
Eric Crettaz

Precarious Employment and Working Poverty among Youth: Conceptual Reflections and Empirical Evidence from Switzerland in the late 2000s

Most of the recent specialist literature underlines the development of precarious employment in OECD countries since the 1980s and the fact that labour market entrants have been disproportionately affected (Esping-Andersen, 1999, Vives et al., 2010, Porthé et al., 2010, Frade/Darmon, 2005). A vast body of literature on the school-to-work transition already exists. Most studies have focused on the difference between systems that promote vocational training, especially the dual system of apprenticeship, and those that promote general skills (Dieckhoff, 2008, Allmendinger, 1989, Buchmann, 2002). The school-to-work transition is smoother in countries with occupation-specific credentialing systems, such as Germany, Austria, Denmark and Switzerland, than in countries that promote general skills (Wolbers, 2007, Bertschy et al., 2008, Breen, 2005, Korpi et al., 2003, Scherer, 2005). In the latter, the number of job changes is higher at the beginning of the work career (Quintini/Manfredi, 2009).

Other factors also play an important role, such as the employment protection legislation (Bertschy et al., 2008, Bernardi et al., 2004) and the tax wedge (Quintini/Manfredi, 2009). Some European Union member states, characterised by the absence of the dual system of vocational training, high levels of employment protection and high labour costs, can be depicted as 'temporary work countries', e. g. France, Belgium, Greece, Italy, Portugal, and Spain, because fixed-term employment or temp agency work is almost unavoidable for labour market entrants (Palier/Thelen, 2010, Crettaz, 2011). Moreover, aggregate macroeconomic conditions and cohort sizes are also decisive factors (Wolbers, 2007, Gangl, 2002, Bernardi et al., 2004).

The aim of this article is not to analyse all possible transitions between education, unemployment, precarious employment and stable employment, but to focus on one specific situation that young workers (20 to 34 years old) may be more likely to face than more experienced work-

ers, namely precarious employment, and on some of its causes and consequences, in particular unemployment and working poverty. Youths may not be all too affected, however, in a country like Switzerland, characterised by a unique combination of features, namely an educational system in which the dual apprenticeship system plays a very prominent role, a lightly regulated labour market, very low unemployment levels and low taxes. The topic of precarious employment leads me to also tackle the issue of working poverty. Indeed, there are theoretical reasons to consider precarious employment as a potential working poverty factor. Moreover, the negative impact of 'atypical' employment on working poverty has been assessed empirically (Goerne, 2011).

More precisely, the questions I want to answer are the following: Are Swiss youths more exposed to precarious employment than the rest of the workforce? Do previous unemployment spells increase the odds of holding a precarious job, and does the causality also go the other way around? Is working poverty more widespread among workers who hold precarious jobs, and is it more frequent among young workers?

This article is structured as follows: After necessary conceptual clarifications, the incidence of various types of precarious employment among young workers in Switzerland is measured, as well as their relationship with unemployment, based on Swiss Household Panel (SHP) data. The situation of young workers in terms of poverty is assessed with both SHP and Luxembourg Income Study data. While the article is mainly based on transversal data on precarious employment and working poverty, dynamic analyses pertaining to the interplay of unemployment and precarious employment forms are provided.

The importance of going beyond the precarious/not precarious dichotomy

In order to be able to answer the questions asked above, it is fundamental to have an operational definition of 'precarious employment'. A review of the recent literature shows that two main groups of researchers can be identified. The first one focuses on the situation in Canada and the Antipodes. In the Canadian context, the notion of precarious employment is defined in relation to 'standard employment', i. e. full-time permanent employment with one employer (Cranford et al., 2003, Evans, 2007, Young, 2010), and the following dimensions are highlighted:

- › Low earnings,
- › Work intensity, especially the difference between full-time and part-time work,

- › Job insecurity and instability, low job tenure, temporary employment,
- › Access to benefits and statutory entitlements, including health and pension-related benefits provided by the employer,
- › Presence of a union, collective bargaining,
- › Irregular hours and shifts, poor working conditions.

