind of interference than as a support for the persons concerned. In this context any suggestion by the Jobcenter counselling teams are easily understood by the occupational counsellors of the Employment Agency as doubting their competence because the staff members of the Jobcenter are considered to have a less professional approach. They come from all walks of life with different educational backgrounds and expertise, that means the teams of the Jobcenters consist of former case managers and employees of the social welfare office, social workers, academicians from different fields and employees of different kinds of administrations. Besides, it is a concurrent fact that a part of the Jobcenter employees themselves have got only temporary work contracts with less payment than the employees of the Employment Agency which shows another differentiation between Jobcenter and Employment Agency regarding their employees. On the whole, the fragmentation of the German employment office reflects the fragmentation of the labour market.

The professional approach of the Employment Agency includes the assumption that specific capabilities and skills should have been attained by the youths in advance, otherwise they would fail even when searching for further education possibilities and apprenticeships while the procedures of the Jobcenter imply dimensions of an embedding of rather arbitrary elements. These ambiguities regarding the measures of the Jobcenter with their possibility of various decisions establish uncertain procedures which either may contribute to extend

support and assistance for the persons concerned when accepting their handicaps on the one hand or on the other hand to intensify exclusion tendencies when applying restrictive interpretations in similar cases.

Due to the shift of the responsibilities which regarding the adolescents are fixed within the procedures of the Jobcenter in contrast to those ones of the Employment Agency, those provisions being valid according to the German Child and Youth Welfare Act [Kinder- und Jugendhilfegesetz <KJHG>] which is meant for the development and education of adolescents are being bypassed by the regulations and schemes of the Jobcenter. This kind of shifting of priorities in the case of adolescents who are entitled to Arbeitslosengeld II [German unemployment benefit paid after the first 12-18 months of unemployment] shows again the tendency and the solidification of the so-called secondary labour market.[6]

Having to start from such a position may result for the benefit recipients of Hartz IV in forms of a kind of social heritage which will be handed over to the next generation like a baton. The fact that the Jobcenter has got its own structure with specific priorities regarding the young people that are quite different from those of the youth welfare office, brings about lots of conflicts of interest. The top priority of the Jobcenter is to integrate the unemployed young people into the labour market in a fast, effective and cost-efficient way. But due to their social and individual limitations the clients would need social support and assistance first of all which they are not provided with. Even meeting those requirements does not necessarily mean that the measures of this transitional system do really work. This is why the adolescents may get disillusioned and eliminated from the labour market. Earlier there had been several possibilities for social benefit recipients, while nowadays the perspectives have shifted due to the statutory rules going along with the Arbeitslosengeld II [German unemployment benefit paid after the first 12-18 months of unemployment].

The career advancements offered by the Jobcenter to Arbeitslosengeld II recipients in general and in particular to young unemployed are not necessarily related to those qualifications and apprenticeships available in the dual education system.[7] In this way those young people who are anyway deprived in terms of the premises of a 'knowledge-based society' and thus already excluded, are being left behind and sent off to the secondary labour market. Due to this situation illegal and unstable employments become a part of the lifeworlds of those adolescents with low or bad school-leaving qualifications, a situation which contributes even more to the spreading of social inequalities. In addition, the situation regarding the education sector is so much complex and confusing that the young people are hardly able to examine and analyse current proposals on their own which means that those young people are mostly unable to cope up with it. In order to find out their own particular opportunities within the framework of the vocational schemes, how to implement those as well as their individual possibilities of development, they would need adequate assistance and support. Apart from that, there is still a lot of self-motivation and personal initiative necessary which is generally contradictory to their own experiences and does in no way correspond to their particular living conditions. This is another reason why a great deal of proposals like those ones of the Employment Agency would not always be accepted even if there were legal guidelines available. For entering into such types of education schemes certain normative conditions are to be fulfilled which due to the contexts of their social experience these young people are hardly able to meet with**.** Due to these kinds of criteria they are constantly in a defensive position which becomes very much prominent particularly in situations of counselling and assistance where the main focus seems to be only on their deficiencies, especially when the young unemployed did not act according to the guidelines given before**.**

The fact remains, that there will be significant restrictions for the adolescents if they don't go by the instructions and conditions of the Jobcenter. This gives them the impression that each of their steps into the world of labour seems to be accompanied by risks and threats which are reflected in cuts of their anyway insufficient benefits that way intensifying their insecurity. This is why Stefan Lessenich points out that the Jobcenter's proposals for integration in the form of 'let us help you' often are often being deciphered by the young

[6] Those are for instance working opportunities with additional cost compensation that are set in § 16 Abs. 3 SGB II (Social Code, Book II). These working opportunities are features of the former social welfare (§ 19 BSHG: "charitable additional work") or job opportunities sponsored/paid by governmental or other official administrative authorities = artificially created job opportunities for long-term unemployed. Those were never (since the introduction of SGB II) offered by the social welfare and other institutions in this extent and are therefore rarely known in public sight. In this case it can happen that the Jobcenter itself takes on the position of an employer.

[7] combines apprenticeships in a company and vocational education at a vocational school in one course.

people as a kind of intimidation, an effect which contradicts the demands for integration like 'support/encourage and challenge' and will ultimately lead to a discourse of compliance. Apparently those handicaps and specific experiences that these deprived groups might have or had with the conventional education system are not being at all taken into account when demanding particular prerequisites from those professional newcomers with secondary modern school qualifications [Hauptschulabschluss] or even without any appropriate proof of qualification. Castel points out by referring to adolescents with migration backgrounds: *"They have attended school and are not uneducated 'savages', but the reject products of the education system... School still works according to the republican principle of equal opportunities and a performance-based advancement but it can't ensure the equality of social groups which would be necessary for achieving this goal. This why it specially disappoints those ones who believe in it but they have got the cards stacked against them thus not being able to play its prescribed game."* (Robert Castel, Negative Diskriminierung, Hamburg 2009, p. 45 et.seq.)

As the tripartite education system in Germany as well as in France offers only limited possibilities of participation to some parts of the population due to social exclusions / 'shut-downs', the affected young professionals in their form of 'social products' of those education strategies are being transferred into specific measures and control mechanisms that don't absorb, but instead intensifies social imbalances. This way the tendencies of resignation of the adolescents and their social aloofness regarding support or assistance together with their realistic understanding that they have been sidelined are growing as well. But it is still amazing that the future visions of those young people find their metaphorical expression in petty bourgeois or lower middle class images following exactly those criteria for integration which are not only considered as quite unrealistic but are also massively jeopardised due to precarious living conditions. Taking the 'normal' biography or CV as a referent shows that vocational counselling is still based on the idea of normal employment with the associated social notions. That is why it would be important to support those professional newcomers by preparing them for the demands of the present precarious conditions of life. But at this point the questions arise whether those forms of a greater flexibility mean anything to the adolescents concerned at all; and whether it is specially their orientation or adjustment to those badly-paid and uncertain jobs that may cut their future prospects.

