



Diverse and Changing Family Structure During Early Childhood

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QLSCD 1998-2010 in brief

This fascicle is based on data from the Québec Longitudinal Study of Child Development (QLSCD 1998-2010) which is being conducted by the Institut de la statistique du Québec (Québec Institute of Statistics) in collaboration with various partners (listed on the back cover). The goal of this study is to gain a better understanding of the trajectories which, during early childhood, lead to children's success or failure in the education system.

The target population of the QLSCD comprises children (singleton births) born to mothers residing in Québec in 1997-1998, with the exception of those whose mother, at the time of the child's birth, was living in certain administrative regions of the province (Nord-du-Québec, Terres-Cries-de-la-Baies-James and Nunavik) or on Indian reserves. Certain children were also excluded because of constraints related to the sample frame or major health problems. The initial sample eligible for longitudinal monitoring comprised 2,120 children. The children were followed annually from the age of 5 months to 8 years, and since then have been followed biannually to the age of 12. During the 2002 round, the data collection period was changed in order to visit all the children in the spring, namely during exam time in the education system. It should be noted that the QLSCD is the first large-scale study based on a sample of such magnitude, representative of Québec newborns, who are being monitored in such an intensive manner throughout childhood.

The QLSCD employs a variety of data collection instruments to gather data on the child, the person most knowledgeable about the child (PMK), her or his spouse/partner (if applicable), and the biological parent(s) not residing in the household (if applicable). During each data collection round, the child is asked to participate in a variety of activities designed to assess development. As of the 2004 round, the child's teacher is also being asked to respond to a questionnaire covering various aspects of the child's development and adjustment to school.

Further information on the methodology of the survey and the sources of data can be accessed on the website of the QLSCD (also known as "I Am, I'll Be"), at: www.iamillbe.stat.gouv.qc.ca.



The context in which children are born and grow up in Québec has considerably changed during the past 30 years. Couple instability now comprises one of the main changes children are experiencing in their family environment. This has led to increasing diversity and complexity in family trajectories during childhood and adolescence. As a result, following the dissolution of their parents' union, many children experience the addition to their family network of half- or step-brothers or half- or step-sisters (the latter with whom they have no biological or adoptive relationship) (Juby, Marcil-Gratton and Le Bourdais, 2005).

In recent decades, considerable research has focused on the impact of family changes on children's social adjustment and well-being. Many studies have indicated, for example, that children whose parents have separated or divorced have a higher risk of maladjustment or physical health problems (Amato, 2001, 2000; Cheal, 1996; Dawson, 1991; Fomby and Cherlin, 2007; Hetherington and Clingempeel, 1992; Lipman et al., 2002; Lipman, Offord and Dooley, 1996). Other studies have suggested that the children of divorced parents present lower academic performance and have a higher rate of school drop-out (Strohschein, Roos and Brownell, 2009; for a review of the literature, see St-Jacques and Drapeau, 2008). Some research suggests that young children are more affected than older ones by a parental break-up (Heard, 2007; Strohschein, Roos and Brownell, 2009). Not only are they less able to understand what is happening, but they may also have a smaller social network upon which they can rely for support during such circumstances (e.g. teachers, friends).

Although it is acknowledged that parental separation and divorce can have negative effects on child development, at least during the short term, it is also being increasingly recognized that understanding the context of the dissolution of the union is important in order to assess its impact on the children (Stanley and Fincham, 2002). Indeed, the mechanisms at play are complex. Adjustment problems in children of separated and divorced parents may in part be due to parents' antecedent behaviours and attributes (Fomby and Cherlin, 2007). They may be due to pre-existing family conflict (Amato and Booth, 1997; Ambert, 1997) or to conflict at the time of the separation (Harper and Fine, 2006). Child maladjustment can also be due to the stress resulting from the re-organization of family life (changing neighbourhoods or schools, lower income, arrival of a new partner) (Kiernan, 1997) or to the level of engagement of the non-resident parent (Bernardini and Jenkins, 2002), etc.

Various studies conducted in recent years on data from longitudinal surveys have shed light on the importance of taking into account all the family transitions that children have been experiencing if we want to gain a better understanding of the impact of separation and divorce on the development of children. Though parental separation and divorce in itself is not always associated with unfavourable outcomes, repetitive family transitions may constitute an accumulation of stress factors likely to affect children's socioemotional development. For example, some researchers have drawn attention to a marked cumulative effect of transitions resulting in externalized behavioural problems (Fomby and Cherlin, 2007). Other researchers have observed a differential impact of family transitions experienced in early childhood on behaviours observed later in elementary school (Cavanagh and Huston, 2008).

Beyond children being exposed to family instability, there are those who live in a united but dysfunctional family or one in which serious inter-parent conflict is likely to compromise their development. Among such children, the parents' break-up could have a positive effect on certain aspects of their development (Strohschein, 2005). In short, it seems increasingly relevant to locate the separation of the parents in a process that may long precede the event and which continues after the dissolution of the union. The outcome for the child will depend on his/her experiences at various stages during his/her family trajectory (Amato, 2000; Kelly and Emery, 2003; Strohschein, 2005).

The Québec Longitudinal Study of Child Development (see the box entitled "QLSCD 1998-2010 in brief") provides a wealth of data which can contribute to gaining a better

understanding of the role of the family environment in children's social and academic adjustment. However, it is important first to clearly document the life course of families and certain aspects of the family life of the children at a particularly important stage in their lives, namely before they enter school.

Therefore this fascicle, essentially descriptive, has three goals: 1. Illustrate the diversity of family trajectories experienced by children during the preschool years in light of changes in the parents' conjugal situation; 2. Document the atmosphere of parental relations, whether or not the children live with both parents in the same household; 3. In cases where the parents do not live together, describe certain attributes of family life, notably living arrangements and the father's parenting and financial involvement in the life of the child (see Box 1).

Box 1

Data sources

The data presented in this fascicle are based on a sample of approximately 1,500 children followed from birth to 6 years of age in the Québec Longitudinal Study of Child Development (QLSCD 1998-2010). Most of the data come from responses to the Computerized Questionnaire Completed by the Interviewer (CQCI). To collect data on the children, questions were asked of the Person Most Knowledgeable (PMK) about the child, in almost all cases the biological mother. The CQCI has a detailed section providing a means of documenting events in the couple and parental lives of the two parents, not only from the birth of the child, but also prior to this. With regards to children whose parents have separated or divorced, data was also collected on the living arrangements or custody and contact with the other biological parent.

