Lone Mothers' Employment Trajectories:

A Longitudinal Mixed-method Study

Emanuela Struffolino, Laura Bernardi, Ornella Larenza

Abstract: Using a mixed-method design, this study explores the heterogeneity in employment trajectories before and after the transition to lone parenthood in Switzerland. First, we perform sequence and cluster analysis on data from the Swiss Household panel to identify typical employment trajectories around the transition to lone parenthood, and then estimate their association with individual and household characteristics (N=462). Finally, we contrast these results with findings from a content analysis of narrative interviews with lone mothers residing in Switzerland (N=38), focusing on values and norms concerning work and care. We identify five employment patterns characterized by either an increase in labor supply (especially for those with more/older children) or by stability in or outside the labor market (for highly educated or younger mothers respectively). The analyses of the interviews provide insights on how employment opportunities and decisions differ by entry mode into lone parenthood, the post-separation relationship with the children's father, and the ability to mobilize individual, social and institutional resources. The heterogeneity of employment trajectories calls for more attention to within-group differences rather than focusing exclusively on the divide between lone and coupled mothers. By identifying the multiplicity of factors shaping lone mothers' decisions on their labor market participation, this work feeds into the literature suggesting that effective policies encouraging lone mothers' labor-market participation should consider: (i) their normative priorities when facing work and care trade-offs, and (ii) the availability of informal and formal support.

Keywords: Employment · Lone parenthood · Mixed-method · Sequence analysis · Switzerland

1   Introduction

The primary reason why parents have raised children alone in the last 30 years has been ever-growing union instability (*Nieuwenhuis/Maldonado* 2018). The most common pathways into lone parenthood in the 21st century are divorce and separation, while widowhood, pregnancy, or adoption by individuals not living in a couple have diminished in importance since the 1980s. Consequently, the share of the population experiencing lone parenthood is growing and becoming increasingly heterogeneous. The duration of lone parenthood is falling on average (*Bernardi et al.* 2018) but transitions to lone parenthood may imply a process with blurred boundaries rather than an abrupt event (*Bernardi/Larenza* 2018). Lone parenthood remains a predictor of poverty, fragmented work histories, and poor health for parents (e.g., *Brady et al.* 2017; *Struffolino et al.* 2016).

Lone parenthood is a gendered phenomenon in the vast majority of cases in heterosexual couples. Lone parents are mostly women, who often face gender inequalities in the distribution of paid and unpaid work combined with poor family-work reconciliation policies (*Hübgen* 2018; *Nieuwenhuis/Maldonado* 2018). In most countries, laws and social norms relating to parenthood reinforce such inequalities. Even if they have previously entered the labor market, women with children are more likely to experience interrupted work histories than men and childless women; consequently, they are more frequently secondary earners in couples than men. Mothers are therefore more financially vulnerable following separation or divorce despite being in employment (e.g., *Fisher/Low* 2015; *Hübgen* 2020) and they rely on social assistance more often than men (e.g., *Kessler et al.* 2018).

The effects of transitions to lone parenthood on labor market participation had to be considered together with the higher-priority needs of childcare support and economic resources within the household. Existing research on lone mothers' labor market participation is mostly based on cross-sectional analyses, showing heterogeneities by country (i) in the likelihood of lone mothers' being employed compared to coupled mothers (*Looze* 2014; *Western et al.* 2008), (ii) in the responsiveness of lone mothers to incentives to move from welfare into work (*Athreya et al.* 2014), and iii) in the timing of transitions into and out of the labor market after lone parenthood (*Stewart* 2009). A few longitudinal studies consider how labor market trajectories before, during, and after lone parenthood differ depending on individual and household characteristics (*Struffolino/Mortelmans* 2018; *Zagel* 2014). These works show at best that employment trajectories before lone parenthood (*Stewart* 2009) and contextual factors, such as the welfare state, influence lone mothers' careers afterwards (*Zagel* 2014). However, they cannot determine the connection between objective constraints/resources and subjective perceptions of norms and values regarding work and care in influencing lone mothers' employment trajectories.

We fill this gap by adopting a life-course mixed-method approach. First, we reconstruct the trajectories of lone mothers' labor market participation before and after the family transition and identify typical patterns. We then estimate the probability of different patterns on the basis of individual and household characteristics that help or hinder labor market participation. We finally contrast these results with the

findings of the content analysis of narrative interviews focusing on lone mothers' employment decisions in relation to values and norms concerning work and care. In this respect, lone mothers face a dilemma: to be a working lone-mother with little public support, or to be unemployed and/or reliant on social assistance. Therefore, lone mothers – depending on their initial labor market status – may find it preferable to reduce or suspend their labor force participation in the short run to cope with time and other pressures related to the lone parenthood transition. This short-term strategy reduces care costs, but can lead to negative outcomes in the long-run, in that it can result in the depreciation of skills and employability and undermine the chances of earning sufficient income in the long-run, when children's financial needs increase (e.g. costs for extra-school activities or investment in higher education). Assuming that such dynamics are similar to those of other Western countries, there are at least three reasons which make it important to study the Swiss case: first, a high divorce rate, resulting in more than 40 marriages in every 100 ending in divorce since 2002 (*SFSO* 2017a); second, the absence of a "general unemployment problem", i.e. the employment rate is high and protection in the event of unemployment is more generous and effective than in other countries; third, limited public support for families (*Le Goff/Levy* 2016), especially for those deviating from the "nuclear family norm" (*Rossier et al.* 2018). Since most studies on the relationship between lone parenthood and employment trajectories have been conducted in countries with higher unemployment rates and lower social protection – such as the US and the UK – the Swiss case represents a different set of opportunity costs for lone mothers. We concentrate on women because, in the Swiss context, they represent the large majority of lone parents. Moreover, they have increased needs for economic resources and childcare support during lone parenthood in a context where traditional gender norms persist. Ultimately, this exposes them to great practical difficulties and related moral dilemmas.

2   Labor market participation before and after the transition to lone motherhood

The situation of lone mothers regarding labor market participation is distinctive. Theoretically, this population challenges the classic economic approach to the division of labor within the family (*Becker* 1981) because lone parents cannot share day-to-day care and breadwinner responsibilities with a partner – although both care and resources have been found to be shared and pooled unequally within couples (see *Bennett* [2013] for a review). Lone mothers' finances depend more on women's labor supply and child maintenance payments. The former depends on their childcare needs and the accessibility (availability and economic/social costs) of external childcare. Furthermore, because childcare is mostly conceived as a "matter for mothers", mothers sometimes opt not to contravene such a rooted social norm and decide not to use childcare services, in spite of their needs and regardless of service accessibility (*Schenk* 2000).

The increasing heterogeneity in birth cohorts, education, and age distributions of lone mothers (*OECD* 2014) is likely to be reflected in the different labor-market-participation pathways and in the different motivations and rationales underpinning them. Moreover, a differentiated opportunity structure among lone mothers based on individual and household characteristics might lead to increasing within-group inequality over the life course. However, researchers have not studied the effects of the increasing heterogeneity in lone-parent characteristics extensively. The existing longitudinal studies only consider how labor market trajectories during the transition to lone parenthood are influenced by individual and household characteristics or how they differ across welfare states (*Struffolino/Mortelmans* 2018; *Zagel* 2014). Yet differences in the mechanisms behind labor market participation strategies cannot be identified by survey data. This data can neither reveal subjective motivations over time nor scrutinize the mechanisms interpreted by individuals as enabling them to overcome objective constraints or to activate resources.

2.1 Obstacles to lone mothers' labor market participation

Two factors can influence lone mothers' attachment to the labor market. First, the decrease in disposable income resulting from the transition to lone parenthood (*Jarvis/Jenkins* 1999; *Kalmijn et al.* 2007) could push lone mothers to increase their labor supply. Second, lone mothers face competing resource demands due to the dual responsibility of being the main breadwinner and the primary caregiver (*Haux* 2013). The outcome depends on the availability of opportunities to externalize childcare and the associated costs, the value of individuals' skills on the labor market, and the economic support they can obtain from the nonresident parent or from public benefits. These two mechanisms, however, can behave differently depending on the life-course phase at which lone parenthood occurs. This, in turn, is indirectly associated with household composition.

Individual characteristics
When lone parenthood occurs at an earlier age, individuals who did not complete formal education can be excluded from the labor market or may end up in low income jobs due to their lower qualification and employability levels. Hence, very young lone mothers often find themselves in a spiral of cumulative disadvantage that affects life domains beyond employment; this makes it even harder for them to subsequently improve their qualification level (*Jaehrling et al.* 2015).

Pursuing higher education, hence entering the labor market at a higher age, generally corresponds to stronger labor market attachment (*Eurostat* 2017). Women who choose to leave the labor market temporarily after having children or who substantially reduce their labor supply to provide childcare due to adequate income from the partner, may have to reconsider this after separation. Women who have been lone parents since the transition to motherhood may also have to reconsider their engagement with paid work. In both cases, women with relatively low education levels might have to reduce their labor supply because they cannot afford full-time childcare due to insufficient earnings. Alternatively, they could simply drop out

of the workforce because of the low opportunity costs. In contrast, having at least some college education is generally associated with stronger labor market attachment: after the transition to lone parenthood, these mothers can either increase their labor supply or work in more flexible jobs (e.g., part-time work) when generous and regular child maintenance support from the father makes up for the reduced income. However, declines in human capital investment during marriage as the result of unemployment/inactivity, may hinder the uptake of paid work.