The flexibility of the young professionals demanded by the common practice of placement measures of the Jobcenters is mirrored in the flexibility of the employees who are constantly confronted with reorientations, restructurings, revisions and new definitions of their workplaces which could be retained only on the basis of certain forms of adjustment, of opposition and a reflexive kind of reappraisal. Because of continuous outsourcing activities of the public services and of the administration, the positions of the employees there have also changed quite a lot. They have been incorporated into the system of general social insecurity and precarity as well thus being subjected to the mechanisms of fragmentation of the labour market as they are a part of it themselves. Since the Jobcenter counsellors act on the basis of their own professional position and identity, those ones who consult as well as those ones being consulted are both affected by the problem of social precarity and hazard. Aspects of utilisation and application, budget cuts and cost-benefit-calculations are the particular factors which spread control mechanisms all over the system.

Children's School Enrolment: How Do Opportunity Structures Within and Outside the Family Affect First Graders' School Adjustment?

Irene Kriesi, Regina Scherrer, Marlis Buchmann
University of Zurich, Switzerland

Abstract

Our paper investigates the conditions facilitating first graders' school adjustment. We examine the extent to which opportunity structures within and outside the family (e.g. social background, parenting style, leisure activities, peers) affect children's school adjustment directly and explore the extent to which their effects are mediated by school-relevant individual competencies and personality traits (e.g. conscientiousness, knowledge). Answers to these questions are still scarce in sociological research. Previous studies have mainly focused on the antecedents and consequences of children's cognitive skills. They also provide evidence that long-term school success strongly depends on early school adjustment processes (e.g. Entwisle et al. 1993). Given the importance of early school adjustment, a better understanding of this early transition in childhood is pivotal. From the perspective of socialization theory, we claim that early school adjustment is shaped by the interplay of familial opportunities, leisure, and peer relations and by individual dispositions and competencies.

Data are taken from the first two waves of the Swiss Longitudinal Survey of Children and Youth (COCON). This is a representative longitudinal study investigating transitions in the early life course and the development of social competences of three birth cohorts. The analyses are based on the youngest cohort (N=1273) who were 6 and 7 years old at the time of the surveys in 2006 and 2007. The data also includes information from the primary caregivers and teachers as well as from the children themselves.

Results based on path models show that familial opportunities facilitate children's school adjustment directly. They also play an indirect role by affecting opportunity structures outside the family as well as school-relevant individual competencies, such as conscientiousness and previous knowledge, which in turn affect how well children adjust to the new school environment.

School Entry

How Do Opportunities Within and Outside the Family Affect First Graders' School Adjustment?

Irene Kriesi, Regina Scherrer, Marlis Buchmann

University of Zurich

Paper presented at the International Conference on Youth Transitions.
University of Basel, 12 September 2009.

Universität Zürich

Research Questions

- How do family characteristics and opportunities outside the family affect children's adjustment to everyday life in school?
- To what extent do children's school-relevant competencies mediate the effects of family characteristics and opportunities outside the family?

Definition of School Adjustment

- Adjustment to everyday school life including the establishment of a good relationship with the teacher and getting used to do homework

➡ We focus the psychosocial aspects of school adjustment

Background

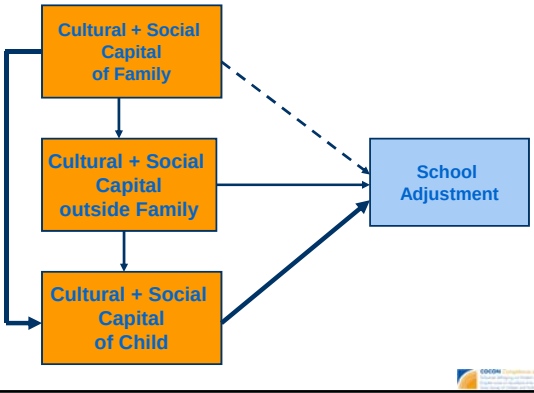
- School entry = first major institutionalized transition in children's life course
- Very little sociological research
- Existing studies focus on antecedents and consequences of school performance/attainment
- Children's early school adjustment affects long-term school success (e.g. Entwisle et al. 1993, 2007

Theoretical Considerations

Cultural and Social Capital (Bourdieu, Coleman)

- **Definition:**
  Ressources determining the scope of individual action
- **Types:**
  Material capital = structural side
  Incorporated capital = functional side
- **Assumptions Based on Socialisation Theory:**
  The cultural and social capital within and outside the family affects children's socialisation, influencing school adjustment directly and indirectly, mediated by children's individual ressources.

Simplified Theoretical Model



Cultural and Social Capital within the Family

- **Cultural Capital:**
  - Parent's Education
- **Social Capital:**
  - Parenting Style
  - Single Parent
  - Older Siblings

Cultural and Social Capital Outside Family

- **Cultural Capital**:
  - Kindergarten/chrèche attendance
  - Extracurricular education

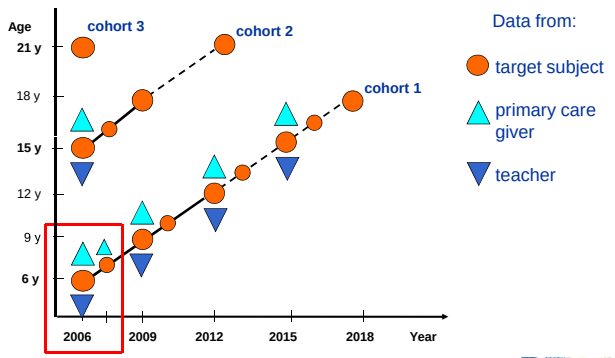
Cultural and Social Capital of Child

- **Cultural Capital**:
  - School-Relevant Knowledge
  - Productive Competences (e.g. conscientiousness)
- **Social Capital**:
  - Self Competences (e.g. perceived social acceptance)
  - Social Competences (e.g. prosocial behaviour)
  - Number of Friends in Class

Data

- **Swiss Survey of Children and Youth COCON**
  (=Acronym for Competence and Context)
  ➡ Longitudinal data, representative for the German and French speaking part of Switzerland
- **N = 1273 Children** and their primary care givers
  ➡ Children born between Sept 1999 and April 2000
- Analyses based on **wave 1 and 2,** restricted to children who entered school in Summer 2006
- Data based on CAPI/CATI interviews, questionnaires

Survey Design COCON



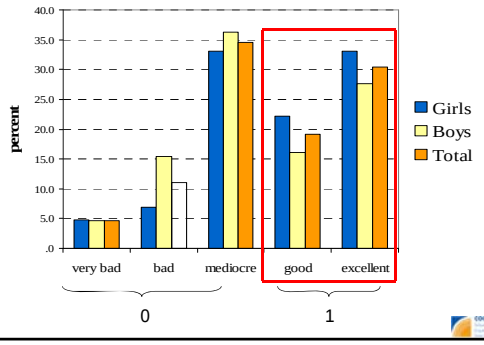
Measures and Method

- **Path Model**
- **Dichotomous Dependent Variable:**
  Good (1) vs. mediocre/bad (0) school adjustment at age 7