In New Zealand, a “policy of neoliberal transformation” (Ryan and Herod, 2006) has led to the strong development of less secure employment conditions, as is also the case in Australia, a country in which the growth of temporary employment over the past two decades has been more marked than in the US and most EU countries (Louie et al., 2006). The dimensions retained are very similar to those brought to the forefront by Canadian researchers.

A second group of mainly Spanish researchers has also developed a conceptual framework (Vives et al., 2010, Porthé et al., 2010, Benach et al., 2010, Muntaner et al., 2010), and identified six dimensions:

- › Job instability (fixed-term contracts, temp agency work, etc.),
- › Empowerment (e.g. union presence, collective bargaining and agreements, etc.),
- › Vulnerability to management discipline (similar to empowerment, but with a focus on social relations in the workplace),
- › Wage levels and unsustainability,
- › Entitlement to workers’ rights and access to social benefits,
- › Capacity to exercise these rights, linked to the fact that workers may be unable to enjoy certain social benefits because of fears over losing their job.

In summary, today’s conceptualisations combine the cause – an ‘atypical’ work contract or some forms of self-employment – and the consequences in terms of protection, rights, earnings, and stability; this leads to the inclusion of various *forms of employment*. Some are unanimously accepted as belonging to the category of ‘precarious employment’, such as fixed-term employment and on-call work. Jobs characterised by low or volatile earnings are usually included in this category, as well as jobs that are less secure and/or that do not provide the same access to social protection and benefits, home-based work, own-account and bogus self-employment. Part-time employment is also usually included. This can be criticised as gender-biased, because in most countries full-time employment has never been the standard form of employment among women. Other employment forms are sometimes mentioned as precarious, notably undeclared work.

In addition, and this is of paramount importance here, most contributions mention that precarious employment is distributed to the disadvantage of youth, women and minorities.

These researchers unanimously *reject the use of dichotomies*; as Louie et al. put it (2006: 467), there is a 'growing recognition of the need to move beyond simple dichotomies to more refined classifications'. Moreover, it should be noted that 'unemployment can be considered as the most extreme stage of job instability, which is one of the important dimensions underlying employment precariousness' (Muntaner et al., 2010: 286).

Precarious employment in the Swiss institutional context

Some of the dimensions mentioned above must be understood in the light of the Swiss institutional context. Most of the countries that have a dual system of vocational training (apprenticeship system) are found in the Conservative Corporatist welfare regime, such as Germany and Austria, or in the Social-Democratic welfare regime (Denmark), while general skills are promoted in the 'liberal' cluster (Anglo-Saxon countries) (Esping-Andersen, 1990). The Swiss case is interesting in this regard, because it represents a hybrid, liberal-conservative regime (Bonoli, 2003). Indeed it shares many features with its German-speaking neighbours, namely the apprenticeship system as well as many aspects of the welfare state (the emphasis on social insurance financed through payroll taxes in particular), but also with Anglo-Saxon countries, especially a lightly regulated labour market and a heavy reliance on markets and private companies, especially in the fields of healthcare and pensions. This leads to a unique institutional constellation.

More specifically, not being protected by a collective agreement that contains a minimum wage is the norm rather than the exception, as only around 35 per cent of workers are covered by such an agreement (Swiss Federal Statistical Office, *hereafter* BFS, 2010). Moreover, the fact of not being a member of a union is not a very relevant dimension in Switzerland, as the unionisation rate is low (Flückiger, 1998). One of the main aspects of the access to social benefits is that self-employed workers are not compelled to pay social security contributions for the 'second pillar' of the pension system – i. e. the occupational benefit plan based on capitalisation. Nor are they compelled to pay contributions to the work injury insurance. Regarding employees, workers earnings less than 23 940 Swiss Francs a year are excluded from the 'second pillar' of the pension system.

As far as official reports are concerned, the State Secretariat for Economic Affairs (*hereafter SECO*) published a first study in the early 2000s (2003) and a follow-up study at the end of the decade (2010). These reports highlight three types of insecurity:

- › A temporal insecurity, a typical feature of temporary and fixed-term contracts,
- › An economic insecurity associated with the volatility of earnings, as is the case with on-call work, turnover-dependent wages and involuntary part-time work,
- › Insecurity in terms of protection, when job security or the security or working conditions are not guaranteed due to the type of contract held.