Household composition

In contexts where childcare cannot be outsourced due to poor state welfare provision or the high costs involved, the presence of more than one child (at least one of whom is very young) is crucial in prompting lone mothers to give up paid employment and provide childcare as their main occupation (*Damme et al.* 2009). Starting to cohabit with a (new) partner represents an additional source of variation in household composition that might have implications for lone mothers' labor market participation. Exploring these aspects has become possible only recently: using high-quality data, recent findings highlighted the fact that the presence of a resident and non-resident partner plays an important role within lone mothers' decisions in different life domains and have an effect on their wellbeing (*Bastin* 2012; *Bastin* 2019; *Fux* 2011; *Langlais et al*. 2016).

Norms and values

Adjustments in labor supply may be influenced by cultural expectations regarding women's work-family balance (*Bakker/Karsten* 2013; *Krüger/Levy* 2001). Traditional gendered norms concerning motherhood generally support an unequal division of paid and unpaid work between mothers and fathers and become a trap for mothers when they enter lone parenthood, unless fathers change their approach/attitudes. Having said that, norms may differ depending on mothers' socioeconomic circumstances. Indeed, from a normative point of view, working middle-class mothers are generally encouraged to limit workforce participation in the interest of their children (see *Hennessy* [2015] for a review). This is problematic as, for example, it may prevent employers from offering promotion to lone mothers, fearing that they would not be able to work more, as they would wish to provide adequate care for their children. At the same time, work-first policies emphasize the value of personal autonomy and financial independence for mothers in need of social support (*Brady* 2019; *Millar* 2019). Hence, based on a specific interpretation of the work-first discourse, lower-class lone mothers are encouraged to work to increase their resilience to financial strain, but this may entail moral dilemmas: such policies may overlook the complexity of their individual situation and ignore how their actions will affect their significant others. For example, mothers who take up a job suggested by the authority providing welfare assistance may suffer if their parental relationship worsens and they are not receiving adequate childcare support. Subjective perception and assessment of existing norms also play a role. Lone mothers in the same position may still interpret it differently and decide not to comply with prevailing social norms, depending on their personality, education and past life experience

(*Larenza* 2019). This is also the case with norms regarding mothers' labor market participation and use of childcare facilities (see above). For example, mothers in highly qualified jobs may strive to increase (or keep up) their (high) level of labor market participation because they think this is important for their own wellbeing and their children's future development, while being stigmatized by colleagues for being neglectful and irresponsible.

3   The Swiss case

In Switzerland, around 15.2 percent of children under the age of 18 live in oneparent households and around 50 percent of the divorces involve children (*OECD* 2011 based on 2007 data). Around 14 percent of households with children under 25 are lone parent households, and the great majority of these (84 percent) are headed by a mother (*SFSO* 2017b). A lone parent household's income is far lower than that of other households – the only household group with lower income is that of individuals aged over 65 and living alone (*SFSO* 2017b, speficically for years 1998-2009). This is partially explained by the gender inequalities in the labor market (*Branger et al.* 2003). Women's labor market participation is higher in Switzerland than in other European countries (*OECD* 2015b), but they are mostly concentrated in part-time jobs and this is not exclusively a matter of choice. After the birth of the first child, mothers reduce their employment rate and rarely manage to increase it again afterwards (*Bühler/Heye* 2005). Lack of statutory parental and paternity leave also contributes to this (*Valarino* 2014). The labor market activity rate for women in Switzerland has increased in recent years (from 68 percent in 1991 to 79 percent in 2014), but differences between men and women persist in this respect and in the pay gaps, which have even increased over time (*Bühlmann et al.* 2012).

   After separation or divorce, custody is still customarily assigned to mothers, although a recent reform introduced an obligation for the judge to consider if shared custody is possible, and if one of the parties (the mother, the father, or the children) requires it despite the opposition of any of the other parties.[1] Mothers are often the creditor of maintenance payments for their children. The amount may vary significantly depending on the agreement between the parents or on the method of calculation adopted by the judge if no such agreement exists. However, at least 20 percent of non-custodial fathers violate such obligations, according to current statistics (*Arnold/Knöpfel* 2007). Lone parents are formally subject to the same rights and duties as coupled/married parents under Swiss family law. However, there is a clear bias in favor of formerly married parents in that, after separation, pension contributions can only be split between parents who were married *(Larenza* 2019).

   Switzerland is an ideal context in which to disentangle the relationship between the transition to lone parenthood and employment because of its social policies

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[1]   Such a reform was passed in 2017, meaning that none of the parents in this study were subject to it.

which may affect employed parents in this transition. On the one hand, unemployment benefits are more generous in Switzerland than in other OECD countries (*OECD* 2015a). Similarly, social assistance is also more generous in relative terms, but access may differ depending on the regulations in the individual cantons (*Obinger* 1999; cantons are the federated states of the Swiss Confederation). On the other hand, work-family reconciliation policies are weaker here compared to other Western welfare states. Existing studies show poor availability of childcare services across the country (e.g. *Bertozzi et al.* 2005).

Against this backdrop, individuals' professional trajectories are less vulnerable to the scarring effects of unemployment than elsewhere: longer job-search periods may reduce the risk of having to accept low-quality and unstable temporary jobs in the short term rather than better opportunities in the long term. However, despite the dramatic increase in the use of non-family daycare in the last decade, facilities are still relatively expensive and underprovided (*Schlanser* 2011). As a consequence, there is widespread use of non-institutional childcare (both formal and informal): in 2013, 21,30 percent of children aged 0-3 used both institutional and non-institutional childcare, 35 percent only non-institutional (*SFSO* 2017b). Lone parents with poor networks and limited economic resources might face additional obstacles when having to combine work and care.

Finally, residential mobility may also be difficult due to the federal nature of the welfare state, i.e. policies that are crucial for lone mothers are administered at the cantonal level (e.g. children's allowances, taxation rules, social assistance, and childcare). Advances of maintenance payments represent a typical example of a policy targeted at lone parents that differs across cantons in terms of duration, amount and eligibility criteria. Such factors may lead mothers to adjust their labor market participation if they only receive the benefit for a short period, for example.

In summary, lone mothers face a dilemma: to be a working-lone-mother with little public support, or to be unemployed and/or rely on social assistance. Therefore, lone mothers – depending on their initial labor market status –may find it preferable to reduce or suspend their labor force participation in the short-run to cope with time and other pressures related to the lone parenthood transition. This short-term strategy reduces care costs but can lead to negative outcomes in the long-run. It can result in skills and employability depreciation and undermine the chances of earning sufficient income in the long-run when children's financial needs increase (e.g. costs for extra-school activities or investment in higher education). Assuming the situation is similar to that in other Western countries, there are at least two good reasons for studying the Swiss case: first, the high rate of divorce (more than 40 marriages in every 100 have ended in divorce since 2002 (*SFSO* 2017a)); second, the absence of a "general unemployment problem" (the employment rate is high and protection in case of unemployment is more generous and possibly more effective than in other countries). Since most studies on the relationship between lone parenthood and employment trajectories are conducted in countries with higher unemployment rates and worse social protection – such as the US and the UK – the Swiss case represents a different set of opportunity costs for lone mothers.

4 Data and methods

4.1 Analytical strategy

We applied a mixed-method analytical strategy using a large-scale quantitative panel survey and a qualitative panel based on semi-structured interviews. We conducted a sequential exploratory/explanatory data analysis in which the content analysis of the interviews both anticipated and followed the quantitative analysis (*Creswell* 2003). We started by analyzing the interviews to explore the important factors for employment decisions. This was the basis for selecting the explanatory and control variables in the quantitative multivariate models that estimated the probability of following the different employment patterns identified by cluster analysis on individual employment trajectories associated with lone parenthood. We then returned to the interviews and classified the cases according to the similarity of lone mothers' employment trajectories to the main characteristics of the patterns represented by the clusters. Finally, we reconstructed the decision-making process around labor market participation. The rationale behind using such a mixed-method approach was twofold. First, it allowed consideration of the proportion of lone mothers represented in a given employment pattern (and their characteristics in the Swiss context). Second, it enabled us to understand such patterns by qualitatively exploring the moral dilemmas surrounding work and care, that is the perceived obligations and constraints faced by these women. All three authors liaised constantly regarding interpretation of the data from both types of analysis.

4.2 Identifying typical employment trajectories before, during, and after the transition to lone parenthood

The SHP collects longitudinal sociodemographic information and data on the living conditions of a representative sample of the Swiss population from 1999. However, only the 2001 and 2013 waves include a retrospective biographical calendar that enables the reconstruction of (among others) complete trajectories for living arrangements, partner relationships and changes in civil status, family events, professional activities. For these two waves it is therefore possible to identify a subsample of women who have been lone mothers at some point (due to separation/divorce, widowhood, or not living with a partner at childbirth), including before 1999. We further selected the sample to retain women who experienced the first transition to lone parenthood as an 18-54 year-old living with at least one child under age 18. The final sample consists of 478 women (4.2 percent of the initial 2001 and 2013 samples pooled).