Certain data on the couple's relationship or separated parents, such as satisfaction with the financial contribution and involvement of the other parent or the atmosphere of parental relations, were also collected using self-administered paper questionnaires during various annual rounds of the QLSCD. These data provide a much more comprehensive portrait of the family environment in which the children are growing up than observed in traditional surveys that focus only on the household being studied.

It should be noted that the data presented here are based on a cohort of children born in Québec at the end of the 1990s, and therefore children who arrived in the province after their birth, namely 6% of children who were 6 years of age in 2004, were excluded from the study.

The diversity of family configurations among children 6 years of age²

Previous research based on QLSCD data have shown that the children in this cohort were born into a diversity of family contexts: 14% come from a two-parent family in which at least one of the parents already had children from previous unions, while 8% were born into a single-parent family. Among children born into a two-parent family, slightly more than half (52%) were born into a common-law union (Marcil-Gratton and Juby, 2000). Further research revealed the diversity of family trajectories experienced by the children even before the age of 3 years (Desrosiers et al., 2002). The question we address here is, what were the children experiencing a few years later in 2004 when they were finishing kindergarten?

Figure 1 presents an overview of the family situation of the children at 6 years of age from the perspective of the household surveyed, namely without taking into

account the “other” household in which many children of separated parents may live according to varying living or custody arrangements.

As Figure 1 shows, nearly 70% of children were living with their two biological parents in an intact family, namely one only comprising children of these parents, while 6% were living with their two biological parents and half-brothers or half-sisters born of a previous union of one of the parents, most often the mother (see Box 2 and Figure 1). Approximately 8% were living with one of their parents and a spouse/partner who was not a biological parent. Slightly over 17% of the children were living with a single parent, who in nearly all cases (96%) was their biological mother.

From the perspective of the type of union of parents, it seems that the “traditional” or “classical” family is not the one in which the majority of Québec children find themselves, since 45% of children born in the province who were 6 years of age in 2004 were living in a household composed of a married couple and only their own children born of this union (or adopted) (data not shown).



Box 2

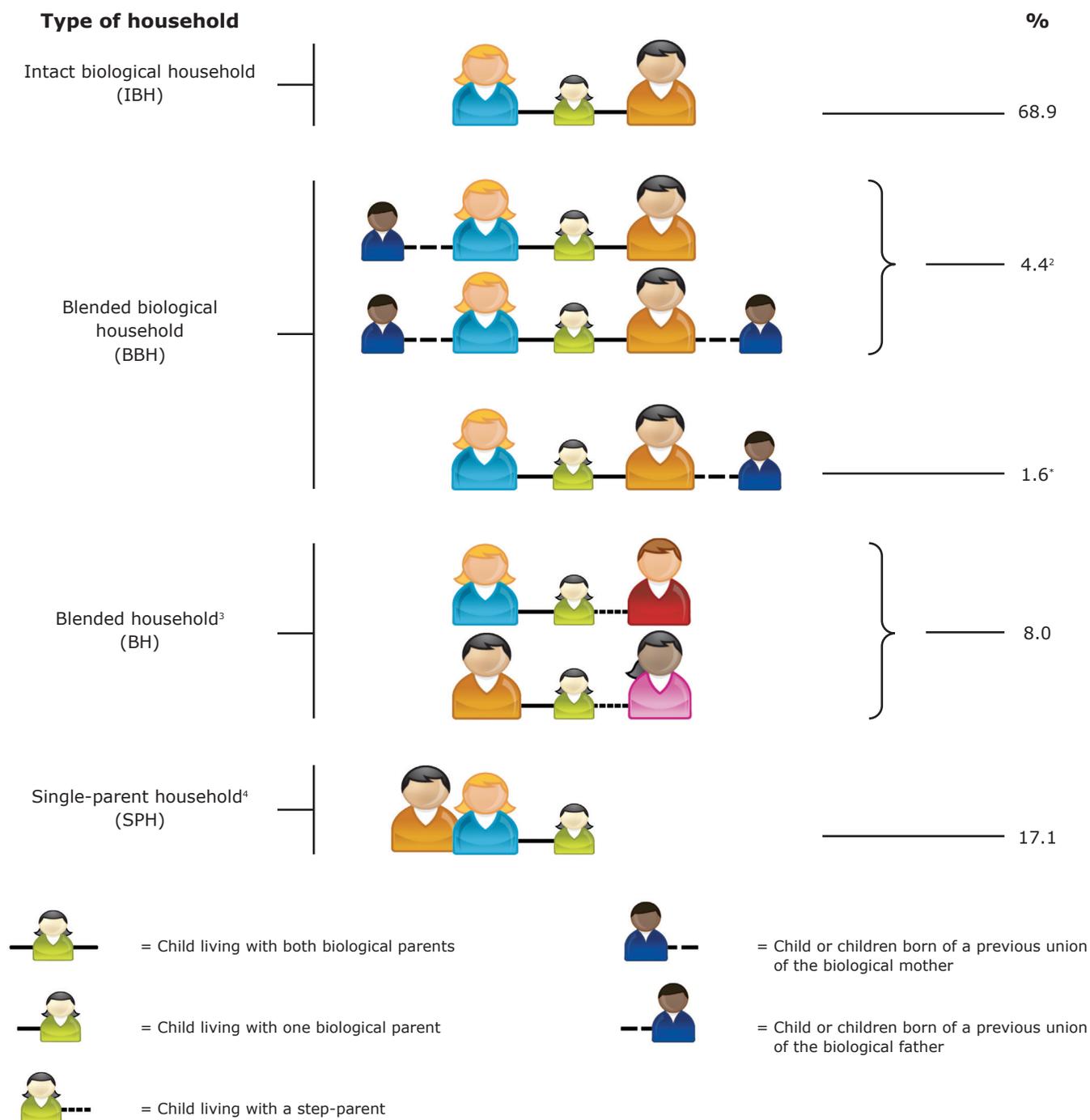
Typology of households at the time of the survey round

The typology presented in Figure 1 is essential based on the residential environment of the child at the time of the survey. The issue here is the links that unite the target child with: 1) the adults in the household who are responsible for him or her (including the new spouse/partner of the biological parent), and 2) the other children usually living in the same household as him/her. Therefore we were interested in learning the nature of the immediate family in the household in which the child was living, irrespective of whether there was another family unit in the same household or that relatives such as grandparents or aunts or unrelated people such as a roomer was living there.