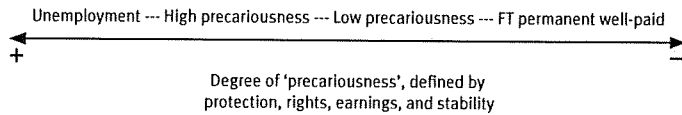
Moreover, these reports include low earnings thresholds. If a worker earns less than the low-wage threshold *and* experiences one or more of the three above mentioned insecurities, or earns less than the median wage *and* experiences more than one type of insecurity, he or she is deemed to have a precarious job. Hence, a person who holds a temporary job but earns more than a low wage does not have a precarious job according to the SECO. This analysis focuses, hence, only on jobs with high levels of precariousness and is based on a simple dichotomy.

Precarious employment and working poverty: two distinct concepts

I define *precarious employment* as various forms of employment associated with insecurity. These forms include fixed-term contracts, temp agency employment, on-call work, involuntary part-time work (under-employment), low-wage jobs, and those associated with unstable earnings. This analytical category also contains self-employed workers without employees, as well as bogus self-employment. Moreover, I focus on declared work only, because tackling the issue of the underground economy requires another analytical framework and other methods than the ones presented here.

Finally, and this is the core of my conceptual framework, the situation in the labour market is conceptualised as a continuum that ranges from unemployment to permanent, full-time and decently paid employment, with a broad spectrum of in-between situations ranging from low precariousness to high precariousness. Along this continuum situations are defined by multiple dimensions (earnings, stability, security, rights and benefits). This conceptual framework is summarised in Figure 1.

Figure 1 From unemployment to full-time, permanent, "well-paid" employment



Source: own representation.

Where are the various forms of precarious employment situated on this continuum? Fixed-term contracts are associated with the highest level of precariousness, especially short-term contracts. Own-account workers who have experienced an unemployment spell before becoming their own boss can also experience high levels of precariousness. Underemployed workers (women in general) are not in such a precarious situation in terms of income volatility and temporal instability, but they are likely to have relatively low wage rates. Multiple job holders are less exposed to temporal instability and to the unemployment risk (they are quite unlikely to lose all of their jobs simultaneously), but may have many jobs due to low pay in the main activity; however, they can also have two part-time jobs. Finally, there are categories of workers who face a low degree of insecurity; this is the case of freelance workers who have skills that are in high demand in the market, as well as highly qualified workers who work at home. For all categories, being badly paid (low wage rate) shifts the position to the left on the continuum.

Working poverty is not included in the category of precarious employment, because the very notion of poverty is not an individual characteristic, contrary to job stability, security and quality. Indeed, a worker who holds a 'precarious' job, even if it is a low-wage job, might escape poverty thanks to the earnings of his or her partner, to social benefits, to capital income, or other income sources. Symmetrically, a worker may have an open-ended contract, work full-time, yet be a member of the working poor, due to the household context.

There is no such thing as a consensus about the definition of poverty. I do not wish to review the vast body of literature on this topic, as this has already been done many times (Atkinson, 1998, Strengmann-Kuhn, 2003, Leu et al. 1997). Usually, poverty is defined as having a low household income, despite the acknowledged shortcomings of this type of indicators (Crettaz, 2011, Halleröd 1995, 2006). There is one aspect poverty research-

ers agree upon, though, namely that *poverty must be measured at the household level*, contrary to low-wage employment, which is an individual characteristic (Strengmann-Kuhn, 2003, Nolan/Marx, 2000, Nolan, 1998).

More important in my view is the second dimension of working poverty, namely being in the workforce. Most of the literature uses an arbitrarily set minimum number of hours or months worked, ranging from one hour of work in a reference week to full-time year-round labour market participation (Crettaz, 2011). This means that many poor persons who hold a job are not considered to be 'working poor' according to these arbitrary definitions, which is not very satisfying. In my view, any person holding a job at the time of the interview should be included, which is the definition used in this article.