Instead of considering single and isolated points in time, we rely on the theoretical and methodological framework of sequence analysis to consider longitudinal employment patterns as a whole (*Abbott* 1995). In other words, we do not simply estimate the timing or the probability of specific transitions between states (e.g. from employment to unemployment), but look also at "process outcomes", which

are career configurations conceptualized as the succession of different spells in different types of employment/unemployment as they unfold over time.

For this purpose, we reconstructed employment sequences for the 478 women in the analytical sample spanning 2 years before and 7 years after the transition to lone parenthood: opening the observational window before lone parenthood allows us to capture some of the effect on labor supply choices for women who anticipate a separation and start to increase their working hours accordingly. Each year of these 10-year sequences (the year when lone parenthood commences, 2 before, and 7 after) was coded according to the labor market situation at that point in time: part-time (between 20 and 89 percent of a 40-hour working-week) or full-time (90-100 percent) employment as employee or self-employed, or out of the labor force (either in unemployment or inactivity).[2]

Cluster analysis was used to detect typical employment trajectories before and after the transition to lone parenthood. The clustering procedure implies the computation of a pairwise dissimilarity matrix. Because the duration of the spells is of primary importance when evaluating the salient dimensions of working trajectories (such as stability), we used Optimal Matching with insertion/deletion costs equal to 1 and substitution costs equal to 2. This setting is theoretically more sensitive to differences in order than to those in timing of a state's appearance along the sequences (*Studer/Ritschard* 2016).[3] We applied the partitioning-around-medoids clustering algorithm (*Kaufman/Rousseeuw* 2005) to the dissimilarity matrix to group sequences in such a way that it maximizes both internal homogeneity and external heterogeneity. Medoids are representative sequences that have the smallest dissimilarity to the other sequences of the cluster they belong to. The average silhouette width (ASW) criterion is commonly used to measure the coherence of the assignment of each sequence to a cluster. ASW can vary between -1 and +1 (min./max. coherence): for our data, a five-cluster solution displayed an ASW value of 0.63, which indicated a strong structure in the data (*Studer* 2013). A partition can be considered as satisfactory if it identifies the most relevant types from a substantive/theoretical point of view with respect to the research question (*Piccarreta/Studer* 2019). In our case, a 5-cluster solution identifies substantively meaningful pathways that resonate with the experiences of mothers in the qualitative sample. A compre-

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[2] We combined unemployment and inactivity, as the vast majority of spells out of the labor force were characterized by inactivity: the average number of years spent in unemployment is 0.18 (versus 2.16 in inactivity). We ran all the analyses keeping the two states separate: the unemployment spells were residual, meaning that they did not contribute to creating an independent group even when allowing for solutions with a larger number of clusters and cases including some unemployment episodes scattered across different clusters. Results of the multinomial logistic regression for cluster assignment with clusters based on four states are highly consistent with those presented here.

[3] Given the small number of states we use to code sequences and sequence length, when conducting robustness checks using alternative costs (e.g. Longest Common Subsequence, insertion/deletion equal to 2 and substitution equal to 1 among others), cluster solutions are highly correlated and results of the multinomial logistic regression are consistent in terms of the direction and the significance of the effects. Results are available upon request.

hensive discussion of the reasons why we opted for a 5-cluster solution and the implications for within-sequence heterogeneity can be found in the notes to Figure A1 and A2 in the Appendix.

Finally, we estimated a multinomial logistic regression model for the probability of membership of the 5 typical employment trajectories identified by the cluster analysis as a function of individual characteristics and household composition. The latter are operationalized as: education (up to lower secondary, upper secondary, or tertiary); age of the woman when the transition to lone parenthood occurred (18-24, 25-30, 31-40, or 41-54); number of children under 18 living in the household (1, 2, or 3+); age of the youngest child (0-2, 3-5, 6-10, or 11-18). All the variables refer to when the transition occurred. Following the literature, the model is adjusted for the type of entry into lone parenthood (unpartnered at first childbirth, separation, or widowhood); year of transition to lone parenthood (up to 1979, 1980-1989, 1990-1995, or 1996-2005); nationality at birth (Swiss or other); wave (2001 or 2013). The results will be presented as adjusted predictions at group specific means (*Long/ Freese* 2014). The results expressed as exponentiated coefficients are available upon request.[4]

Three aspects need to be acknowledged. First, variables for which it might have been important to adjust the model are not available in SHP (for example, social support with care or the receipt of regular child maintenance support from the other parent). Second, we could not adjust the models for time-varying variables, as their change in value over time is endogenous to the longitudinal process captured by the clusters. Sequence analysis is a powerful analytical tool for uncovering patterns in longitudinal categorical data, but when clusters are used as the dependent variable in a regression framework they are crystallized in their temporal unfolding. For example, the regression models cannot include indicators for changes in the financial situation of the household over time caused by the presence of a (new) co-resident partner or changes in external support for childcare provided by (new) non-resident partners. Finally, we could not detect the presence of a non-resident partner in the retrospective biographical data. Therefore, we could not model the presence of a non-cohabiting partner at childbirth.

4.3 Content analysis of the qualitative interviews

The waves of the qualitative panel were collected in "The Multiple Paths of Lone Parenthood"[5] project on lone parents residing in the French-speaking part of Swit-

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[4] Sequence analysis is performed using the software R version 3.6.3 (*R Core Team* 2020) and the R packages TraMineR and TraMineRextras (*Gabadinho et al.* 2011; *Ritschard et al.* 2013). Regression models are estimated using STATA 16.

[5] The project, currently ongoing, is headed by Laura Bernardi within the National Center for Competence "LIVES. Overcoming Vulnerability: Life Course Perspectives" project funded in 2012 by the Swiss National Science Foundation. More information is available on the project website: https://www.lives-nccr.ch/en/page/multiple-paths-lone-parenthood-n3912. A summary of the empirical work conducted within the project can be found at https://www.lives-nccr.ch/en/newsletter/lone-parenthood-life-course-n2622.

zerland. The first wave contains 38 interviews conducted in 2012-2013 with lone mothers who had sole physical custody of at least one child between ages 0 and 13 at the time of the first interview and who had no co-resident adult.[6] 31 mothers agreed to be re-interviewed in 2015. Therefore, we could draw on longitudinal qualitative material from two time-points for the large majority of our initial sample. Individuals were recruited through a multiple-entry snowball approach and following a purposive sampling scheme aimed at maximizing the variability in education levels and patterns of entry into lone parenthood. The research design focused on the presence of one or more very young children (mostly 0-9 year-olds), who require more care compared to adolescents. For 36 mothers the transition to lone parenthood occurred 0 to 7 years prior to the first interview. The observational window from entry into lone parenthood until the first wave was 4 years on average (min. 0, as one mother was pregnant at the time of the interview, and max. 14). At the second interview, 6 years had passed on average since participants' transition to lone parenthood (min. 2 and max. 16). This sample complemented the analysis of the SHP subsample, as participants' stories included biographical information on the life-course prior to the transition to lone parenthood up to a substantial number of years after that.

The interview guidelines encompassed: the narrative reconstruction of educational, residential, employment, health and family trajectories; information on the current relationship with the noncustodial parent (negotiations over custody and child maintenance); individuals' social networks; and access to various kinds of institutional and informal support. The semi-structured nature of the interviews allowed the subjective motivations underpinning specific lone mothers' behaviors to be elicited in each domain. This was particularly useful for understanding how interviewees define and/or interpret norms and values associated with parenting, reconciling work and private life, and the extent to which their decisions in the professional domain were inspired by such norms and values. Ex-post rationalization biases were tackled in two ways. First, by eliciting inconsistencies in the interviewees' discourse through specific questions, we could identify and address a meaningful "reconstruction" of the past. Second, the longitudinal setup allowed us to identify potentially divergent interpretations of the same event across waves. Having said that, it was important to retain attempts to renegotiate events as important pieces of information, as they allowed us to make sense of interviewees' changes of perspective on their life events.

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[6] Our interest was in exploring "solo" living in all its variety, so we left open the kind of relationship with the father of the child or a new partner. This yielded a great variety of situations which were relevant for the different levels of emotional and/or practical support (or the lack of it) but less for the mothers' decision regarding employment. This is possibly due to the fact that a partner who is not invested in cohabitation is of limited relevance in terms of economic and employment decisions. We cannot exclude some social desirability bias to social norms surrounding financial responsibilities.

Qualitative materials include full transcriptions, field notes, and comprehensive case summaries. Moreover, during the semi-structured interview we asked the interviewees to fill in a biographical calendar similar to the one completed by the SHP interviewees on employment, partnership and parenthood trajectories. This permitted us to place the information collected during the two qualitative waves within the individuals' broader life courses.[7] Drawing on *Fereday* and *Muir-Cochrane* (2006), we used a combination of inductive and deductive coding to capture the motivation for taking paid work before and after lone parenthood. Initial nodes: the possible trade-offs and compatibilities with parenting, factors like the accessibility of public support; the regularity of maintenance payments from the father and uncertainties related to custody; support from the social network including a new partner, as well as the health of the lone mother, her child/ren, or their father. Finally, we developed a dual perspective for analyzing the data (*Holland et al.* 2006; *Kuckartz* 2019; *Larenza* 2019): a longitudinal examination of each story (data as cases) and categorical examination across stories to identify commonalities and divergences in individual trajectories (data as content category). This was valuable as it allowed us to profit from the systematicity of constant comparisons through content analysis and from the consideration of the subjective reconstructions through case narration.