For the purposes of Figure 1, the children were categorized as living in four types of households:

1. **Intact biological households** comprise children living with their biological or adoptive parents in the household being surveyed.
2. **Blended biological households** comprise both biological parents of the child and at least one child born of a previous union of one of the parents.
3. **Blended households** comprise one biological parent living with a spouse/partner who has no biological link to the child. The partner may or may not have children from a previous union who are living in the household.
4. **Single-parent households** comprise children living with a sole parent.

Figure 1
Distribution of 6-year-old children by type of household at the time of the survey,¹ Québec, 2004



1. This typology only describes the type of household in which the child was living at the time of the survey. The household could have included other people related to the child or not. Excluded from this typology were a few children who were not living with either biological parent.
 2. Due to their very small numbers, households including children of a previous union of the mother and father were grouped with those including children of a previous union of only the mother.
 3. In virtually all cases, the child was living with a stepfather. Note that the household could have included children from a previous union of the step-parent or not.
 4. In virtually all cases (96%), the single parent in the household was the mother.

* Coefficient of variation between 15% and 25%; interpret with caution.

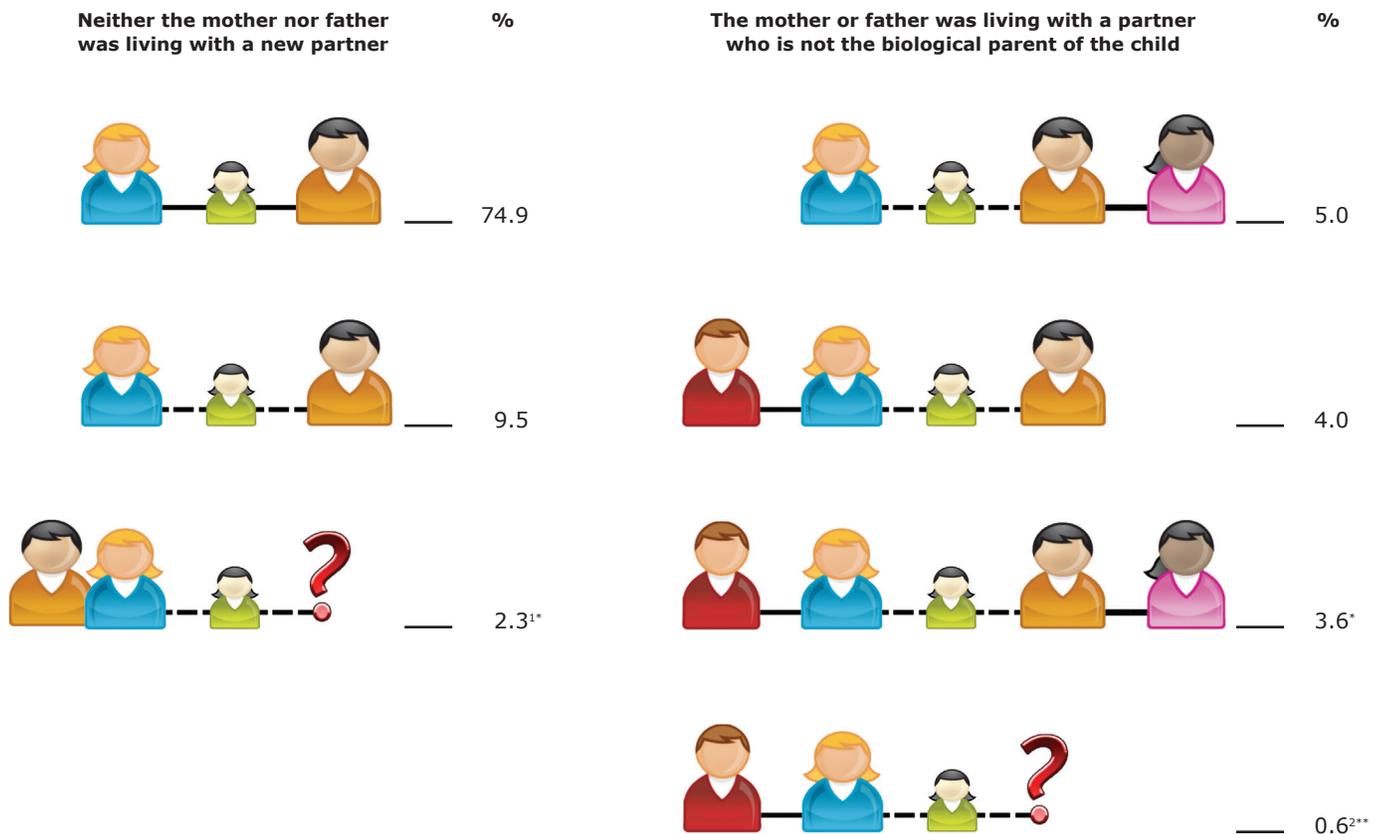
Source: Institut de la statistique du Québec, *QLSCD 1998-2010*.

THE "PARENTAL" NETWORK – PARENTS AND THEIR PARTNERS

Since approximately a quarter of 6-year-old children were not living with both of their biological parents, it follows that just as many children were likely to belong to two "families," namely the one with a biological parent in the household surveyed and the other with their second parent in another household. One or the other of these parents could have themselves formed a single-parent or blended family. As a result, the child could be circulating between the mother's household and the father's one, according to a variable schedule (see further in the text). Therefore, in the case

of children not living with both their biological parents, the family network may have not only included the non-resident biological parent, but also a new spouse/partner likely acting as a parental figure. Figure 2 presents the potential family network of the target child, namely without reference to the living/custody arrangements, or the contact the child has with the non-resident parent. As we can see, when they were in kindergarten, 13% (5.0% + 4.0% + 3.6% + 0.6%) of children had possible contact with a step-parent (in the household surveyed or that of the other parent).

Figure 2
**Distribution of 6-year-old children by their potential parental network
 (irrespective of living arrangements or custody), Québec, 2004**



Note: An intact line means the parents were living together, whereas a dotted line means they were separated or divorced.

- 1. The child was living with his mother or father, but the situation of the other biological parent is unknown.
- 2. The child was living with a biological parent and a step-parent, but the situation of the other biological parent is unknown.

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation higher than 25%; imprecise estimate for information purposes only.

Source: Institut de la statistique du Québec, QLSCD 1998-2010.