Are Swiss youths more exposed to precarious employment than older workers?

In what follows, I use Swiss Household Panel (SHP) data, because this survey contains reliable income and earnings data, as well as a large array of labour market related characteristics. It also allows for longitudinal analyses. As this article focuses on the situation of young workers, an empirical challenge is posed by the fact that the number of cases will necessarily be limited, because some forms of precarious employment are limited in number, and persons under 35 make up a minority of the population in ageing societies. In order to avoid working with too small a sample, I have decided to aggregate three waves of the SHP and to treat this sample as if it were a single cross-sectional sample. Obviously, this may be subject to criticism; however, a systematic approach has been used (see appendix for more details on the aggregation and weighting procedures). This approach has already been used with a larger number of waves and yielded plausible results (Crettaz/Forney, 2010). I have decided to merge the 2006, 2007 and 2008 waves of the SHP, because these years were similar in terms of unemployment (with a rate between 3.4 and 4.2, except in the first quarter of 2006) and real GDP growth (between +0.5 and +1.2 per cent). After this period, higher unemployment rates and negative real GDP growth rates were recorded in a few quarters. Sure enough, 2008 marked the beginning of the worldwide recession triggered by the subprime crisis in the US; however, its effects were not yet felt in Switzerland when SHP data were collected.

The various categories of precarious employment I can construct with SHP data are the following:

- › fixed-term employment – excluding apprenticeships, holiday jobs and trial periods - and the duration of the contract,
- › own-account self-employment,
- › underemployment, by comparing the number of weekly hours usually worked and the number of hours the respondent would like to work – excluding respondents who also study and those who have a disability or illness that prevents them from working more,
- › home-based work (respondents who say they always work at home),
- › multiple job holding, based on a question about the number of employers in the week prior to the interview.

Let us now have a closer look at the distribution of various types of precarious employment across age groups. Table 1 compares workers under 35 with older workers, while Table 2 is based on ten-year age brackets.

Table 1 Incidence of various types of 'precarious' employment among young workers and workers over 35 years of age (in per cent)

	20–34 years old	35 and over
Fixed-term contracts	10.6	3.9
Share of contracts of 12 months or less among fixed-term contracts	73.2	72.7
Home-based workers	4.4	7.4
Own-account self-employed	2.6	5.1
Multiple jobs	10.3	10.6
Underemployment	5.4	8.4

Source: Swiss Household Panel, 2006–2008, own calculations.

It is noteworthy that most studies reviewed above stress that young workers are more likely to hold precarious jobs; however, this judgement should be nuanced as it depends on the employment type considered. Table 1 shows that while workers under 35 are much more likely to have a fixed-term contract, the incidence of short-term contracts (a year or less) is similar across both age brackets. The difference between young and older workers is slight in terms of multiple jobs holding. Finally, young workers are less likely to be found among home-based, underemployed, and own-account workers.

From Table 2, it can be seen that it is mainly people under 30 who are strongly represented among workers who hold a fixed-term job. Inter-

Table 2 The distribution of age among various categories of precarious employment (column per cent – cells with at least 10 per cent of overrepresentation are shaded in grey)

	Fixed-term contracts	Home-based workers	Own-account self-employed	Multiple job holders	Under-employment	All workers over 20
20–29 years old	36.4	10.7	2.9	15.7	7.7	15.6
30–39	16.0	18.6	15.1	21.9	30.0	21.9
40–49	27.2	31.0	28.2	29.0	32.8	28.9
50–59	9.9	21.1	26.1	23.7	17.4	22.5
60+	10.5	18.6	27.8	9.8	12.1	11.0

Source: Swiss Household Panel, 2006–2008, own calculations.

estingly, then, even in a country with a lightly regulated labour market and a low level of youth unemployment, fixed-term employment is non-marginal among young workers. Underemployment is concentrated among working persons aged 30 to 49, and the concentration is highest among workers in their thirties, many of whom are included in the category of ‘young workers’ (20–34 years old). This type of precariousness mainly concerns women, and the reason mostly mentioned by these workers is the presence of children in the household (results not shown), which raises the question of whether women really ‘choose’ to work part-time after childbirth in a country in which family policy is very limited and childcare costs are very high in international comparison. Self-employed workers are older on average than wage earners, while multiple job holding is quite evenly distributed across all age groups.