4.4   Summary statistics

Table 1 provides descriptive statistics for the independent variables relative to both the quantitative and the qualitative samples. The right column shows that the distribution of the interviewees according to the major variable of interest for the quantitative analyses matches the distribution of the qualitative sample relatively well. This is useful for triangulating the results from the two data sources.

Two differences between the samples are notable. First, women in the qualitative sample had experienced lone parenthood for 4 years on average prior to the first interview. This choice was deliberate because we wanted their retrospective account of the transition to lone parenthood to be relatively close to the time of the interview. Second, women with a lower secondary education are underrepresented in the qualitative sample. The difficulty in sampling individuals belonging to disadvantaged groups is a well-known issue in qualitative data collection (*Abrams* 2010; *Penrod et al.* 2003). Our results are conservative given the association between low education level and higher exposure to the risk of unemployment, poverty, and difficulties in combining work and care.

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7   Each interview lasted between 1 and 3 hours and was taped and fully transcribed. To protect participants' identities, their real names together with the names of the people they mentioned were substituted with pseudonyms. The coding was conducted using the software Nvivo (version 11).

Tab 1: Distribution of the main independent variables across the quantitative and qualitative samples

	SHP 2010 & 2013	Qualitative interviews (% and N)	
Education			
Lower secondary	41.9	7.9	3
Upper secondary	45.6	44.7	17
Tertiary	12.6	47.4	18
Age upon becoming lone parent			
18-24	11.6	5.3	2
25-30	26.8	26.3	10
31-40	44.1	57.9	22
41-54	17.5	10.5	4
Number of children upon becoming lone parent			
1	52.2	60.5	23
2	35.0	34.2	13
3+	12.9	5.3	2[a]
Age of the youngest child upon becoming lone parent			
0-2	37.5	71.0	27
3-5	19.7	23.7	9
6-10	26.3	5.3	2
11-18	16.5	0.0	0
Type of entry into lone parenthood			
Unpartnered upon birth of first child	23.3	18.4	7
Separation	68.0	76.3	29
Widowhood	8.7	5.3	2
Year upon becoming lone parent			
Up to 1979	26.4	0.0	0
1980-1989	26.5	0.0	0
1990-1995	18.4	0.0	0
1996-2005	28.7	5.3	2
2006-2013		94.7	36
Nationality at birth			
Swiss	83.6	76.3	29[b]
Other	16.4	23.7	9
N	*478*	*100.0*	*38*

[a] In one case the mother had two children from a previous relationship.
[b] Six women migrated to Switzerland by the age of 15 and in most cases obtained Swiss naturalization.

Source: Authors' calculations. SHP data, biographical calendar 2001 and 2013 (weighted); qualitative panel "The Multiple Paths of Lone Parenthood", wave 1 (2013).

5   Results

5.1   Employment trajectories before and after the transition to lone motherhood

Figure 1 displays the five clusters which represent different typical employment pathways spanning the 2 years before and 7 years after the transition to lone parenthood. Each subplot contains 30 representative individual sequences of the sequences allocated to each group. Almost 80 percent of lone mothers in the sample belong to one of three clusters that are strongly characterized by stability in one single state: *out of employment*, *part-timers*, and *full-timers*. Most of the individuals who were assigned to these clusters do not change their labor supply after the transition to lone parenthood: the overwhelming majority maintains steady attachment (29.5 percent in part-time and 29.9 percent in full-time jobs) or remain in/leave the labor force after the transition to parenthood (16.9 percent).

The remaining 23 percent of lone mothers were allocated to the two remaining clusters, namely the *returners* and the *strengtheners*. In the case of cluster 2 *returners* (12.1 percent), mothers' employment trajectories are characterized by two or more years out of the labor force before and/or around the transition to lone parenthood that develop over time towards stable part-time employment. Some of these lone mothers may have been young when they became a lone parent, meaning that inactivity might actually conceal time spent in education. With respect to cluster 4 *strengtheners* (11.5 percent), the characteristic shared by the vast majority of mothers' trajectories in this group is having spent between 1/3 and 1/2 of the time-span in part-time work and the rest in full-time work from/some years after the transition to lone parenthood. We acknowledge that some women (24 percent within this cluster) are actually "reducers", as they move from full-time to part-time work or from part-time work to out of the labor force. This pattern did not emerge as a separate cluster although it is of substantive interest. As highlighted in the methods' section, cluster analysis is a data reduction technique and (like all techniques of this kind) it requires a certain amount of simplification to let substantively meaningful (and interpretable) trends/patterns in the data emerge. "Simplification" in the case of cluster analysis applied to sequences means that we have to accept a degree of within-cluster heterogeneity in order to identify groups of sequences that represent a similar process.

5.2   The role of individual characteristics and household composition for employment trajectories

Figure 2 displays the adjusted predictions at group specific means for cluster membership by individual characteristic (panel (a)) and household composition (panel (b)). A younger age (18-24) at the transition to lone parenthood corresponds to a slightly higher likelihood of being among those *out of employment* or *full-timers* (24 and 53 percent respectively). Being older when experiencing lone parenthood is associated with a much lower probability of being *inactive*, combined with a higher

Fig. 1:   Individual employment trajectories before and after the transition to lone parenthood: 5-cluster solution
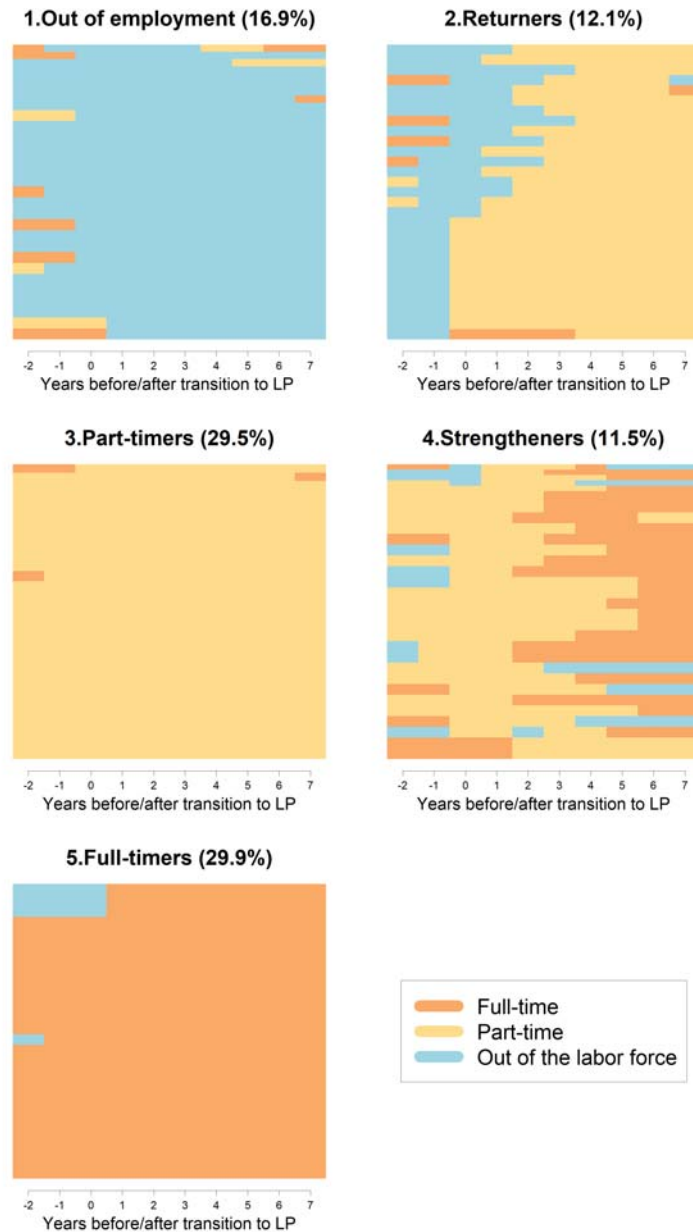
Notes: For each cluster, 30 representative sequences are shown (*Fasang/Liao* 2014) and ordered by the employment status at time *t0* (x-axis), indicating the year when the transition to lone parenthood occurred. The assessment of the representativeness can be found in Figure A3 in the Appendix.

Source: Authors' calculations. SHP data, 2001 and 2013. N=478.