In addition, a parent could have a non-cohabiting partner. Indeed, among children 6 years of age living in a single-parent household (17% of all children), 20% had a mother who reported having a spouse/partner (not the biological father of the child) who did not reside in the household (data not shown).

BROTHERS AND SISTERS LIVING ELSEWHERE

What about siblings? What proportion of children had half- or step-brothers/sisters living elsewhere, but likely part of their family network?

QLSCD data reveal that 7% of children 6 years of age had siblings (half or step) who were not usually residing in the household surveyed. This proportion was 18% in the case of children living with a step-parent, and 5% for children living with both of their biological parents in a household where all the resident children were born of this couple. Most often the children residing elsewhere were the biological offspring of the father or new partner of the mother (data not shown).

Although the data do not allow for details on the relations that the child had with these siblings, they do indicate that the family network of young children can be much more complex than would be indicated by data based only on the survey household (Lapierre-Adamcyk, Le Bourdais and Martin, 2009).

Diversity of family trajectories

The aforementioned data provide only a snapshot of the family situation of the children at the time of the survey round. By treating the types of families as a homogeneous category, we cannot perceive the diversity of life paths that led to these family situations. Yet various studies conducted on longitudinal data have highlighted the importance of taking into account all the family transitions the children have experienced, this in order to gain a better understanding of the associations between the type of family in which they are living and various aspects of their development. For example, it has already been shown that children having experienced at least one family transition related to their parents' conjugal history are more likely to present behavioural problems at the age of 5 or 6 years (Najman et al., 1997). Furthermore, children born into a single-parent household are more negatively affected by family instability than those born into a two-parent family (Cavanagh and Huston, 2006). In this vein, other researchers have revealed that children who have lived through multiple transitions are more likely to see

their development compromised than those having grown up in a stable two-parent family, and even more than those who have grown up in a stable single-parent family (Acock and Demo, 1994; Fomby and Cherlin, 2007). These findings reinforce the idea that we need to increase our knowledge of the various family trajectories that children are experiencing (Cavanagh and Huston, 2006; Joshi et al., 1998; Marcil-Gratton et al., 2003).

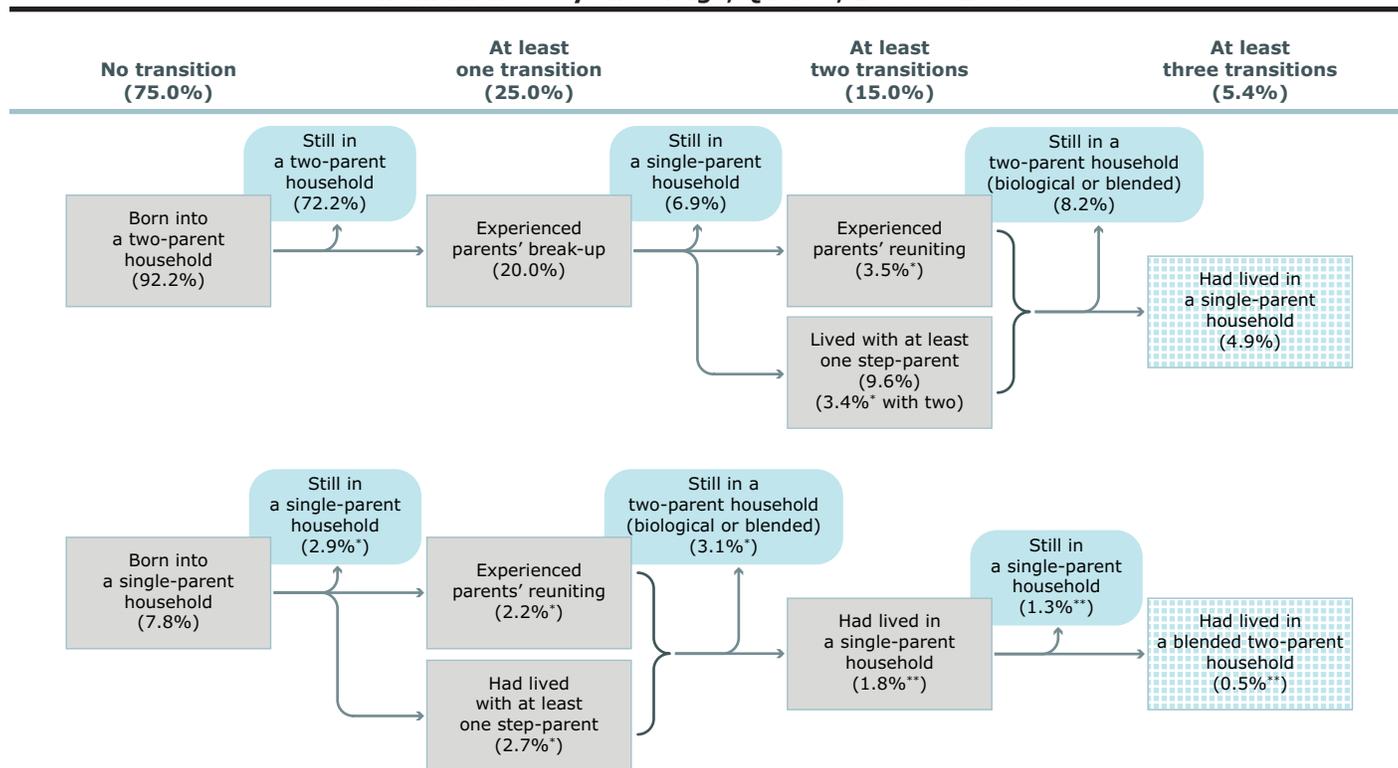
Figure 3 presents an overview of the family transitions to which the children had been exposed between their birth and 6 years of age because of the union or break-up of their biological parents. Contrary to more traditional surveys, the data take into account not only the couple situation of the parent residing in the survey household, but also that of the other parent in the case of children who split their time living in two households. Therefore, in this analysis, the child is considered to be living with a step-parent (in a blended family) from the time when one or the other parent began living with a new spouse/partner and that the child had been living in this household at least part of the time. Only family transitions related to the couple paths of the parents are documented here. For example, for children living with both their biological parents, it is not specified whether the household includes children from previous unions.

As shown in Figure 3, 75% of children 6 years of age had not experienced any family transition related to the union or break-up of the parents; 72% had always lived with their two biological parents in the same household, whereas slightly less than 3% had continuously lived in a single-parent household (in one or two single-parent households). Therefore this indicates that approximately one quarter of children born in Québec at the end of the 1990s experienced at least one transition related to a change in the couple status of the parents before kindergarten.