Having a low wage is usually also included in the list of dimensions that characterise precarious employment. I have calculated hypothetical

Table 3 Distribution of age categories across the quintiles of the earnings distribution (column per cent – cells with at least 10 per cent of overrepresentation are shaded in grey)

	20–29 years	30–39	40–49	50–59	60 plus	All workers over 20
Q1	43.6	17.4	16.1	14.6	20.2	20.0
Q2	35.3	18.2	19.7	14.1	16.5	20.0
Q3	12.3	26.3	19.4	19.7	15.8	20.0
Q4	7.4	24.1	20.8	22.3	18.0	20.0
Q5	1.4	14.0	24.0	29.4	29.5	20.0

Source: Swiss Household Panel, 2006–2008, own calculations.

'full-time year round earnings', by taking account of the number of hours a week usually worked and by postulating that the person would have the same remuneration rate regardless of the number of weeks worked during the income reference period. In line with the human capital theory, Table 3 clearly shows that young workers in Switzerland are over-represented in the bottom quintile of the earnings distribution; however, this conclusion only applies to workers under 30.

Does unemployment lead to precarious employment, and vice versa?

Having now described the situation of young workers in terms of precarious employment, the relative weight of the age factor compared to other important risk factors needs to be assessed. In what follows, the main socio-economic factors highlighted in the literature on precarious employment are included in the analysis, mainly the age, the fact of having experienced unemployment in the recent past (3 years), the educational level, the gender, the nationality, and the country of birth. A logistic regression model is calculated for each type of precarious employment analysed in this article. The age variable is divided into ten-year age groups in order to account for the non-linearity described above. Dummy variables for the gender, the nationality (Swiss/non national), and the country of birth (Switzerland/other country) are also included in the model. The number of times a respondent said that he or she was unemployed in the three years preceding the latest interview is also included, in order to have a closer look at dynamic aspects. The regression models presented below include all workers regardless of their age, so that the sample is large enough to obtain reliable findings. However, as youths are over-represented in fixed-term employment and among the underemployed and not in the other categories, it is quite easy to draw conclusions regarding the situation of young workers. Models pertaining to the determinants of various forms of precarious employment are displayed in Table 4.

All other things being equal, being a worker under 30 (rather than being a worker in his or her fifties) significantly and strongly increases the odds of holding a fixed-term job – the odds are multiplied by 6. The model shows that workers under 30 are more exposed to temporary employment not only because they are more at risk of unemployment, and that the phenomenon does not only affect young workers with a low educational level (as the impact of unemployment and education is controlled for in the model). This age category is less likely to be found in own-account self-employment, to be underemployed or to work at home. Workers in their thirties are

Table 4 Logistic odds ratios for each type of precarious employment

	Fixed-term contracts	Own-account self-employed	Multiple job holders	Under-employment	Home-based workers
AGE (Réf: 50–59)					
20–29 years	5.930**	0.144**	0.777	0.430**	0.525**
30–39	1.244	0.436**	0.798	1.248	0.748
40–49	1.563	0.914	1.028	1.398*	1.048
60+	0.73	0.751	0.324**	0.333**	0.589**
Number of times in unemployment (3 years prior to interview)	1.947**	1.446**	1.091	1.544**	0.843
Women	1.162	0.836	1.535**	4.027**	1.303**
Born in Switzerland	1.817*	0.802	1.224	0.979	1.457*
Swiss citizen	1.017	1.923*	1.370	0.817	1.248
EDUCATION (Réf: secondary)					
Primary educational level	1.168	0.634*	0.928	1.014	1.042
Tertiary educational level	2.728**	1.183	1.678**	1.098	2.111**

Source: Swiss Household Panel, 2006–2008, own calculations.

** significant at the 5% level, * significant at the 10% level

more likely to be affected by underemployment (the odds increase by 24.8 per cent), but the impact is not statistically significant. Moreover, they are less likely to be own-account workers. These results confirm the descriptive evidence presented above to a large extent.