Fig. 2: Adjusted predictions (percentage points) at group specific means for assigment to the clusters
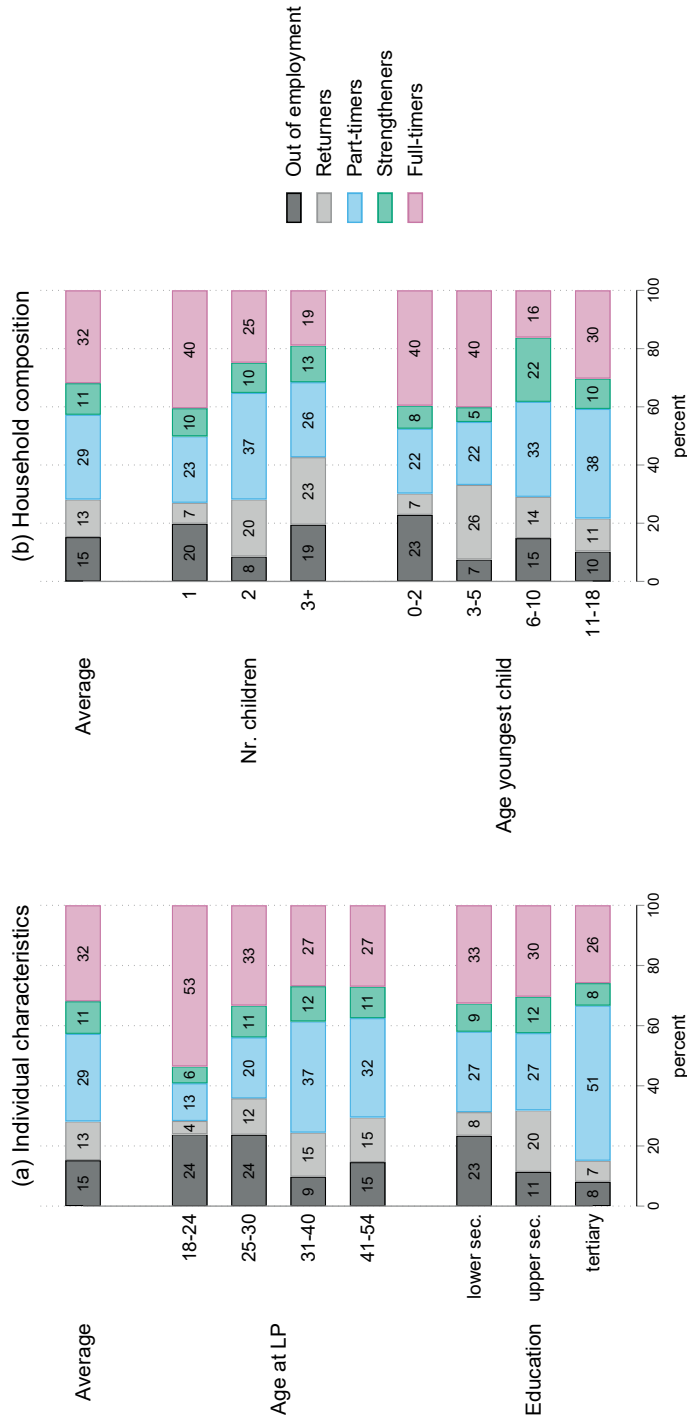
Source: Authors' calculations. SHP data; 2001 and 2013 (weighted). N=478. Table A1 displays results from the full model.

likelihood of being in long-lasting *part-time* work and being a *strengthener*. Tertiary education is associated with long-lasting *part-time* work (51 percent), whereas having a lower-secondary education implies higher probabilities of being *out of employment* (23 percent) or a *full-timer* (33 percent) compared to both tertiary and upper secondary education. Interestingly, lone mothers with an upper secondary qualification are more likely to be *returners*.

As far as household composition is concerned, panel (b) shows that the presence of more than one child in the household is associated with a decrease in inactivity and full-time employment trajectories (from approximately 20 to 8 percent on average for those *out of employment,* and from 40 to 19 on average for *full-timers*). As the number of children in the household increase, lone mothers are more likely to be *returners* (especially when children are 3+). The trend across the age of the youngest child in the household is less clear-cut, but two interesting results emerge. First, lone mothers whose youngest child in the household is 0-2 or 3-5 years-old differ only with respect to a higher probability of being *out of employment* for the former and of being a *returner* for the latter. Second, lone mothers with the youngest child aged 6-to-10 are the most likely to strengthen their labor market participation (approximately 22 percent), while mothers with older children are more likely to have held part-time work around the transition to lone parenthood (38 percent).

All differences highlighted so far are statistically significant. In sum, following employment trajectories characterized by different degrees of stability in one state is associated with different life-course stages signified by the subject's own age and age/number of children, but also with individual resources proxied by education. However, a consideration of relational/partnership histories together with norms and values is necessary to address the question of *why* such employment choices were made. The subjective accounts from the qualitative interviews will enrich our understanding of these dynamics in the transition to lone parenthood.

5.3   A qualitative account of what shaped labor market participation around lone parenthood

A range of factors could shape respondents' employment trajectories before and after the transition to lone parenthood: the *type of entry into lone parenthood*, *the relationship with the noncustodial parent* (when present), and the possibility to *mobilize resources* (both accumulated (e.g. education, job position) and transient (e.g. social and institutional support)). The same five typical patterns of the quantitative study emerged in the qualitative study. Specifically, 25 single mothers reported little variation in employment after the transition to lone parenthood (*relatively stable arrangements: out of employment, part-timers, and full-timers*), while 11 of them had either a gradual or a sudden need to change their working arrangements (*increasing working hours: returners and strengtheners*). One extra category included women who faced a turning point in their professional trajectory.

5.3.1 Relatively stable employment statuses across lone parenthood

Out of employment

Two interviewees were not regularly employed before becoming mothers and did not change their status thereafter. They have received social benefits since their transition to lone parenthood after separation or divorce, which occurred in their late-20s/early-30s. Both had a low level of education and very young children at the moment of the interview. Pilar's story is a case in point. She migrated to Switzerland as a teenager and worked occasionally until she married at 20. She separated at 25, at which time she had two young children (aged 1 and 5). Pilar did not have access to adequate legal assistance and was not aware of the existence of public support with litigation costs. Hence, she had to accept unfavorable divorce conditions including formal shared custody, which turned into *de facto* full custody (due to the other parent's neglect) and no maintenance for her children. She had no public childcare for her small child and could only count on her sister's occasional support. Consequently, she had little time to look for a job. Pilar is not happy with her situation and states clearly that her ex-husband is very unfair. However, she is so powerless that the only way to make sense of her situation and tolerate her current circumstances is to renegotiate it with herself, saying that what really matters is that her children can live with her and not with a neglectful father. Pilar is caught in a moral dilemma that she solves by resorting to social norms prescribing good mothering and justifying as a choice what in fact is an imposition: *"Anyway, it's me who has accepted all this … if I accepted all this it is for the children … but, him, he doesn't understand anything about that … and now I often have the children at home, I don't care … I love my children".* What both mothers in this category have in common are limited socio-economic resources to face the transition to lone parenthood and change their professional situation thereafter, and very young children to provide for. As Pilar's story highlights, further potential obstacles to activation in lone parenthood include: lack of support with childcare, both from the other parent and from public institutions; poor social network to supersede the lack of support with childcare; and no financial support with child maintenance. A migrant background may further hinder paid work uptake if the person is not aware that support is available from public institutions in the country. Finally, Pilar's story shows how norms around motherhood may prevail in the quest for a more egalitarian division of unpaid work.

Part-timers

17 mothers belong to this category and have either tertiary education or an upper secondary professional diploma, which are highly valued in Switzerland and normally give access to relatively well-paid jobs. The main income sources for these lone mothers are employment, child maintenance payments, widowhood pension, temporary or lump-sum social benefits, or a combination of several of these. There are two major life-course configurations among part-timers. The most common one applies to women who have a stable, adequate income, which may include child maintenance from the father; these lone mothers could also count on social support

and appropriate childcare. These women considered part-time employment as an ideal working arrangement to fulfill their double role of breadwinner and caregiver.[8] For example, Natasha was 26 years old and had a 10-month-old child at the transition to lone parenthood. When she was in a couple, she was working part-time (50 percent) and studying. She finished her tertiary education as a lone mother. Afterwards she increased her part-time hours (60 percent of full-time hours, and then 80 percent), as the child had grown up. For her, this was the right way to balance caregiving and income-earning. To complete her studies she could count on welfare benefits (including a scholarship) and a supportive and stable social environment, with neighbors ready to provide emergency care, a good relationship with the child's father including a well-functioning arrangement for visitation and child maintenance. Unlike Natasha, many women faced significant obstacles to improving their financial situation after separation. These belong to a second subgroup of part-timers. In such cases, mothers could not increase their labor supply because they could not easily change their employment conditions, or because they would lose income if they did so (childcare-fees are set in proportion to the parents' income). For instance, Vivianne was 42 years old when she gave birth to her first and only child from a non-cohabiting partner. The relationship rapidly deteriorated following the birth of the child, the father refused to pay child maintenance and to offer any regular childcare support. Vivianne was socially isolated and this is likely to have made her even more dependent on the support of the other parent. At the time of the interview, Vivianne was working as a professor at between 50 percent and 65 percent of full-time hours on largely temporary contracts. She would have been happy to increase her employment rate, but her employer officially rejected her request, yet required her to commit herself to performing extra unpaid work. Receiving welfare benefits was not easy, as constant changes in her employment rate impacted on her eligibility for social assistance. Despite having only one child and a high level of education, the two mothers epitomize two different ways of viewing and using part-time employment before and after the transition to lone parenthood. Natasha adheres to the social norm that mothers should work part-time: she states that, for her, this is the right compromise which gives her enough time for herself and her child, and allows her to improve her career later when she will take over from her superiors who are about to leave: "*I feel I am not made for working full time, because I have a child and my everyday life to cope with … (…)I think one must make the most of one's life, and there are more things to do than just work, even though I like my job…*". Vivianne subscribes to the same norm, but has a completely different understanding of it: for her, part-time work is a trap which is difficult to escape, rather than an opportunity. It imposes further (financial) strain on her private situation (no support with childcare or maintenance): "*There is a problem with the law and the corporate culture concerning motherhood [there is still a lot to do]. I mean, when I said that I needed to increase my worktime because (…) I*