Figure 3

Family transitions experienced by the child due to the formation or dissolution of the parents' union(s), from birth to 6 years of age, Québec, 1998 to 2004^{1,2}



1. The definition here of a two-parent family is that the child was born into a household with both their biological parents. We then differentiate two-parent families by whether the child was living with his/her two biological parents (biological household) or with a step-parent (blended household).
 2. The checkered rectangles on the right indicate that the family trajectory could have continued on, but is not shown because of the small numbers involved.
- * Coefficient of variation between 15% and 25%; interpret with caution.
 ** Coefficient of variation higher than 25%; imprecise estimate for information purposes only.
 Source: Institut de la statistique du Québec, QLSCD 1998-2010.

Table 1

Proportion of children having experienced certain family transitions associated with the formation or dissolution of the parents' union, between birth and 6 years of age, Québec, 1998 to 2004¹

	Type of household at birth		
	Two-parent (IBH or BBH)	Single-parent (SPH)	All households
	%		
No transition	78.3	36.7*	75.0
One transition	7.5	40.2*	10.0
Two transitions	8.9	16.8**	9.5
At least three transitions	5.3	6.3**	5.4
At least one episode of single-parenthood	21.7	100.0	27.9
At least two episodes of single-parenthood	5.3	23.1*	6.7
At least one episode of a blended family (cohabiting with a step-parent)	11.1	40.9*	13.4
Biological parents reunite	3.9*	28.8*	5.8

1. Not all of these percentages could be calculated directly from the data shown in Figure 3. First, they were based on the real number of children having experienced the various trajectories rather than the rounded percentages shown in Figure 3. The percentages here also take into account children who had experienced more complex trajectories (checkered rectangles on the right in Figure 3).
- * Coefficient of variation between 15% and 25%; interpret with caution.
 ** Coefficient of variation higher than 25%; imprecise estimate for information purposes only.
 Source: Institut de la statistique du Québec, QLSCD 1998-2010.

More specifically, we observe that at the age of 6 years, approximately 10% of children had lived with a step-parent after having experienced the separation or divorce of their parents. Other trajectories were rarer: 2.2% had been born to a single mother and had seen their father join the family household after their birth, while 3.5% had experienced the separation then the reuniting of their biological parents. Children born into a single-parent household were more likely to have experienced at least one family transition (63%), while the proportion for children born into a two-parent household was only 22% (see Table 1).

Approximately one-quarter of children born in Québec at the end of the 1990s had experienced at least one family transition related to their parents' conjugal history by the time they entered Grade 1 of elementary school. Among children born into a single-parent household, 63% had experienced at least one transition because of a change in the couple situation of their parents, while this was the case for 22% born into an intact two-parent family.

These results show that the family paths 6-year-old children have been experiencing prove to be relatively diversified. Comparing the data in Figure 1 that only show the household situation when the child was about 6 years of age and those of Figure 3 and Table 1 that take into account changes in the parental network since the birth, we see that though 17% of 6-year-old children were living with a sole parent at the time of the survey, 28% had already experienced such a situation at one time or another, most often following the separation or divorce of the biological parents. Furthermore, though 8% of 6-year-old children were living with a parent and a step-parent, 13% had already experienced this situation. A cumulative calculation indicates that approximately 5% of children in kindergarten had already lived through at least three changes in their family life related to the couple history of their parents.

The multiplicity of changes to which certain children are exposed bear witness to the rapidity with which the unions of their parents form and dissolve. For example, half of the children who had lived with a step-parent had experienced such a transition in the year following their birth (for those born outside of the union) or the separation/divorce of their parents (data not shown). Proportionally more children whose parents were not living together would experience, for the first time, life with a step-parent in their mother's household compared to their father's household (60% vs. 40%). The duration of the single-parent episode prior to this was, however, longer for mothers compared to fathers. For half of 6-year-old children, the duration of single-parenthood for their mother was 16 months or less after the break-up (meaning the child had a new step-

father after this period). For fathers, the median duration of single-parenthood prior to forming a new union was 7 months (meaning the child had a new step-mother after this period). These findings express the combined effect of two factors: the fact that the young children were most often living with their mother at the time of the separation or divorce (as we will later see), and the tendency of separated fathers to form a new union faster following the dissolution of the union.

Beyond the composition of the family or the type or number of transitions experienced (Fomby and Cherlin, 2007; St-Jacques et al., 2005), it is important to assess the quality of the relationship between the parents (current or ex-partners) to gain a better understanding of the effects family changes have on the development and well-being of children. It is from this perspective that it is productive to know the context related to the parents' separation. But first, what happens to children who have grown up in a so-called intact family? Does the relationship between the parents necessarily resemble the long peaceful flow of a river? And to what degree does the level of understanding or agreement on major issues between the partners in the years following the birth of a child provide clues to a possible break-up of the family?

Parents are together, but are they happy?

Many studies have demonstrated that the birth of a child represents a critical transition in the life of a couple. It often leads to a rather stereotypical distribution of sex roles which can foster dissatisfaction and a deterioration of intimacy in the years following the birth (Ahlborg, Misvaer and Möller, 2009; Belsky, Lang and Rovine, 1985; Lawrence et al., 2008; White, Booth and Edwards, 1986), irrespective of the birth order of the child (O'Brien and Peyton, 2002). Dissatisfaction in the couple, if it persists, does not only affect the parents' well-being but children's as well (Hawkins and Booth, 2005). In Québec and in Canada as a whole, longitudinal studies have revealed positive associations between the degree of couple satisfaction in mothers and their feeling of being an effective parent (Pierce, 2004) and positive parenting practices (Strohschein, 2007). Other studies have shown that children whose parents are experiencing marital dissatisfaction are more likely to experience mental health problems (Fishman and Meyers, 2000) or see their parents divorce (Devine and Forehand, 1997).