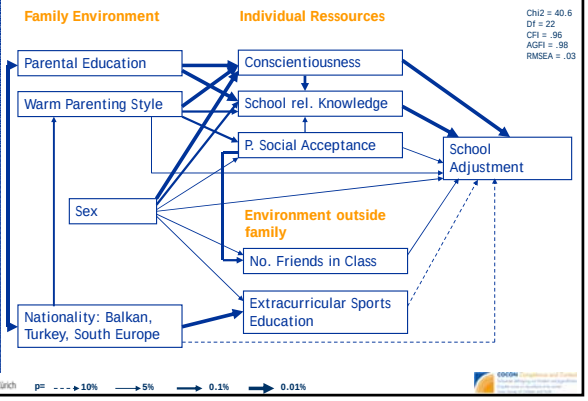
  Index of three items (primary care giver rating); a=.61:
  - Child has adjusted to school well
  - Child has quickly established a good relationship with teacher
  - Child has quickly become used to doing homework
- **Independent Variables:**
  Measured at age 6 (exception: no. of friends)

Transition to First Grade: Descriptive Results

Transition Quality



Transition to First Grade: Multivariate Results



Conclusions

- School adjustment strongly depends on children's own capital in the form of school-relevant competences. Intelligence is irrelevant.
- 7 year old children's competencies are mainly acquired within the family. Parenting practices play a greater role than parent's education.
- Girl's advantage is already apparent in grade 1.
- Future research will tell whether a positive transition experience will lead to better school achievement.

THANK YOU FOR YOUR ATTENTION!

COCON Competence and Context
Schweizer Befragung von Kindern und Jugendlichen
Enquête suisse sur les enfants et les jeunes
Swiss Survey of Children and Youth

Universität Zürich

Longitudinal youth survey research today and tomorrow: what lessons can be learned from TREE?

Thomas Meyer

Co-head of project *TREE, Institute for Sociology, University of Basel*

Abstract

TREE is the first large scale youth cohort survey at national level in Switzerland. Apart from the Canadian Youth in Transitions Survey (YITS) in Canada, TREE is the only survey worldwide having followed up a national PISA 2000 sample on its way through post-compulsory education and training into adulthood.

This pioneer status has its advantages, but also its drawbacks. This presentation briefly outlines:

- The "status quo ante"/research context of the 1990s, before TREE was launched
- The particular features of TREE and its role in the field of transitions research both nationally and internationally
- TREE's main methodological strengths and challenges
- TREE's main research questions, foci and results obtained so far
- The focal points of ongoing analysis projects
- "Further research is needed": thematic research gaps to be filled

The presentation then goes on to outlining perspectives of/for TREE in the near, mid- and long term future, particularly:

- Further survey waves of the cohort under study since 2000
- Launching new school leaver cohorts
- Developing & expanding the TREE instruments/questionaires
- TREE as an element of a Swiss National Education Survey in the footsteps of the German NEPS (National Education Survey Panel)
- Making TREE comparable to large scale youth cohort surveys in other countries.

Longitudinal youth transition research today and tomorrow: Which lessons can we learn from TREE?

Thomas Meyer
Co-head of project

Brief table of contents

- How TREE has developed during the past 10 years, and on which background
- TREE's main methodological strengths and challenges
- TREE's main research foci and results
- Strategies and plans in the near and far future
- The TREE structure and how you can „join the club“ (if you haven‘t already)

Status quo ante

- No longitudinal studies on youth transitions in Switzerland
- Cantonal level: Zurich, Ticino
- Paradox: Major reforms of post-compulsory education system without scientific knowledge of its working dynamics

„Birth attendants“ to TREE

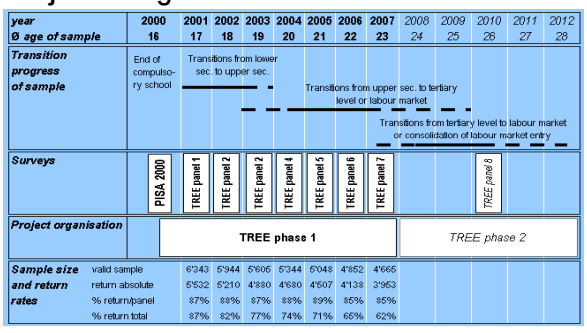
- OECD Country Review on Transitions

  “The opportunity should not be missed to equip Switzerland with a longitudinal survey of transitions at national level (...) To understand young people’s decisions and options, and to take them into account in policy decisions, appropriate analytical instruments are needed. (...) The data are essential in understanding trajectories into the labour market and young people’s use of the training system.”
- PISA (2000): Sample & Base survey
- NRP 43 „Education & Employment“ (the two „E“s of TREE): (Co-)Funding

Main research questions

- Detailed description of the complex pathways through post-compulsory education into adulthood and the labour market (first time at national level)
- Identifying factors facilitating or hampering successful transitions

Project design



Concepts & Scales

Description of educational and labour market situation and pathways

Strains and resources in education and work

Socia' support in schools and VET training firms

Gender and ethnic (in)equality in schools and VET training firms

Competence of trainers, teachers and supervisors

Job search and application strategies

Personal characteristics, aspirations and plans (in regard to education)

Concepts & Scales (2)

Critical live events (in regard to education, work and private life)

Health and well-being (general, topical & drug abuse)

Fluctuation/dropout tendency (education/training and job)

Achievement and academic success

Financial situation

Family situation/status

Methodological challenges of following up PISA:

Assets

- Base survey & sample design taken care of (research economy)
- Sophisticated (literacy) skills measures (as predictors) for further use
- Perspective that other PISA 2000 participant countries may also carry out follow-up studies (internationally comparative research)

Methodological challenges of following up PISA:

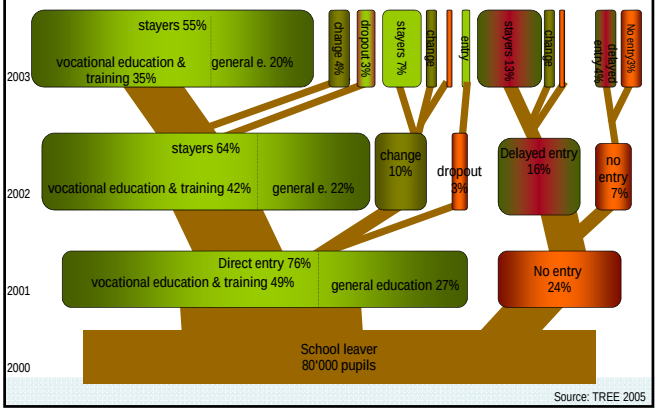
Drawbacks

- 1st observation point (PISA base survey) too late for a complete view of lower to upper sec. transition
- No influence sample design/structure
- Little to no influence on instrument development of base survey
- No influence on field phase of base survey (limits to reachability of sample members)

Further methodological challenges

- Sample attrition and biases
- „Inventing" longitudinal youth research in Switzerland: the loneliness of the pioneer
- Breadth vs. depth
- Trying to avoid to (re)invent the wheel (use of established, tested instruments wherever possible)
- Heterogeneity of survey design (written questionnaires vs. telephone interviews)

Research foci: Post-compulsory pathways



Research foci & results (2)

„1st threshold"

- Substantial dysfunctions at interface between lower & upper sec. in Switzerland (largely due to quantitative and qualitative rationing of educational

Research foci & results (3)

„2nd threshold"

- Generally good labour market absorption and job-skills match of upper sec. VET graduates, even for low achievers
- Strong „genderisation" of education/transition pathways
- Substantial gender-related wage discrimination from the very beginning of professional careers