Each additional year during which the respondent experienced an unemployment spell significantly increases the odds of holding a fixed-term contract (+94.7 per cent), of being an own-account worker (+44.6 per cent) and of being underemployed (+54.4 per cent). Hence, it can be said that each unemployment spell has a non-negligible impact on the likelihood to hold a precarious job in the near future. Multiple job holding and home-based work are not influenced by previous unemployment spells.

Though it is not the core of this article, an interesting and counter-intuitive finding must be brought to the forefront. Having a tertiary-level degree increases the odds of holding a fixed-term job, while no post-compulsory education does not significantly increase them (compared to the situation of workers who have completed an apprenticeship). This puzzle is explained by the fact that highly qualified workers are mostly found among those who hold a job that is renewed on a regular basis (especially in teaching and the academic world, results not shown here) and those who work on

a project of limited duration. Unskilled workers are typically found in the categories of internships and temporary/interim jobs.

Another striking result should be noted. Being a woman quadruples the odds of being underemployed, *ceteris paribus*. As indicated above, the fact that so many mothers wish they could work more raises the question of whether women really 'choose' to reduce their labour force participation once they have children.

The main finding of this section is that unemployment spells increase the odds of subsequent precarious employment, especially fixed-term employment, which disproportionately affects young workers. But does the causality also go the other way around? As the focus of this article is on the situation of youths, the reverse model has been calculated for fixed-term employment only, that is, the only type of precarious employment clearly associated with young adults in Table 4. In the model presented in Table 5, the number of times a respondent reported that s/he held a fixed-term job during the three years preceding the latest interview is included as an explanatory variable. The other independent variables are the same as in Table 4. The dependent variable is the fact of having experienced unemployment in the reference year.

Each additional year in which a worker has held a fixed-term contract (even if it was not over the entire year) significantly increases the odds

Table 5 Odds of being unemployed (logistic odds ratios)

	Unemployed in reference year
AGE (Réf: 50–59)	
20–29 years	2.285*
30–39	1.823
40–49	1.088
60+	0.391*
Fixed-term job in recent past (3 years)	2.181**
Woman	1.693*
Born in Switzerland	0.273**
Swiss citizen	0.870
EDUCATION (Réf: secondary)	
Primary educational level	0.623
Tertiary educational level	0.700

Source: Swiss Household Panel, 2006–2008, own calculations.

** significant at the 5% level, * significant at the 10% level

of experiencing unemployment later. Indeed, the odds more than double for each one-unit increase.

Are workers who have a precarious job more exposed to working poverty?

So far we have seen that Swiss young adults are more exposed to fixed-term employment, but not to other forms of 'precarious' employment, except for mothers in their early thirties who are more likely to be underemployed. Having experienced unemployment spells markedly increases the odds of holding a precarious job, while fixed-term contracts increase the risk of subsequent unemployment. This leads me to tackle the issue of working poverty, because precarious employment is associated with temporal and financial instability; it has been shown that the degree of labour force attachment and the wage rate are two mechanisms closely linked to working poverty, the third one being the number of children per working-age adult in the household (Crettaz, 2011, Crettaz/Bonoli, 2011).

The topic of working poverty still remains under-researched in Europe; however, some progress has been made in recent years (Fraser et al., 2011, Andress/Lohmann, 2008, Eurostat, 2005). It must be underlined that Switzerland was at the forefront of European working poverty research in the late 1990s and early 2000s (Streuli/Bauer, 2002, Caritas, 1998). The working poor are defined here as individuals who are employed at the time of the interview and live in a household whose income is below 60 per cent of median disposable income, the poverty line that is most widely used in European poverty research. The fact of combining the individual work status with household income is the approach overwhelmingly used in working poverty research in Europe and in the US (Crettaz, 2011, Fraser et al., 2011, Andress/Lohmann, 2008, Meyer/Holtz-Eakin, 2001) and in official statistics (Eurostat, 2005, Bureau of Labor Statistics, 2003).