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8   The majority of mothers (both single and in couples) in Switzerland work part-time (*SFSO* 2017b).

am a lone parent and I do not receive any child maintenance support. It's true that I did not receive any maintenance. Well, they told me <<It's your choice>> ... That was the answer <<Your private life does not concern us>>"

Full-timers

These six women exhibited different levels of education and types of employment. According to their accounts, how they combined the latter and the relationship with the former partner after separation (or the type of welfare support in case of death of the other parent) shaped how they experience the transition to lone parenthood and the significance they attached to their professional trajectories thereafter. When mothers had a stable and very well-paid job before their transition to lone parenthood, receiving support with childcare and child maintenance from the former partner may not be a crucial issue, especially if they were allowed some degree of flexibility in terms of working hours. If the wage allowed for adequate childcare, no major upheavals occurred. Working full-time in such cases is not just a matter of making ends meet, but rather it seems to fulfill the mothers' desire for full professional satisfaction and for maintaining high living standards. For example, Dorothea had her first child with a cohabiting partner, whom she separated from during pregnancy. Dorothea never received financial support from him but was entirely able to provide for herself and for her child thanks to her job as a manager in a multinational company. Dorothea always outsourced care when the child was in preschool and had the flexibility she needed to cope with emergencies. She explained that she kept her full-time position and never stopped investing in her career, even when her child was very young. This allowed her to live the life she wanted and to spend enough time with her children, thanks to the flexibility she could eventually gain with her top-manager position. For some mothers, keeping a full-time position was a necessity rather than a choice. This was the case for those who earned average wages and obtained no support from their former partners and were therefore forced to keep their employment rate high enough to make ends meet. Catalina explained this clearly. Since her separation she had to live on her wage as an office worker. She would have liked to decrease her employment rate from 100 percent to 90 percent which would have allowed her to spend a whole afternoon with her child during the week, but she was on a tight budget. Remaining in full-time work kept her out of poverty. In such cases, staying in full-time work equates with coping with a constraint rather than achieving a higher degree of freedom, as is the case with Dorothea. In comparison with Catalina, Dorothea's criticism of the traditional form of motherhood has always been one of the main drivers of her career choices. However, her socioeconomic condition and wealthy family background allowed her to reconcile her values and her actions. Catalina's decision to accept a full-time job was in tune with a traditional view of good mothering, which prescribes that it is impossible to take good care of children while in full-time employment. Nevertheless, her interpretation of "what is best for a child" was inevitably influenced by her precarious financial situation, the inflexible worktime, and the impossibility of finding alternative ways to provide adequately for her child.

5.3.2 Increasing working hours during lone parenthood

Returners

Most of these six women withdrew temporarily from the workforce to devote time to their young children. After the dissolution of their union, they re-entered the labor market. Françoise was in her thirties during her transition to lone parenthood and had a professional diploma as a medical assistant. She interrupted her part-time work (40 percent) when she became mother of two children, who were 4 and 6 when she separated. She then worked on an 80 percent contract during the two years of uncertainty and acrimonious negotiations regarding maintenance and custody with the children's father to ensure an adequate standard of living for the family. In some cases, the fact that the children were not entitled to maintenance (e.g. because they were not recognized by the other parent) influenced the mother's decision to return to work, although this might be problematic with young children. For example, Martine was in a homosexual couple. She was highly educated and was freelancing occasionally in the art field when her partner gave birth to their first child. After giving birth to their second child, she gave up working almost entirely. Her partner pursued her career while Martine assumed the role of a full-time mother. At separation she found herself in a precarious financial situation. She could not claim maintenance for her biological child, as there was no legal filiation between her biological child and her ex-partner. In addition, she decided not to claim the alimony set in the partnership contract because of the possible negative repercussions this might have on the relationship with her ex-partner and the fear of losing contact with her nonbiological child. Martine strove to find work but few positions were available in her field that would be compatible with her role as a mother with two young children. She did not apply for positions which required a commute or frequent travel. She remained unemployed until she could take a part-time temporary job in her field. Unlike the first two mothers, Béatrice did not withdraw from the labor market. As with Martine's case, she could not receive maintenance for her child and put all her effort into searching for work. This involved taking multiple part-time jobs, on-the-job training, and some commuting. Béatrice had almost no support with childcare. She resisted the stressful everyday organization this would have involved and imposed many changes on her small child. To her, this was the only possible way to achieve professional stability, although she reports that the relationship with her son might have been compromised to some extent as a consequence. These cases show different approaches to social norms towards motherhood. Françoise and Martine adhered to such norms and were primarily involved in childcare, but changed their mind after their transition to lone parenthood. Their ability to find work was influenced by the availability of jobs in their respective fields. Béatrice always rejected such norms and decided to prioritize her career, aiming at building a better future for herself and her child. However, she expressed dissatisfaction with her parental life.

Strengtheners

The stories of these five lone mothers feature irregular or non-existent commitment on the part of the noncustodial parent, stable careers and the possibility to adjust

labor supply according to their needs. This is clear in Vanina's case. She used to work full-time before the birth of her child. Her partner took no responsibility for the child despite officially acknowledging fatherhood. When the couple broke up, the child was 3 years old. After two years with no regular payments or childcare support from the father, she went back to work full-time. This was possible thanks to the support she received from her parents and the father's family. Despite sacrificing time beyond her paid-work, Vanina decided to remain in full-time work even when the father started to pay some maintenance and meet the child more regularly, as she could not be sure that this would last. Mothers in this group do not feel the pressure of social norms associated with good motherhood – which prescribe part-time work for mothers – in any of the phases of their employment trajectories, and change their employment rate in response to contingent needs and opportunities. As with some full-timers, increasing the time devoted to paid-work may be perceived as problematic insofar as it requires giving up time for other activities unrelated to childcare, such as continuing education. As Vanina states: "*So I cope, but I cope on a 90 percent contract. This means that I cannot (…) take courses for the time being. I have other projects, other professional projects (…) but financially… I cannot save any money because I have to provide for my child alone.*"

5.3.3 Turning points

Employment trajectories characterized by unpredictable and radical changes throughout the professional careers could not be identified as a separate cluster in the quantitative analytical step, but two of them emerged in the analysis of the qualitative interviews. Indeed, turning points in employment trajectories may be expected in non-normative forms of parenting. Sarah had a well-paid, full-time job as a teacher, and was about to found her ideal family with her partner and their child. After some time, she realized that her plan would not work, as her husband was not able to take adequate care of their child due to his emotional instability and alcohol addiction. Sarah decided to quit her job and go back to university to study, as she had always intended. This was a risky decision, as it involved living on a small scholarship and came with no certainty of whether she would succeed in her professional career after obtaining the degree. Sarah's decision was unrelated to the normative idea of being a "good mother", as it is grounded in her will to "follow her dreams" rather than being dissatisfied in a comfortable financial position and a stable and well-paid job. A decision similar to Sarah's may be underpinned for example by conformity to social norms, as in Léa's case. She left a stable but challenging job to go back to university, as the job was incompatible with her small child's care needs. Léa could not keep asking her parents for help with childcare, but did not have reliable access to childcare either. And so she decided to quit her job and care for her child alone. In both stories the change is abrupt and unexpected, as it violates pure economic rationality. Childcare needs may play a role in it, but this is not always the driver of the turning point.

6   Discussion and concluding remarks

This paper adopts a mixed-method approach to study the employment trajectories in the years surrounding the transition to lone parenthood in Switzerland. We used biographical calendars from a representative survey to identify typical employment histories and connect them to individual characteristics and household composition. We combine these results with qualitative interviews conducted with lone mothers to shed light on the rationales behind different employment trajectories.

Some labor market participation pathways followed by mothers before, during, and after the transition to single parenthood are characterized by stability either in employment or in inactivity, some by long-lasting transitions from a low to a higher labor supply. This heterogeneity corresponds to how individuals respond to the challenges which lone parenthood poses to women's roles in the labor market and as caregivers. Our results show that mothers with individual resources that are valued on the labor market (e.g. higher-level education) maintained arrangements that either allowed them to perform the dual role of worker and caregiver, or paid for childcare in the Swiss context of weak welfare support and high childcare costs. The qualitative interviews, however, suggest that even lone mothers with a high education level might still find it difficult to maintain high labor market attachment (or increase/strengthen it), depending on the occupational sector (e.g. arts or cultural management).

Mothers who increased their labor supply from inactivity to part-time, or maintained part-time work are mostly those who had a greater need for income due to the presence of more than one child, but who for the very same reasons could not work full-time. As emerges from the interviews, when mothers are able to combine different types of welfare support, they decide not to increase their labor supply even when they have young children.