Research areas to be developed

- Transition dimensions beyond education and work (leaving the parental home, family founding, parenthood, etc.)
- Dynamics and sustainability of labour market entry and careers
- Risks/opportunities of (dis-)continuous pathways
- Dig down deeper – within & between disciplines
- Methodology: Complexity match of data & methods

Further steps: short to mid-term

- 8th survey wave PISA 2000/TREE cohort in 2010 (in preparation); improvement/extension of the questionnaires (call for contributions until 30 Sept.)
- 10 years observation period (age 16 to 26): data available 1st semester 2011
- Data introduction workshops for students/users
- Closer cooperation/synchronisation with other youth panel surveys: YITS, LSAY, „Génération", NEPS

Further steps: long term

- 9th survey wave PISA 2000/TREE cohort in approx. 2014 (age 30)
- Launching another school leavers cohort („TREE II") in about 2012/13
- Integration of „TREE II" in a national education panel scheme similar to the German NEPS (National Education Panel Survey)

Getting involved with TREE (data)

- Easy access to public use files of data (waves 1-7 to date) via TREE in Basel or FORS data archive in Lausanne (as of 2010)
- „Customer support" by TREE staff
- Survey instrument development: Call for contributions until 30 Sept. 2009
- Exchange with other researchers working on the TREE data: the TREE research network

Further information

www.tree-ch.ch

Work Values during the transition from school to work

Markus P. Neuenschwander (1), Barbara E. Stalder (2)

(1) University of Applied Science Northwestern, (2) University of Basel, Switzerland

Introduction:

Starting from self-determination theory (Deci & Ryan), educational contexts (high school, university) and work contexts (VET, work life) have specific modes of motivation regulation. Basic needs like autonomy, competence and social affiliation with a group are basics for self-determination, intrinsic motivation and intrinsic work values. In contrast, expected or vicarious reinforcement (reward and punishment) result in extrinsic motivation and extrinsic work values.

Educational contexts focus on the learning process and the training of academic competence. The goal is personal growth, to acquire personal knowledge and competence and to increase intrinsic work values. In contrast, in work contexts results and products of work play an important role – competences are important tools to achieve these results. The norm is to produce external results in an enterprise. Extrinsic work values are important. This argument let us categorize the many educational and work contexts into two ideal types: self-determined contexts include educational contexts like gymnasium and high school, university and college. Result based contexts are the work in a firm including VET and work life.

What is the interrelationship between context and work value change? Following the Socialization Hypothesis, implicit and explicit norms in socializing contexts influence the development of work values. Experiences in different contexts raise corresponding values. Reactions of persons of reference influence adolescents to internalize their values. Self-determined contexts strengthen intrinsic work values. Result based contexts strengthen extrinsic work values. Following the Selection Hypothesis, adolescents choose new socializing contexts based on their intrinsic and extrinsic work values. Students with intrinsic work values prefer contexts where they can satisfy their need of competence, autonomy and social affiliation (higher education). Students with extrinsic work values prefer contexts where results and reinforcement is central.

Method:

To test the socialization hypothesis and the selection hypothesis, we used panel data in waves three, five and seven from the Swiss youth study TREE (Transition from Education to Employment). We based our analyses on the sub sample of 1206 students who started their post-compulsory education in gymnasium or in VET and finished their education directly. Extrinsic work values (e.g., pay, prestige, and security), intrinsic work values (e.g., interest, autonomy, social relations), and family values (e.g. marriage, family-building) were measured by three scales.

Results:

We found only few students changing between self-determined and result based contexts in age 18 to 22. Consistent with self-determination theory, students in self-determined contexts develop higher intrinsic work values and lower extrinsic work values than students in result based contexts. After having finished upper secondary education, intrinsic and extrinsic work values decrease, but family values increase.

To test our main hypothesis, we ran cross-lagged panel analyses with structural equation modeling with the dichotomous variable context (self-determined vs. result based) and intrinsic work values in waves 3, 5 and 7. We found high stability of the context variable between the three points of measurement. We also found high stability of extrinsic work values. Between waves 3 and 5, the socialization hypothesis was supported: We found a weak but significant cross-lagged path between age 18 and age 20 from the context to the work values, whereas the path from the intrinsic work value in age 18 to the context in age 20 was not significant. The difference between VET and gymnasium in age 18 positively predicts intrinsic work values. Students in self-determined contexts develop higher intrinsic work values than students in result based contexts. Between age 20 and age 22 (waves 5 and 7), the results supported the selection hypothesis: The stabilities of context and intrinsic work values were both high, but the cross lagged path from the intrinsic work values in age 20 to the context in age 22 was much stronger than the path from the context in age 20 to the intrinsic

work values. The pattern result was replicated for extrinsic work values, but here result based contexts positively correlated with extrinsic work values.

Conclusions: If institutions like upper secondary education define normative pathways, values play a weaker role changing the adolescents' pathway (socialization hypothesis). If educational pathways are weakly structured by institutions (transitions after upper secondary education), students change between educational and work contexts because of their work values (selection hypothesis).

Re-entry after dropout from apprenticeship training

Evi Schmid
University of Fribourg

Abstract

In Switzerland, about one out of five apprenticeship contracts is terminated early, without the young persons having achieved the aspired degree on the upper secondary level (Stalder & Schmid, 2006). Drop-out from vocational education can be defined as non-normative stressful life event (Filipp, 1995), which asks for specific actions and coping strategies. Young people are challenged to find access to another upper secondary education programme within rather short time, because the longer they fail to re-enter education, the more they risk remaining without upper secondary certificate.

According to developmental psychology, the way persons cope with stressful life events is influenced by socioeconomic factors (e.g. gender, age and nationality), former experiences with other life events, and intrapersonal and extrapersonal resources (Filipp, 1995). Specifically, social support from the family, from friends and work colleagues may play a dominant role while coping with the new situation (e.g. Sarason, Sarason & Pierce, 1990). Emotional, instrumental, informational or appraisal support (House, 1983) helps the individual to increase his or her ability to cope with the critical event. This can happen directly, for instance, if parents assist their son or daughter in finding information about new apprenticeship places or when colleagues assist in filling in application forms; or indirectly, for example, because emotionally supported persons might feel more confident to keep on trying to find a new education.

Until know, studies on educational dropout have focused on dropout reasons and more immediate effects. Research about long term effects of educational dropout and specifically on factors hindering or promoting re-entry into education is rare. This paper aims to contribute to the discussion.

Research Questions: The main question discussed at the conference is about re-entry after drop-out from apprenticeships: Which factors promote, which ones hinder re-entry into upper secondary education after drop-out? How great is the chance to re-enter upper secondary education?

Data and Measures: The survey is based on a three wave longitudinal study with 1300 young persons, which were followed up three years after dropping-out from apprenticeship training (Stalder & Schmid, 2008; Schmid & Stalder, 2008). The first wave was carried out in 2004, shortly after the termination of the apprenticeship contract, the last one in spring 2007. Data collected comprised characteristics of the apprenticeship contract termination (wave 1), received social support in finding a new education place (wave 1 and 2), and detailed monthly information about educational and occupational activities and programs the young persons were enrolled in since dropping-out, such as re-entry into a full-time upper secondary programme, employment, unemployment, courses to bridge gaps in training ("Brückenangebot").