Box 3

Measuring couple satisfaction in the QLSCD

The 8-item Dyadic Adjustment Scale (DAS-8) used in the QLSCD is an abridged version of the original 32-item scale (Spanier, 1976). It provides a means of better identifying couples at high-risk of presenting a clinically significant level of couple distress (Bégin et al., 2002). The maximum score on the scale is 41, and similar to the original DAS, the higher the score the more the person is satisfied with their relationship. The 8 items on the abridged DAS and the choice of responses for each item are presented in Table 2.³

Based on data of the 2000 round of the QLSCD, a series of analyses were conducted to verify the psychometric properties of the DAS-8 (Bégin et al., 2002). Although certain researchers suggest that measurements of the conflict between parents may be more predictive of the long-term adjustment of children than general measurements of the parents' satisfaction as a couple (for a review of the literature, see Bernardini and Jenkins, 2002; Finchman and Bradbury, 1987), it appears that the couple satisfaction of the parents when the children were 6 years of age (i.e. in kindergarten) was strongly associated with the family dysfunction scale also used in the QLSCD, which measures discord and the existence of negative feelings in the family (data not shown).⁴

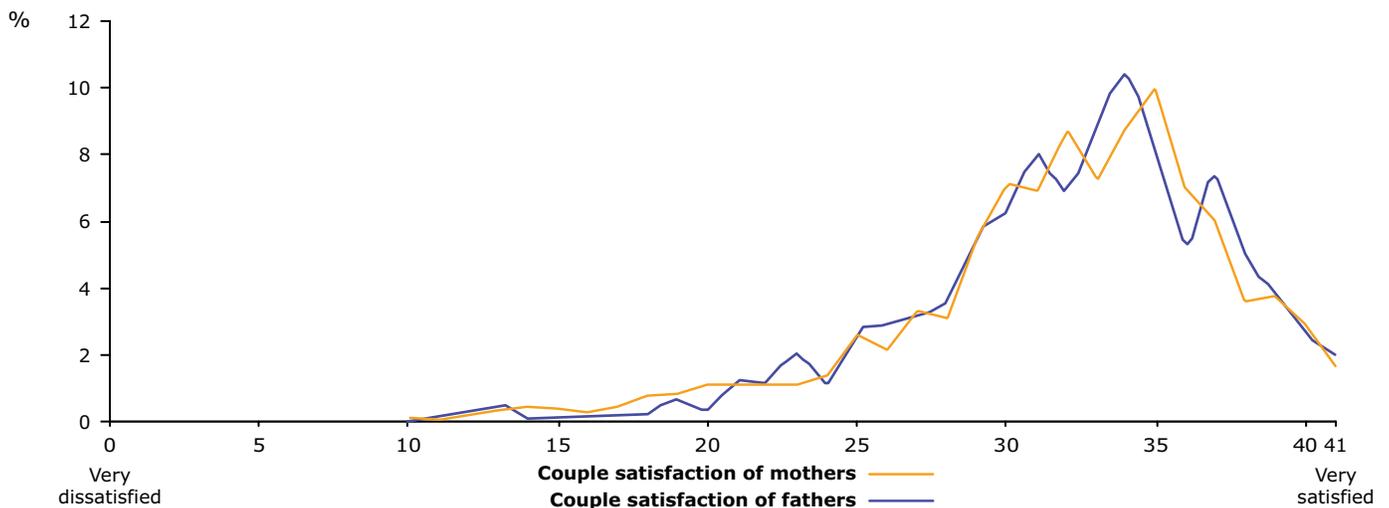
ASSESSING THE COUPLE'S RELATIONSHIP – BETWEEN ENCHANTMENT AND DISTRESS

In the QLSCD, the parents' degree of satisfaction as a couple was measured for the first time when the child was approximately 2½ years of age, then annually up to the age of 6, using an abbreviated version of the Dyadic Adjustment Scale (DAS) (Spanier, 1976; translation of the French version by Baillargeon, Dubois and Marineau, 1986; see Box 3). Figure 4 presents an overview of the distribution of mothers' and fathers' scores on the couple satisfaction scale when the target children were in kindergarten. It should be noted that some of the analyses that follow are on the developmental course of

couple satisfaction. Hence, we are interested here in the parents who had continuously cohabited since the birth of the child, with 72% of the target children of the QLSCD having lived in this family structure (see Figure 3).

As seen in Figure 4, the concentration of the distribution towards the right side of the graph indicates that a majority of parents reported they were rather satisfied with their relationship as a couple. The mean for the mothers was 31.8 (standard error = 0.21), whereas it was 32.2 for the fathers (standard error = 0.19). The couple satisfaction levels of mothers and fathers were strongly associated, with a coefficient of correlation of 0.64 ($p < 0.001$).

Figure 4
Distribution of parents¹ by their reported level of couple satisfaction when the child was 6 years of age, Québec, 2004



1. Biological parents having lived together since the birth of the child.
Source: Institut de la statistique du Québec, QLSCD 1998-2010.

Table 2
Items on the abridged Dyadic Adjustment Scale (DAS-8), Québec, 2000 to 2004

1. Do you and your spouse/partner agree or disagree on demonstrations of affection?	<i>Always agree</i>	<i>Almost always agree</i>	<i>Occasionally agree</i>	<i>Frequently disagree</i>	<i>Almost always disagree</i>	<i>Always disagree</i>
2. Do you discuss or have you considered divorce, separation, or terminating your relationship?	<i>All the time</i>	<i>Most of the time</i>	<i>More often than not</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
3. In general, do you think that things between you and your spouse/partner are going well?	<i>All the time</i>	<i>Most of the time</i>	<i>More often than not</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
4. Do you confide in your partner?	<i>All the time</i>	<i>Most of the time</i>	<i>More often than not</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
5. Do you ever regret getting married (or living together)?	<i>All the time</i>	<i>Most of the time</i>	<i>More often than not</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
6. How often do you and your partner calmly discuss something?	<i>Never</i>	<i>Less than once a month</i>	<i>Once or twice a month</i>	<i>Once or twice a week</i>	<i>Once a day</i>	<i>More often</i>
7. How often do you and your partner work together on something?	<i>Never</i>	<i>Less than once a month</i>	<i>Once or twice a month</i>	<i>Once or twice a week</i>	<i>Once a day</i>	<i>More often</i>
8. Circle the number that best corresponds to your level of happiness as a couple.	<i>Extremely unhappy</i>	<i>Quite unhappy</i>	<i>A little unhappy</i>	<i>Happy</i>	<i>Very happy</i>	<i>Extremely happy</i>
				<i>Happy</i>	<i>Very happy</i>	<i>Extremely happy</i>
						<i>Perfectly happy</i>

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To calculate the prevalence of couple distress in the parents, the scores were dichotomized by transposing the generally accepted break-up point in the original version of the DAS to the DAS-8 (Spanier, 1976). In the DAS-8, the threshold established was 28 (Bégin et al., 2002). According to this criterion, 17% of mothers and 16% of fathers reported couple distress that was clinically significant. The proportion of couples in which one partner was in distress was 24%, of which in 9% of cases both the mother and father were experiencing couple distress (data not shown). Therefore this indicates that about a quarter of 6-year-old children in kindergarten living in an intact two-parent family had parents experiencing serious problems as a couple. This proportion is close to what was observed when the children were 2½ years of age (Bégin et al., 2002). Indeed, recent studies conducted in the U.S. on two representative samples of couples revealed a marital discord rate of 20% among couples at the beginning of their union (Beach et al., 2005) and 31% among couples who were about 10 years into their marriage on average (Whisman, Beach and Snyder, 2008).