More generally, the qualitative interviews not only highlighted how individual characteristics and household composition might represent resources or obstacles for labor supply decisions around lone parenthood, but they also enhanced our understanding of these dynamics with accounts of the partnership and relational histories as well as norms and values relating to parenthood. Almost all lone mothers saw a clear link between their employment pathway and other pre- and post-transition processes such as informal or legal negotiations for child custody and maintenance, or the institutional and informal support they could mobilize. Specifically, the findings clearly call into question the role of the non-resident partner in childcare. When mothers are uncertain about the regularity and length of the father's visits, they find it difficult to organize their own working (and life) schedule to the point that it is difficult for them to negotiate better arrangements with employers or to find a job. Many lone mothers stress the importance of their own role in supporting the father-child relationship despite (or in some cases regardless of) the father's wishes. Such beliefs may give rise to two risks related to their own financial situation and therefore their employment choices. First, mothers are more likely to be vulnerable in the personal relationship with the noncustodial parent at the moment of separation: they might accept unfavorable post-separation maintenance arrangements in

exchange for the noncustodial parent's commitment to child custody. Second, lone mothers could retreat from claiming their rights or avoid complaining about the father's failure to respect the formal agreement and legal obligations. In both cases, even if mothers believe that part-time work would be a more suitable arrangement, they need to increase their labor supply (ideally up to full-time) to make ends meet. If they become unemployed or if work "does not pay", the poverty risk increases; and when work arrangements are at odds with their beliefs, the result may be increased stress, with severe consequences for the mother's mental and physical health.

Our results suggest several potential directions for future research. First, because of the combination of limited unemployment and generous social assistance with poor work-family reconciliation policies in Switzerland, the actual overlap between employment and welfare trajectories needs to be analyzed. However, because of the recruitment strategy for the qualitative sample and very limited information on welfare support in the SHP data, these dimensions could not be fully considered here. As an example, we could not explore the differences across urban/rural areas in the Swiss regions that differ not just in the prevalence of lone parenthood (*SFSO* 2017a) but also in terms of welfare systems: we might expect it to be simpler to face the transition to lone parenthood where this is a more common family form and where public policies are more open to supporting them. The increasing availability of combined administrative and survey data will enable better analysis of these joint dynamics. Second, the role of re-partnering and of living-apart-together relationships for easier organization of everyday life and its implications for opportunities regarding changes in labor market attachment need to be considered more closely. A new stream of research drawing on rich longitudinal data has started to scrutinize the timing of re-partnering and its consequences in different life domains (*Bastin* 2012; *Bastin* 2019; *Langlais et al.* 2016; *Recksiedler/Bernardi* 2019). The longitudinal data we use represent a necessary compromise as they are the first to allow the analysis of the employment trajectories of lone mothers in Switzerland, but it is not possible to account simultaneously for specific relationship dynamics and for retrospective employment trajectories. Finally, our focus on mothers meant we could not incorporate the perspective of non-resident parents on maintenance and care agreements. These elements are identified by lone mothers as crucial when taking decisions on their careers. As a possible extension, researchers could analyze the narratives of non-resident parents to consider how conflicts between ex-partners emerge and are interpreted by both sides. This would allow a greater understanding of the processes shaping mothers' employment but also its spill-over effects on children.

Our findings on the heterogeneity of employment trajectories call for more attention to within-group differences rather than focusing exclusively on the divide between lone mothers and mothers in a couple. By showing the multiplicity of factors shaping lone mothers' decisions on their careers, this work feeds into the debate about the policies for tackling poverty risk among poor lone mothers with low-level labor market attachment (*Brady/Cook* 2015; *Gregg et al.* 2009; *Ellwood* 2000; *Brady* 2019). Several European countries (Switzerland included) have addressed this issue by implementing so called *work-first* policies (or activation policies) which specifi-

cally target lone mothers: these policies imply welfare should be conditional upon labor market participation, based on the assumption that paid work is the primary way out of poverty. These policies rely on highly normative expectations of what constitutes good parenting and often ignore the fact that single mothers cannot be treated merely as a work-force waiting for activation: indeed, the empirical evidence on the effectiveness of such measures is inconclusive (*Blau et al.* 2004; *Daly* 2011; *Doiron* 2004; *Hennessy* 2005; *Millar* 2019; *Millar/Ridge* 2009).

Therefore, this work reinforces the findings of existing literature in urging consideration of at least two points. First, simply compelling these mothers to increase their labor supply in exchange for social support is often at odds with their possibilities to do so. Specifically, by ignoring issues such as the commitment of the non-custodial parent towards the children, these policies may not distinguish between different situations and thus lead to inequalities. If a mother receives regular support from the non-custodial parent, she will be able to increase her participation in the labor market to improve her household's financial situation. When this is not the case, increasing the labor market supply may simply not be feasible, even if social benefits are provided to incentivize it. If the lone mother does not receive or cannot claim maintenance support, she may not be able to afford work-related expenses, including childcare. In turn, without external care support, she may have less time to devote to paid work, especially if she is socially isolated. In our qualitative sample, it is rare for fathers to be both highly involved in childcare and also remit maintenance payments. Of course, the presence of at least one of these forms of support can be understood as necessary for giving lone mothers more leverage in combining work and care. However, this is never sufficient in itself as a means to actually improve employment prospects: in the few cases of fathers' involvement, lone mothers also benefited from other forms of support that complemented those provided by the non-custodial father. Likewise, the lack of formal and informal support with childcare may prevent such mothers from increasing their time in paid work irrespective of the normative emphasis placed by work-first policies on personal autonomy and financial independence through paid work.

In this respect, the mixed-method design is particularly useful for uncovering the relationship between the meanings associated with care, work, and formal/informal support for women who come from different backgrounds and who experience lone parenthood at different life-course stages. Such meanings constitute a hierarchy of priorities which shape their employment decisions. This is crucial for understanding the implications of non-normative family transitions and their effects on trajectories in other life domains.

Acknowledgements

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Prof. Dr. Emanuela Struffolino (✉). Freie Universität Berlin and WZB Berlin Social Science Center. Berlin, Germany. E-mail: e.struffolino@fu-berlin.de
URL: https://emanuela-struffolino.com/

Prof. Dr. Laura Bernardi. University of Lausanne and NCCR LIVES. Lausanne, Switzerland. E-mail: laura.bernardi@unil.ch
URL: https://lives-nccr.ch/en/personne/laura-bernardi-n148

Ornella Larenza. SUPSI – Scuola universitaria professionale della Svizzera italiana. Manno, Switzerland. E-mail: ornella.larenza@supsi.ch
URL: https://www.supsi.ch/deass/strumenti/rubrica/dettaglio.27289.backLink.f69827e6-fd97-4aaf-b8fb-a5ca55783a36.html

Appendix

Tab. A1: Multinomial logistic regression models predicting the assigment to the five clusters. Exponentiated coefficients and Z-scores in parentheses

| | Full-timers vs.: | | | |
	Out of employment	Returners	Part-timers	Strengtheners
Age upon becoming lone parent (ref. 18-24)				
25-30	1.584	2.383	1.732	1.657
	(0.98)	(1.12)	(0.81)	(0.69)
31-40	0.569	1.429	1.552	0.745
	(-1.01)	(0.45)	(0.62)	(-0.38)
41-54	0.860	1.855	0.863	0.361
	(-0.21)	(0.64)	(-0.18)	(-1.08)
Education (ref. Lower secondary)				
Upper secondary	0.817	2.438*	0.763	1.542
	(-0.51)	(2.32)	(-0.74)	(0.98)
Tertiary	0.662	0.969	1.765	1.065
	(-0.77)	(-0.04)	(1.13)	(0.10)
Age of the younger child upon becoming lone parent (ref 0-2)				
3-5	0.323*	1.517	0.567	0.463
	(-2.19)	(0.85)	(-1.32)	(-1.22)
6-10	1.355	1.872	2.197	6.634**
	(0.56)	(1.12)	(1.66)	(2.97)
11+	0.443	0.599	1.639	2.312
	(-1.25)	(-0.70)	(0.85)	(1.10)
Number of children upon becoming lone parent (ref. 1)				
2	1.688	3.081*	1.19	0.947
	(1.05)	(2.28)	(0.45)	(-0.11)
3+	3.172*	4.291*	0.867	1.465
	(2.17)	(2.36)	(0.29)	(0.61)
Mode of entry into lone parenthood (ref. lone parent at first birth)				
Separation	0.614	0.463	0.339**	0.460
	(-1.14)	(-1.57)	(-2.58)	(-1.29)
Widowhood	3.829	1.699	1.584	1.019
	(1.79)	(0.66)	(0.64)	(0.02)
Nationality at birth (ref. Swiss)				
Other	1.056	0.223*	0.432	0.662
	(0.13)	(-2.12)	(-1.73)	(-0.76)
Year upon becoming lone parent (ref. up to 1979)				
1980-1989	0.582	1.248	1.501	1.247
	(-1.34)	(0.43)	(0.91)	(0.41)
1990-1995	1.024	1.285	1.793	3.080
	(0.05)	(0.39)	(1.18)	(1.93)
1996-2005	0.817	2.451	7.980***	5.435**
	(-0.38)	(1.60)	(4.47)	(3.11)
Wave (ref. 2001)				
2013	0.477	0.628	1.923	1.158
	(-1.73)	(-0.96)	(1.45)	(0.26)
N	478	478	478	478

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

Source: Authors' calculations. SHP data, biographical calendar 2001 and 2013 (weighted).