In a discrete time hazard model (Survival Analysis), determinants of re-entry into an upper secondary education are investigated.

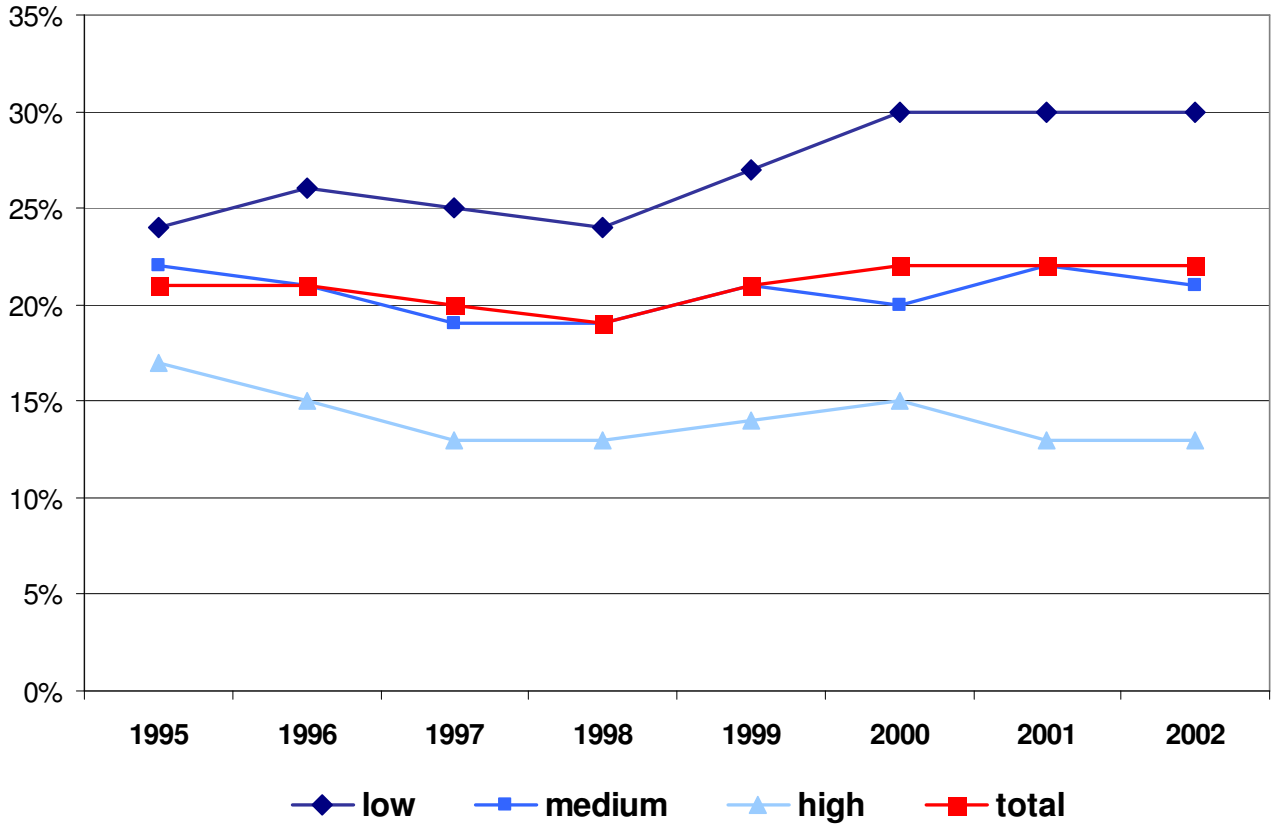
Results and Discussion: In my presentation I will first show, how re-entry rates develop over time and how many young persons manage to re-enter upper secondary education. Second, I give an overview over the main factors, which affect re-entry after dropout from apprenticeship training. I will show how socioeconomic factors, former educational experiences of the young persons, the reasons for apprenticeship contract termination, the received social support, as well as the activities of the young people and the programs they have been enrolled in after the dropout influence the process of educational reintegration. Based on the results we will discuss the possibility of educational policy to support those young people at risk.

Re-entry after drop-out from apprenticeship training

Evi Schmid

International Conference on Youth Transitions
TREE, 11. und 12. September 2009

Early apprenticeship contract terminations in Switzerland



from: Stalder & Schmid (2006)

Specially at risk are:

- foreign young people
- apprentices in the lower vocational tracks

Apprenticeship contract termination as stressful life event

Young people with apprenticeship contract termination are at risk of:

- becoming “dropouts” or “early school leavers”,
- not reaching a degree on the upper secondary level and
- thus: living under poor economic and social conditions and
- experiencing lower well-being

Coping with a stressful life event

The coping process and its effectiveness are determined by a lot of factors. According to theory they can be found in these domains:

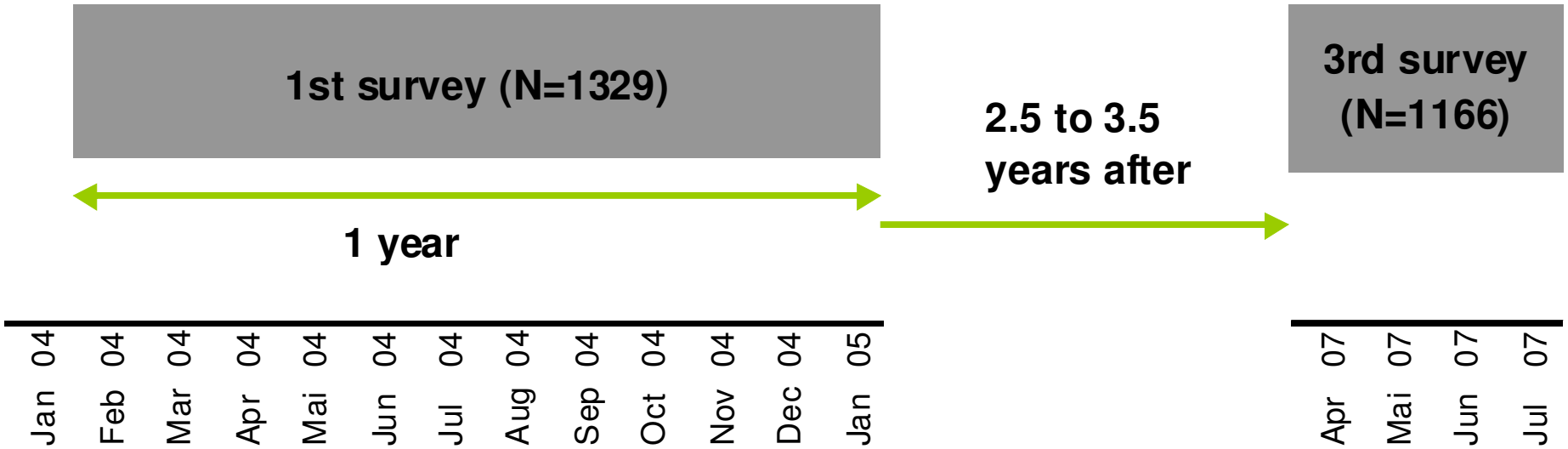
- **antecedents: events or memories in the past**
  (e.g. Silver & Wortman, 1980; Montada, 1995)
- **personal factors**
  (overview see Filipp, 1995)
- **contextual factors**
  e.g. social support (e.g. Sarason & Sarason, 1990)
- **criteria of the life event**
  (e.g. Filipp, 1995)
- **criteria of dealing and coping**
  (e.g. Lazarus & Folkman, 1984; 1987; Lazarus, 1985)
- **concomitant stressors**
  (e.g. Simmons, Carlton-Ford & Blyth, 1987)

Research Questions

How do young people deal and cope with the stressful life event „early apprenticeship contract termination”?