Approximately 25% of children born in Québec at the end of the 1990s still living with both parents at the age of 6 years had a mother and/or father experiencing serious couple problems.

THE COUPLE RELATIONSHIP OVER TIME – THE MOTHERS’ POINT OF VIEW

How did the relationship between the parents evolve in the years following the birth of the child? To answer this question, we examined responses provided each year by mothers on the couple satisfaction scale.⁵

The data reveal that though 17% of mothers were considered to be in couple distress when the child was

6 years of age, a greater proportion, namely one-third (33%), had reported serious couple distress at one time or another since the child was 2½ years of age. More specifically, around 4% of mothers had experienced couple distress in each of the five years for which data was available (data not shown). This low percentage is not surprising, since only couples who had stayed together are in this analysis. However, this illustrates that among certain couples, conjugal distress can be present over many years without the couple resolving it or dissolving the union (Pollien et al., 2008).

The assessment of the couple’s relationship based on the break-up point in the DAS-8 has certain limits, since mothers whose level of couple satisfaction was just slightly above the clinical threshold of couple distress during the study period were considered as never having experienced couple distress (from when the child was 2½ to 6 years of age). This is why we used group-based trajectory modeling to gain a better insight into the developmental course of couple satisfaction.⁶

The analysis produced four distinct groups: 1. mothers who were very satisfied with their couple relationship (34%); 2. mothers somewhat satisfied with their relationship, but who were not necessarily free of certain problems in the couple (42%)⁷; 3. mothers somewhat dissatisfied with their relationship, presenting a degree of dissatisfaction gravitating around the break-up point during the five years analyzed (19%); 4. mothers more likely to continually have scores clearly below the distress level of 28 all through the five years under analysis (4%) (see Figures 5). In general, the trajectories illustrate the relative stability of the degree of conjugal satisfaction among

mothers who in the beginning were somewhat or very satisfied with their relationship as a couple. In contrast, we observe a descending trend of the level of satisfaction among mothers who were close to or below the threshold of distress at the beginning of the observation period. These results partially support the findings of other studies that have revealed a certain decline in couple satisfaction over time (Bradbury, 1998; VanLaningham, Johnson and Amato, 2001).

ARE COUPLE PROBLEMS PREDICTABLE?

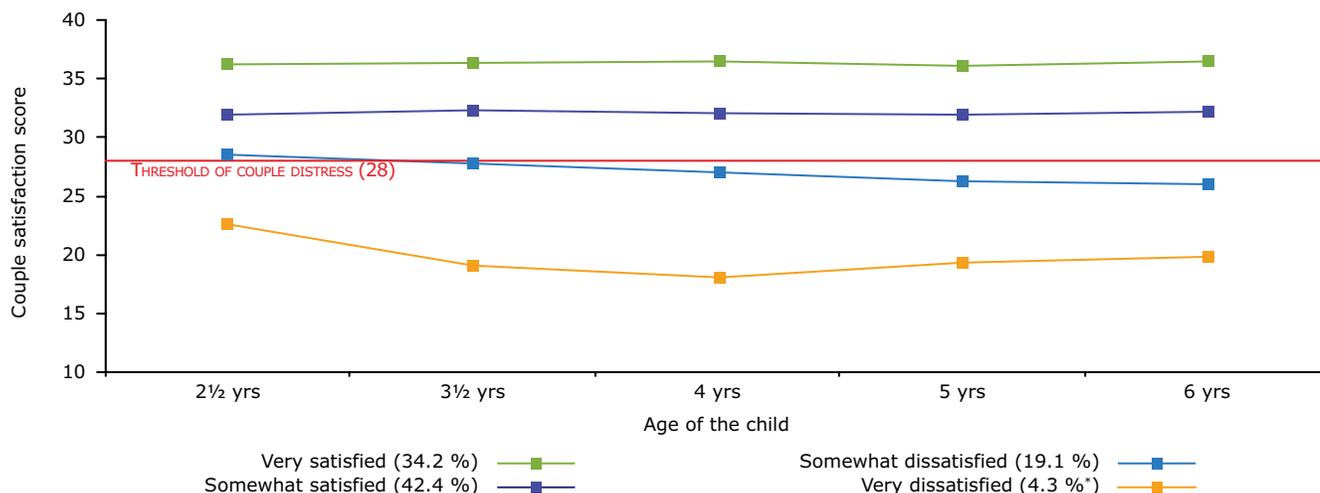
To examine in-depth the contextual factors associated with the quality of the parent's relationship, we tested for possible associations between trajectory membership and various characteristics of the current union or the conjugal and family history of the partners. We examined characteristics that had been associated with either couple adjustment in the first few years following the birth of the child (Bégin et al., 2002) or the risk of an early break-up (Marcil-Gratton, Le Bourdais and Lapierre-Adamcyk, 2002). The characteristics were the following: the type of union at the birth of the child, the mother's age at the beginning of the union, the duration of the union at the time of the birth, the existence of previous unions of the parents, the existence of children from a previous union (usually residing in the household or not), immigrant status of either parent (one Canadian the other an immigrant), the difference in education between the parents (measured in the first round of the survey when the child was 5 months old) and financial insecurity (measured by low household income or the lack of money for basic needs when the

child was 2½ years of age). We also explored the possible association between couple problems and whether the pregnancy was planned (Lawrence et al., 2008). Family and couple dynamics during the period immediately following the birth were also entered in the model using two measurements – the father's degree of instrumental (baby-related tasks, household chores) and emotional support as reported by the mother, and family functioning when the child was approximately 5 months old.⁸

Among the sociodemographic and contextual factors examined, four were associated with the mothers' level of satisfaction with their couple relationship:

- ◇ The fact of having planned the pregnancy or not.⁹ Mothers who had not wanted to be pregnant at that particular time were more likely to have been very dissatisfied rather than very satisfied with their couple relationship over the study period (Table 3).
- ◇ The existence of children from a previous union. Mothers in a couple in which one of the two partners had children from a previous union also had a tendency to be less satisfied (somewhat dissatisfied rather than very satisfied) with their couple relationship.
- ◇ The level of partner support and family functioning when the child was 5 months old. Mothers who said they had relatively less instrumental and emotional support from their partner when the child was 5 months old¹⁰ or whose family was less functional than others,¹¹ namely one characterized by communication problems or conflict at the time, were much more likely to have experienced couple difficulties, i.e. to be in the very dissatisfied, somewhat dissatisfied or somewhat satisfied groups than in the group who was very satisfied with their couple relationship.