Fig. A1: Average silhouette width (weighted and not – ASWw and ASW respectively), Hubert's C coefficient (HC) and point biserial correlation (PBC) by cluster solution: Standardized scores (Z-scores) and original values
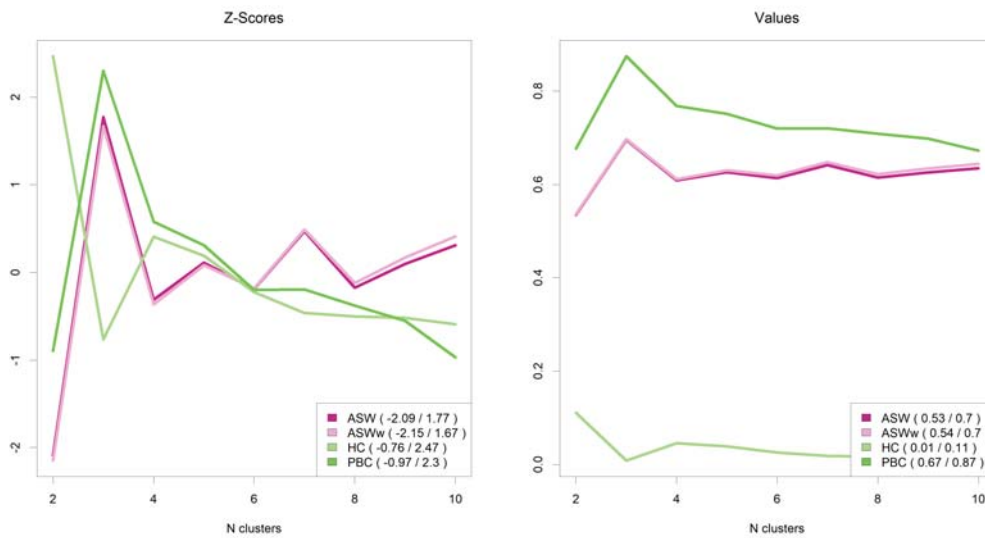

Note: The silhouette coefficient compares the average distance of a case to the cases in its cluster with the average distance to the cases in the closest cluster. Therefore, such an index allows the identification of sequences that lie between clusters. The ASW averages the distances of all sequences in a cluster. The higher the ASW value, the higher the within-cluster "closeness" between the sequences (the ASWw is the same as the ASW, but using sampling weights). The other two criteria assess the dissimilarity between the sequences allocated to the same cluster using different methods: the PBC behaves like the ASW, while the lower the HC, the greater the closeness between sequences in a cluster. All four criteria indicate 3 clusters as the best solution, and 5 as the second best. We opted for the latter as it allowed us to extract clusters 2 and 4, which are substantively relevant as they identify long term transitions between states around lone parenthood that resonate with the experiences of mothers in the qualitative sample.

Source: Authors' calculations. SHP data, biographical calendar 2001 and 2013. N=478.

Fig. A2:   Silhouette values for each sequence by cluster for the 5-clusters solution
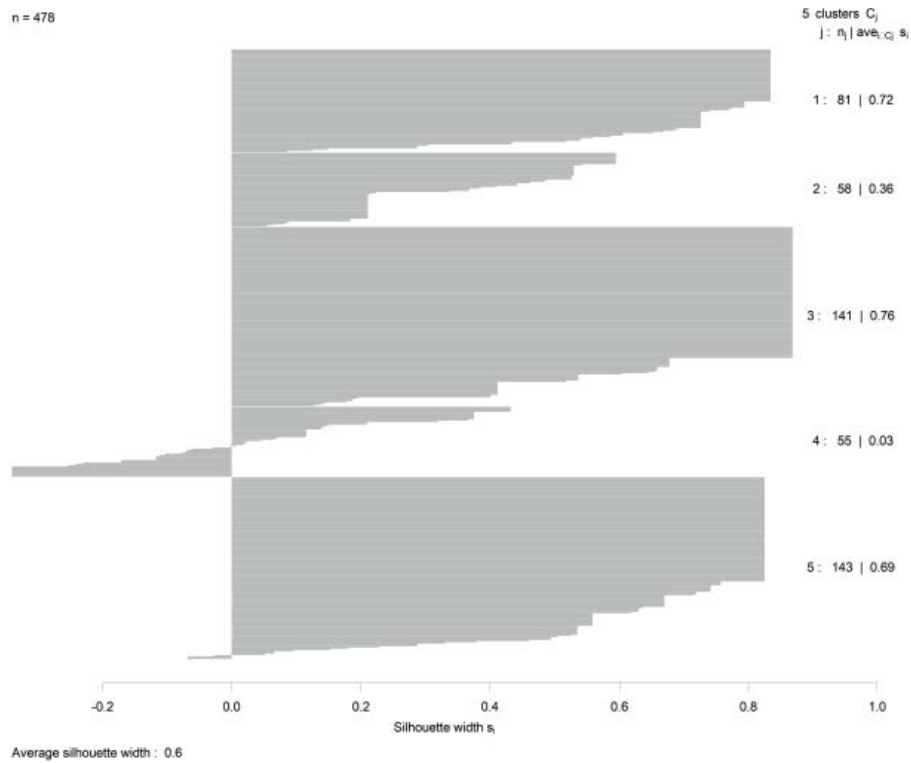
Note: The silhouette value for each sequence is commonly used to assess how distant in a Euclidian space sequences are from other sequences in the cluster. The PAM algorithm we used allocate the sequence to their closest medoid (the most central sequence to the most populated areas of the sequences distribution): therefore, even if a sequence seems very different to those in its cluster, it is nevertheless more similar to them compared to the others in other clusters. Although the ASW for cluster 4 seems suboptimal, as more than 50 percent of the sequences are located on the left-hand side of the 0, this does not mean that they would have been better allocated to other clusters, but that the within cluster heterogeneity is higher for that cluster compared to the others. From a visual inspection of Figure 1 in fact, the sequences in cluster 4 that diverge from the general pattern of "strengthen the labor market attachment" and are actually "reducers": 6 women moved from full-time to part-time work and 7 from part-time to out of the labor force. The time spent in these states lead to the allocation of these sequences to this cluster, although how they unfold over time has a different substantive meaning. The other sequences share long periods in part-time work followed by full-time, in some cases followed by time out of the labor force. We now include a word of caution, where relevant, in the presentation of the results.

Source: Authors' calculations. SHP data, biographical calendar 2001 and 2013.

Fig. A3: Dissimilarities to the medoid within each frequency group as a box-and-whisker plot by cluster
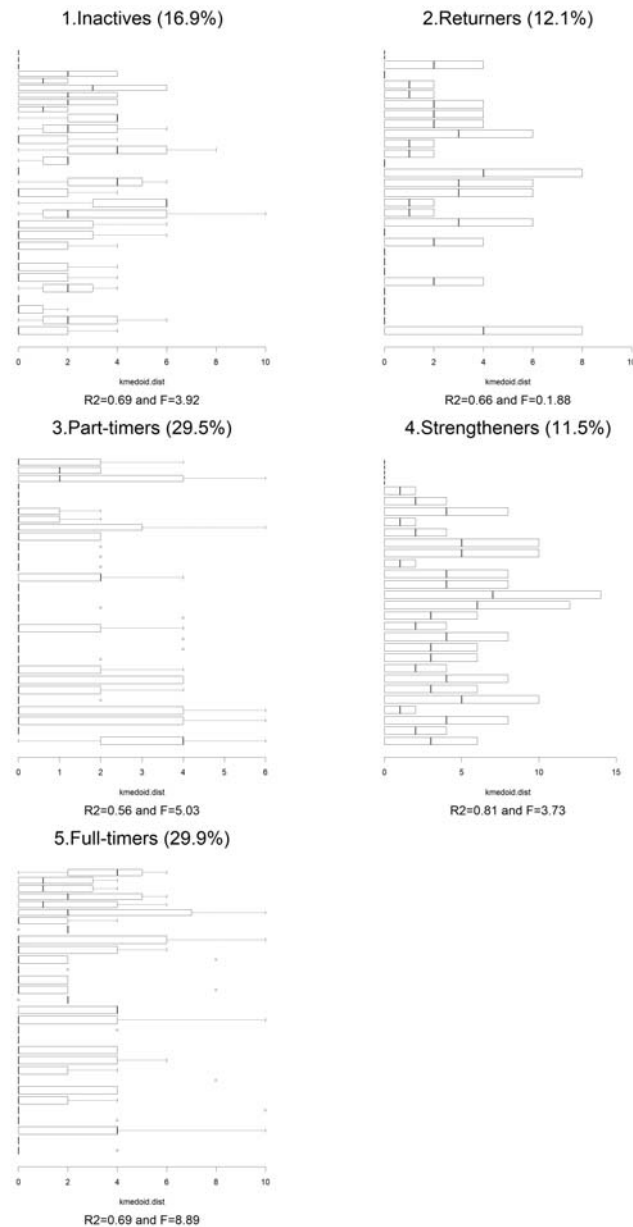
Note: Y-axis reports the box-and-whisker plot for dissimilarities to the medoid within each frequency group; X-axis displays distance from the medoid selected as the most suitable representative sequence of each frequency group. R2 and F statistics for the goodness of fit are displayed below each plot (*Fasang/Liao* 2014).

Source: Authors' calculations. SHP data, biographical calendar 2001 and 2013.