Which factors determine (which ones promote, which ones hinder) re-entry into upper secondary education after apprenticeship contract termination?

Design


1st survey (N=1329)
1 year
2.5 to 3.5 years after
3rd survey (N=1166)
Jan 04
Feb 04
Mar 04
Apr 04
Mai 04
Jun 04
Jul 04
Aug 04
Sep 04
Oct 04
Nov 04
Dec 04
Jan 05
Apr 07
Mai 07
Jun 07
Jul 07

Coping with the stressful life event „early apprenticeship contract termination“

The following criteria (and their effect on the coping process and thus the re-entry) were investigated:

- **antecedents**
  former experiences with contract terminations/drop-outs
- **personal factors**
  gender, nationality, age, educational situation prior to apprenticeship
- **contextual factors**
  SES, social support
- **criteria of the life event**
  time of contract termination, requirement of education, reasons for contract termination
- **criteria of dealing and coping**
  activities and programs attended after contract termination
- **concomitant stressors**
  number of other stressful life events

Determinants of re-entry: 2 models

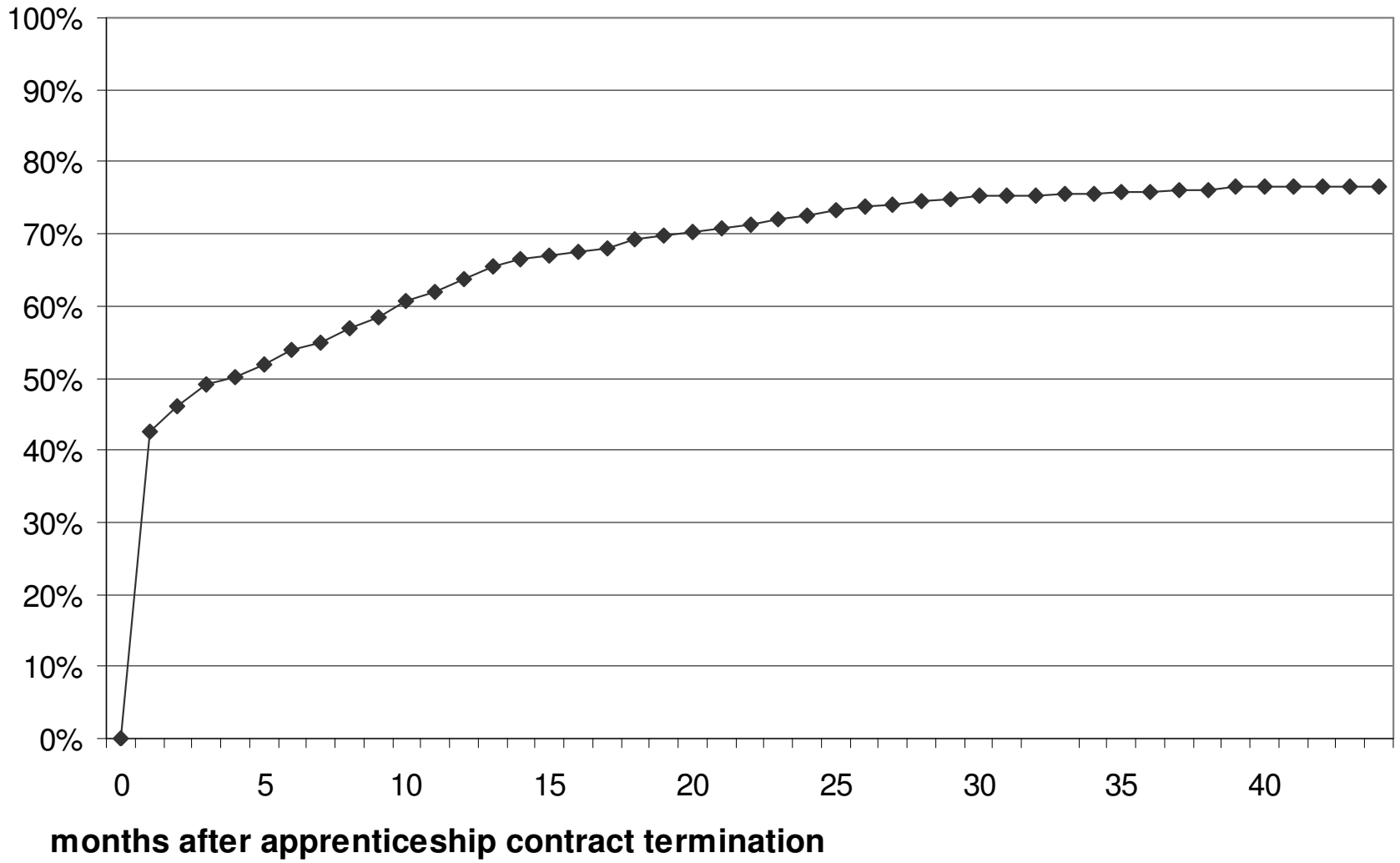
1. Determinants of direct re-entry

   logistic regression:
   re-entry direct after apprenticeship contract termination vs. later (after a break) or no re-entry (within investigation period of 3 years)

2. Determinants of delayed re-entry

   Survival Analysis:
   re-entry after a break vs. no re-entry (within investigation period of 3 years) dependent on time of re-entry

Descriptive results: re-entry after apprenticeship contract termination



N=1321, Kaplan-Meier-Estimation

Determinants of direct re-entry: logistic regression

	Exp(B)
antecedents	
former experiences with contract terminations: yes (vs. no)	0.424**
personal factors	
gender: male (vs. female)	0.824
nationality: foreign (vs. Swiss)	0.613
age at contract termination	0.951
educational situation prior to apprenticeship: extended requirements (vs. other)	1.155
contextual factors	
social support from… (vs. no support)	
…parents	0.639
…friends	0.373***
…apprenticeship trainer	2.185***
…vocational teacher	1.945***
…vocational supervisory	1.765*
…vocational adviser	0.299***
SES: parents upper sec. education (vs. no upper sec. education)	1.108
criteria of the life event	
Time of contract termination: probation time (vs. later)	0.311***
requirements: VET with federal certificate (vs. elementary training)	3.126
reasons for the contract termination … (vs. no reason)	
…bad performances in vocational college	0.761
…bad performances in training company	0.835
…choice of occupation and training firm	0.540
…personal reasons	0.342***
…bankruptcy/reorganisation training company	5.482***
…not challenged enough in vocational school or training company	8.492
Nagelkerke Pseudo-R^2	.441