Table 6 shows whether workers who hold precarious jobs are over-represented in the lower income brackets. The last row of Table 6 clearly indicates that each type of precarious employment analysed in this article is over-represented in the bottom 10 per cent of the income distribution, the segment of the income distribution in which the working poor are found, as the working poor rate in Switzerland is lower than 10 per cent (Crettaz, 2011). In particular, workers holding a fixed-term job are more exposed to working poverty, as 15 percent of them are found in the bottom decile of the income distribution. Interestingly, both home-based workers and own-account workers are very heterogeneous categories, as they are over-represented at both ends of the income distribution.

Table 6 The distribution of various forms of precarious employment across income quintiles and deciles (column per cent – cells with at least 10 per cent of overrepresentation are shaded in dark grey, and 5 per cent in light grey)

	Fixed-term contracts	Home-based workers	Own-account self-employed	Multiple job holders	Under-employment	All workers over 20
Bottom quintile (NET INCOME)	30.0	23.0	25.4	24.8	30.0	20
Q2	27.2	16.5	21.5	20.6	27.2	20
Q3	15.4	18.0	17.5	18.5	15.4	20
Q4	16.6	20.9	14.4	17.6	16.6	20
Q5	10.7	21.6	21.2	18.5	10.7	20
Bottom income decile	15.4	13.2	16.4	12.0	18.0	10

Source: Swiss Household Panel, 2006–2008, own calculations.

Do these results imply that young workers are necessarily more exposed to working poverty? Table 7 below contains figures derived from Luxembourg Income Study data for the year 2004 (the most recent wave), as this dataset contains more accurate variables for the determination of workers' poverty status. This is obviously not the same year as for the other analyses contained in this article. However, the sociodemographic composition of the working poor population is rather constant over a short period of time, as it is only affected by major demographic and labour market changes. This did not happen in Switzerland between 2004 and 2008.

Table 7 Working poor rate across age groups (row per cent)

	Non-poor workers	Working poor
20–29 years old	95.6	4.4
30–39	94.9	5.1
40–49	93.5	6.5
50–59	95.5	4.5
60+	89.4	10.6
All workers 20+	94.4	5.6

Source: Luxembourg Income Study 2004, own calculations.

The working poor rate in 2004 was lower among the 20 to 29 year olds than among middle-aged workers (30 to 49), and was similar to that of workers in their fifties, in line with official statistics, despite the fact that the

BFS focuses on households with a high degree of labour force participation (BFS, 2004).

One of the reasons explaining this maybe counterintuitive finding is that members of the youngest age group usually do not have children – the average age of the mother at the birth of her first child was 31.2 years in 2009 (BFS website, topic 01 – Population) – another one being that the labour force participation of women decreases markedly after childbirth. In 2009, 84.6 per cent of mothers of children under 14 living with a partner worked part-time, compared to 41.5 per cent among childless women (BFS website, 01 – Population). For the reasons indicated above, work and family life are difficult to reconcile in Switzerland; this explains why having children is associated with a notable increase in the poverty risk. In countries like Germany or Sweden, where family policy is comparatively much more generous, the working poor are younger than in Switzerland; for instance, the working poor rate drops after age 25 in Sweden (Crettaz, 2011).

A contrasted picture of precarious employment and poverty among young workers

Concerning young workers, a first notable finding is that in Switzerland, despite the fact that the labour market is lightly regulated and youth unemployment is low by international comparison, fixed-term employment is non-marginal among young workers, especially under 30 years of age, and this is not only attributable to the fact that they are more exposed to unemployment. Moreover, in line with the human capital theory, this age group is much more likely to have low earnings, due to their limited work experience. Another category of young workers is exposed to underemployment – they work part-time but wish they were able to increase their labour force participation – mostly mothers in their early thirties.

Second, unemployment and precarious employment are closely linked. Previous unemployment spells increase the odds of holding a precarious job, while fixed-term contracts greatly increase the risk to experience unemployment in subsequent periods, a mechanism that disproportionately affects young workers in Switzerland. These findings open up interesting avenues of research. In order to have a better understanding of these unemployment/fixed-term job transitions among young adults, another longitudinal database than the one used here offers a better potential for refined analyses. The TREE (Transition from Education to Employment) dataset, which is a PISA follow-up study carried out in Switzerland, would probably provide more detailed and more insightful results, as is the case in some existing publications (see e.g. Bertschy et al., 2008). It would

be particularly interesting to quantify the extent of other sequences: precarious employment preceding a return to the educational system, or precarious employment followed by stable and decently paid employment, or the existence of low-pay traps.