N=858

*** p<.001, ** p<.01, * p<.05.

reference group: delayed or no re-entry (within 3 years)

Determinants of delayed re-entry: Survival Analysis (part I)

	Exp(B)
effect of time	
re-entry between 14th and 44th month (vs. between 2nd and 13th month)	0.560 *
antecedents	
former experiences with contract terminations: yes (vs. no)	0.924
personal factors	
gender: male (vs. female)	0.952
nationality: foreign (vs. Swiss)	0.842
age at contract termination	0.905 *
educational situation prior to apprenticeship: extended requirements (vs. other)	0.804
contextual factors	
social support from… (vs. no support)	
…parents	1.045
…friends	0.583 ***
…apprenticeship trainer	0.919
…vocational teacher	1.350
… vocational supervisory	1.745 *
…vocational adviser	0.648 *
SES: parents upper sec. education (vs. no upper sec. education)	1.365

N=313

*** p<.001, ** p<.01, * p<.05.

reference group: no re-entry (within 3 years)

Determinants of delayed re-entry: Survival Analysis (part II)

	Exp(B)
criteria of the life event	
Time of contract termination: probation time (vs. later)	0.776
requirements: VET with federal certificate (vs. elementary training)	5.210*
reasons for the contract termination … (vs. no reason)	
…bad performances in vocational college	0.724*
…bad performances in training company	0.966
…choice of occupation and training firm	0.814
…work and education in training company	1.331
…personal reasons	0.830
…bankruptcy/reorganisation training company	2.827
…not challenged enough in vocational school or training company	1.219
criteria of dealing and coping	
Activities after contract termination (duration in month)	
…gap year (transitional solution)	1.062**
…other short education	1.035
…transitional solution organized from unemployment benefit	1.081*
…work	1.014
…unemployment	1.038
…neet	1.056*
concomitant stressors	
number of stressful life events after contract terminations	0.462***

N=313

*** p<.001, ** p<.01, * p<.05.

reference group: no re-entry (within 3 years)

Summary

poorer chances of re-entering:

- young people without any new plans shortly after the contract termination
- young people having experienced more than one contract termination
- young people who started an education with low requirements
- young people whose apprenticeship contract was broken due to bad performances in vocational college
- young people who are confronted with a multitude of other stressful life events at the same time

better chances of re-entering:

- young people who have been supported in finding a new education by their apprenticeship trainer, their vocational teacher, or the official vocational supervisory
- young people who attended a “bridge course” after contract termination

References

Filipp, S.-H. (1995a). Ein allgemeines Modell für die Analyse kritischer Lebensereignisse. In S.-H. Filipp (Hrsg.), *Kritische Lebensereignisse* (3. Auflage, S. 3-52). Weinheim: Beltz.

Lazarus, R. S. (1995). Stress und Stressbewältigung – ein Paradigma. In S.-H. Filipp (Hrsg.), *Kritische Lebensereignisse* (3. Auflage, S. 198-232). Weinheim: Beltz.

Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Lazarus, R. S. & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality, 1*(3), 141-169.

Montada, L. (1995). Kritische Lebensereignisse im Brennpunkt: eine Entwicklungsaufgabe für die Entwicklungspsychologie? In S.-H. Filipp (Hrsg.), *Kritische Lebensereignisse* (3. Auflage, S. 272-292). Weinheim: Beltz.

Silver, R. L. & Wortman, C. B. (1980). Coping with undesirable life events. In J. Garber & M.E. P. Seligman (Hrsg.), *Human helplessness. Theory and Applications* (S. 279-375).New York: Academic Press.

Simmons, R. G., Carlton-Ford, S. & Blyth, D. A. (1987). The impact of cumulative change in early adolescence. *Child Development, 58*(5), 1220-1234.

Sarason, B. R., Sarason, I. G. & Pierce, G. R. (1990). Traditional views of social support and their impact on assessment. In B. R. Sarason, I. G. Sarason & G. R. Pierce (Hrsg.), *Social support: an interactional view* (S. 9-25). New York: John Wiley & Sons.

Stalder, B. E. & Schmid, E. (2006). *Lehrvertragsauflösungen, ihre Ursachen und Konsequenzen. Ergebnisse aus dem Projekt LEVA*. Bern: Bildungsplanung und Evaluation der Erziehungsdirektion.

Publication

Schmid, E. (2009). *Kritisches Lebensereignis „Lehrvertragsauflösung“. Eine Längsschnittuntersuchung zum Wiedereinstieg und zum subjektiven Wohlbefinden betroffener Jugendlicher.* Unpublished PhD Thesis. Fribourg: Philosophische Fakultät der Universität.

Methodical accesses to (educational) disadvantaged youth in the field of applied social science

Martina Stadlmayr, Karl Niederberger, Marlene Lentner

Research Institute for Vocational Training and Adult Education (IBE) at the Johannes Kepler University Linz, Austria

The Research Institute for Vocational Training and Adult Education at the Johannes Kepler University Linz (IBE), puts one of its special emphases (as an applied research institute) on the topic "Integration on the labour market of disadvantaged youth". Concerning the methodology, the IBE pursues an interdisciplinary approach, especially regarding the used methodological sets.

Against the background of insufficient integration of youth in the systems of education and initial trainings, as well as the difficulties of educational disadvantaged youth to gain ground on the labour market, the IBE realized in the years 2008/ 2009 two essential studies. The reachability of this special target group depicts the major challenge. This difficulty is faced by the IBE through a methodical mix and triangulation of qualitative and quantitative research.

The Upper Austrian Chamber of Labour ("Arbeiterkammer Oberösterreich") commissioned a large-scaled postal survey. In total, a response of 1.343 questionnaires could be achieved, including 384 questionnaires of young people, who can be classified as educational disadvantaged– this is a unique number of cases throughout Austria. Reachability was achieved through a complex layered sample. In a second research unit in cooperation with the Institute of Sociology at the Johannes Kepler University Linz 34 guideline interviews with the target group were carried out in two data collection waves. The study offers clues concerning the general framework in which youth is operating. It identifies possibilities to influence the risk of becoming educational disadvantaged.

A relatively young measure for integration of disadvantaged youth (youth with special educational needs, with negative or without compulsory school degrees, with disabilities, with special job-placement constrains) is the integrative vocational training ("Integrative Berufsausbildung (IBA)"). This active labour-market policy project is running since 2003 and financed through the Employment Office, the Federal Social Assistance Office or rather the provinces. The integrative vocational training combines the possibility of an extended vocational training period or a part-qualification in a certain occupation. The key of the concept is the support and guidance through a (personal) vocational training assistant ("BerufsausbildungsassistentIn (BAS)"), who accompanies the client for the whole period of vocational training. In course of a tender of the Employment Office Upper Austria, the IBE was commissioned with the evaluation of the BAS in Upper Austria. In terms of quantitative approaches, a data-bounding of the responsible organisations and a time course analyse of the employment data of the Austrian Social Insurance Institution were accomplished. A part-standardized questionnaire with the vocational training assistants shows differences in working approaches and execution of legal concepts. Concerning qualitative methods several guideline-supported interviews with explorativ character with the team leaders of the BAS, problem-centred case studies with young clients from the measure and a moderated reflection-workshop with all relevant actors of the integrative vocational training were applied. The analyse shows besides a broad evaluation of the general framework and the achievements of the measure, also limits and difficulties concerning the integration of youth on the labour market vividly and delivers results if sustain employment effects could be achieved.

Goal of the IBE-contribution for this conference is to present the chosen strategies concerning the exploration of the special target group (educational-) disadvantaged youth and to reveal advantages, as well as limits of such research designs for applied research.

The relationship between cannabis and tobacco from adolescence to young adulthood

Joan-Carles Suris, Christina Akré, Richard Bélanger, Pierre-André Michaud, André Berchtold

Research Group on Adolescent Health, Institute of Social and Preventive Medicine, University of Lausanne, Switzerland

Background

Cannabis is the most used illegal substance and prevalence rates among Swiss adolescents are among the highest in Europe.

There is an important relationship between tobacco and cannabis use. As the age of initiation of tobacco smoking usually precedes the onset of cannabis use, research has mainly looked at tobacco as a risk factor for cannabis use. Indeed, Kandel's *gateway theory* postulates that both tobacco and alcohol use are the previous necessary steps to illegal drugs, especially cannabis. However, recent research also indicates that cannabis use may precede or be simultaneous to tobacco use and that, in fact, its use may reinforce cigarette smoking or lead to nicotine addiction independently of smoking status. This is defined as the *reverse gateway theory*.

In fact, a Swiss study using cross-sectional data (SMASH survey 2002) found that 21% of current cannabis users reported never having smoked cigarettes. Moreover, this group of adolescents seemed to be more socially-driven than abstainers. This was explained, at least in part, because they were mainly occasional cannabis users.

A qualitative study among young Swiss cannabis users also indicated that even if they do not smoke cigarettes, they mix cannabis with tobacco in their joints for several reasons: it is easier to smoke (burns better), it requires less cannabis (and is less expensive than cannabis alone), and the effect is less strong than using cannabis alone. This mixture with tobacco is the main reason why cannabis users can become nicotine addicts afterwards. Actually, evidence indicates that nicotine dependence and persistent cigarette smoking may be the main public health consequences of cannabis use.

Nevertheless, there is a need for longitudinal data to confirm this theory. In order to fill this gap, the objective of our research is to determine the relationship between tobacco and cannabis use trajectories from adolescence to young adulthood, and, more specifically:

- If the use of one of the substances (tobacco or cannabis) decreases overtime, does the use of the other one increase to compensate?
- Are other substances (such as alcohol, for example) also used to compensate in these cases?

Methods

Using the TREE database, we will divide the sample at T1 (2001) in four groups:
G1: non users of tobacco and cannabis
G2: cannabis but not cigarettes users
G3: cannabis and cigarettes users
G4: cigarettes but not cannabis users.
And we will follow their evolution overtime until T7 (2007).

We hypothesize that:

1. Youths remaining in G1 at age 19/20 years are very unlikely to start using any of the substances afterwards.
2. Youths in G2 are more likely to be in G1 overtime than youths in either G3 or G4.
3. Youths in G3 are the most likely to remain in this group or to become heavy tobacco smokers in G4.
4. The majority of youths in G4 are likely to remain in this group overtime.

The results will be presented at the meeting.

Educational track position, membership in a sport club and sport practice among adolescents and young adults: a longitudinal approach. The Swiss Household Panel (SHP) 1999-2007.

Dorith Zimmermann-Sloutskis (1), Erwin Zimmermann (2), Miriam Wanner (1), Brian W. Martin (1,3)

(1) Swiss Federal Institute of Sport, Magglingen, (2) formerly University of Neuchâtel and Swiss Household Panel, (3) Institute of Social and Preventive Medicine, University of Zurich, Switzerland

Introduction:

Regular physical activity (PA) is enhancing health and prevents a wide range of chronic diseases. PA behaviour adopted during childhood and adolescence is usually maintained later in life. Though higher education has been consistently found to be positively associated to PA behavior, little is known if the decline in PA during adolescence is related to educational level and orientation. The present study addresses a) the impact of educational track position on physical activity behaviors and, b) the causal relationship between membership and sports practice for specific educational tracks.

Sample and Methods:

The Swiss Household Panel (SHP) is a longitudinal survey conducted yearly since 1999, offering a unique opportunity to assess longitudinal changes in PA behaviors over time (pure ageing effect) above the cross-sectional decline with age. The selected sub-sample includes subjects aged 14 to 24 years at baseline (age 14-32 years) (N_{ind}=3358, N_{obs}=10'963, 49.8% males) and to the common follow-up period T_0 to T_3 since entry (76.8% of total observations). - *Practicing sports* at least once a week and being a *member in a sports club* are both considered as positive PA behaviors and analysed as dichotomous outcomes. *Initial age* is a fixed covariate and *current age* a non-stochastic time-variant covariate measuring time (ageing). Three fixed *educational track orientations* are defined on the basis of the highest current (if still studying) or the highest achieved educational level (if not studying) at the end of the follow-up period: 1) High (25.1%): current high school or academic; 2) Middle (16.8%): high school highest or professional high; 3) Low (53.5%): compulsory highest or professional low. Participants aged 14-16 years who had not yet left compulsory school at the end of the follow-up period are considered separately (4.6%).

Statistical analyses are carried out using SAS (Statistical Analysis Software, 9.1). The generalized estimation equation (GEE) is applied for the pooled prevalence patterns of PA behavior using unstructured pairwise log odds ratios. For changes over four years (T_0 to T_3), an independent correlation structure is used. The causal effect of changes in membership status on subsequent changes in sport practice is assessed using a conditional GEE model, conditioning on previous sport level.

Results:

The prevalence of sportive young males and females is respectively 76.5% and 68.3% and of membership in a sports club 52.7% and 37.9%. The risk of low sports practice (sport-) is almost seven times higher for non-members in both genders. The prevalence of sports practice and of membership in a sports club decline by about 7% for any linear year of age and the decline is much stronger in non-members (23.2%) than in members (2.4%). Most of changes towards decline in sport are found in the lowest educational track (14.6%) and the smallest decline in the highest (10.4%).

Between ages 14-16 years, when all participants are in compulsory school, there aren't significant differences neither in sport practice nor in membership participation between later educational tracks. However after age 17 years, the adjusted risk odds ratios (ROR) of "sport-" and "mb-" are significantly higher in the lowest compared to the highest educational track only (OR_{sport-}=1.9, 95%CI=1.5-2.3 and OR_{mb-}=1.4, 95%CI=1.2-1.7). The significant RORs of "sport-" in lowest educational track are similar for members (OR=1.6, 95%CI=1.1-2.2) and non-members (OR=1.6, 95%CI=1.3-2.2) (p for interaction=0.9), though most of changes towards quitting a sports club are among the youngest subjects still in compulsory school (14.9%) despite their higher membership rate in a sports club.

Conclusions: The results suggest that the discrepancies between educational levels are not imputable to socio-cultural differences during childhood and early adolescents, but more likely to living arrangements and conditions associated with the educational track position after age 17 years. Encouraging the maintenance of membership in a sports club among adolescents engaging in a lower educational track after compulsory school is important in preventing physical activity decline.