Third, workers under 30 are less exposed to poverty than middle-aged workers, despite the fact that they are more likely to experience unstable working conditions (fixed-term contracts and temp agency work in particular) and to get a low wage. This apparent paradox is largely attributable to their lower needs, as most of them do not have children, and to the higher labour force participation of women in this age group. This confirms the importance of distinguishing between individual level variables, such as working conditions, type of work contract and earnings, and household variables, such as income, living conditions and poverty. Unfortunately, longitudinal analyses of working poverty among young workers are confronted with a major difficulty: the sample size becomes very small after only a few years (Gutiérrez et al., 2011).

All in all, the problems young adults (20–34 years old) face in the Swiss labour market can be divided into two distinct phases. In their twenties, young workers are more exposed to unemployment and to temporary employment than the rest of the workforce, and more likely to get a low wage; however, they have a below-average risk of being working poor. Workers in their early thirties are less likely to experience fixed-term employment and unemployment spells, and they get better wages; however, they are more exposed to underemployment, especially female workers who have children. Moreover, 30 to 35 year old workers, both men and women, are more at risk of poverty, which is attributable in large part to a below-average labour market participation at the household level and to high household needs among families with children.

Finally, not only have the employment forms associated with a high degree of precariousness increased in Switzerland in recent years, even when the economy was still growing (SECO, 2010), but it also seems that instable work patterns are not only a characteristic of low-skilled employment. An important avenue of research would consist in tracking over time the incidence of fixed-term employment among workers who hold tertiary level diplomas; this may be particularly relevant for young graduates.

What are the social policy implications of these results? Switzerland is a liberal-conservative hybrid case; however, despite its lightly regulated labour market – according to the OECD's website, the employment protection legislation (EPL) index amounted to 1.77 in 2008, which is lower

than that of most European countries – Switzerland displays a high incidence of temporary employment (13.2 per cent in 2010 according to the OECD's website). This incidence is much higher than in Anglo-Saxon countries and very similar to that in Germany and France (14.7 and 15.1 per cent); however, employment protection is stronger in the latter countries (the EPL index amounts to 2.63 in Germany and 3.0 in France) and unemployment is much higher. Moreover, temporary employment increased from 11.5 to 13.2 per cent between 2000 and 2010 in Switzerland. It appears, hence, that Swiss authorities should tackle the issue of the high and growing incidence of temporary employment despite a healthy economy and very low unemployment levels, as temporary employment increases the risk of poverty. Another area of policy in which there is room for improvement is family policy. Expenditures in Switzerland amount to 1.4 per cent of GDP, according to the OECD's Social expenditure database, while most European countries invest much more on their families (UK 3.2 per cent, France 3.0, Austria 2.6 and Germany 1.9). In Switzerland, as families with two or more children are much more exposed to poverty (Crettaz, 2011) and underemployment is widespread among young mothers, it seems fair to say that family policy, and childcare policy in particular, should be redesigned and more generous.

Appendix: the aggregation of three waves of the SHP

From a statistical standpoint, it is not unproblematic to treat a sample that results from the aggregation of three waves as if it were a single cross-section sample. The inclusion probability of a given sociodemographic group may vary from one year to another, and the representation of specific population groups may be more affected by sample attrition. However, the composition of the population remains fairly constant over a three-year period and there is no reason to think that participation rates fluctuate widely over such a short time span. Moreover, the transversal weights of the reference year have been used, as it is preferable to use slightly distorted weights than no weight at all, given that some population groups are systematically under or over-represented in the sample.

The earnings and income variables have been deflated in order to make them comparable across the three waves, namely with the real wage index and the consumer price index of the BFS. The results presented in this article pertain, hence, to earnings and incomes kept constant in real value.

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