Figure 5
Mothers' couple satisfaction trajectories¹ from when the child was 2½ through 6 years of age, Québec, 2000 to 2004



1. Biological mothers living with the biological father since the birth of the child.
* Coefficient of variation between 15% and 25%; interpret with caution.
Source: Institut de la statistique du Québec, QLSCD 1998-2010.

Table 3
Certain contextual characteristics associated with mothers' couple satisfaction trajectory membership, multinomial logistic regression (adjusted odds ratios), Québec, 1998 to 2004

	Odds ratio ^{1,2}		
	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied
Pregnancy was not planned at that particular time	0.88	1.66	5.64 [†]
Mother or father has a child from a previous union	1.80	2.48 [†]	2.90
Low level of support from father³	4.85 [†]	8.00 [†]	20.99 [†]
Unfavourable family functioning when child was 5 months old⁴	5.93 [†]	7.87 [†]	20.17 [†]

1. The reference trajectory group is the one comprising "Very satisfied" mothers. It is recommended here to interpret the odds ratios as evidence of correlations, namely by considering only that the probability is higher or lower for a given factor irrespective of the size of the odds ratio presented. Therefore an odds ratio higher than 1 should be interpreted as indicating that mothers were more likely to be in the groups of "Somewhat satisfied," "Somewhat dissatisfied," and "Very dissatisfied" with their couple relationship compared to mothers in the "Very satisfied" group, while an odds ratio below 1 indicates the contrary.
2. Threshold: †: 0.10; †: 0.05. Given that the complex sample design could not be taken into account here, the confidence intervals of the estimates are not shown. Odds ratio are presented for information purposes only.
3. See footnote 10.
4. See footnote 11.

Source: Institut de la statistique du Québec, QLSCD 1998-2010.

In general, the data suggest a cumulative effect or the recurrence of certain couple problems. Mothers were more likely to be in couple distress when their child was 6 years of age if they had been so at one time or another in the past (data not shown).

These findings clearly illustrate the importance for couples of being sensitive to relationship problems and to seek help if they persist, before they become new parents or have another child, in order to address the exigencies inherent in being parents. This seems even more important since a strong association was observed between the mother's degree of satisfaction with her couple relationship and her level of psychological well-being. At the very least, it was observed that mothers who were somewhat dissatisfied or very dissatisfied with their couple relationship (groups 3 and 4) presented an increase in the score on a scale of symptoms of depression during the pre-school years, while for mothers who were somewhat satisfied or very satisfied, we observed practically no change or a decrease in such symptoms.¹² Moreover, when we examined the situation of all the mothers who were living with the father of the child when he/she was 2½ years of age, we discover that 27% of those who were in couple distress at that time were no longer living with that partner four years later, compared to 11% of those were not in distress (data not shown).

An unplanned pregnancy, low support from the partner and communication problems during the first few months following the birth, were all factors associated with mothers' persistent dissatisfaction with their couple relationship.

When parents separate or divorce

Though the majority of young children whose parents have separated or divorced live with their mother, many go back and forth between the households of the two parents.

The QLSCD collects detailed data on the living or custody arrangements of children of separated and divorced parents, whether or not court-ordered. We also collect data from the mother on the involvement of the non-resident father (contact with the child, financial support). The degree of the mother's satisfaction with the non-resident biological father's involvement is also assessed.¹³

LIVING OR CUSTODY ARRANGEMENTS

Even though the frequency of paternal contact may be an insufficient condition for establishing a close relationship between a father and his child, it seems that the development of the child is generally fostered or less compromised when he/she can maintain ongoing and frequent contact with both parents. Some studies indicate, for example, that children in a joint-custody situation present fewer problems than those in a sole-custody one (with the mother or the father) (Bauserman, 2002). However, it is difficult to know whether it is the modalities of custody that explain this result or the family situation as a whole, since parents who decide on joint

custody generally have a higher socioeconomic status and are less likely to be in conflict (St-Jacques and Drapeau, 2008). For example, certain researchers have demonstrated that frequent contact with both parents is associated with better adjustment, but only when the level of inter-parent conflict is low (Kelly, 2000).

Table 4 shows the data on custody arrangements of children who were not living with both their biological parents at 6 years of age. Columns 1 and 2 present the distribution of children according to the custody arrangements at separation or divorce, then at 6 years of age for children whose parents separated/divorced after their birth; columns 3 and 4 present the arrangements for all children not living with both their biological parents, including those born outside a union. As we can see, among the children of whose parents separated or divorced after their birth, approximately two-thirds were

living with their mother at the time of separation, while 30% cohabited with both parents in a joint arrangement. Approximately 3% were living with only their father. The most common custody arrangement at separation or divorce was where the child was living with his/her mother and regularly saw the father (41%).

Around 9% of 6-year-old children whose parents separated or divorced after their birth never saw their father, and this proportion rose to 19% when children who were born outside the union were included.

Among 6-year-old children whose parents were separated or divorced, approximately 20% never saw their father.

Though the proportion of children who shared their residence time with both parents seemed to decrease over time to the benefit of exclusive time with the mother, the differences observed were not significant.

Table 4
Distribution of 6-year-old children not living with both biological parents, by living arrangements (or custody) and type of contact with the non-resident parent,¹ Québec, 2004

	Children whose parents separated or divorced after their birth		All children whose parents are separated or divorced (including children born outside a union)	
	At the separation or divorce (1)	At 6 years of ages (2)	At birth for those who were born outside a union or at the time of the separation or divorce (3)	At 6 years of ages (4)
	%			
Lives with the mother	65.9	71.1	73.3	75.8
Never sees the father	7.9**	8.6*	16.5*	18.9*
Sees the father occasionally ²	12.7*	12.5*	12.5*	14.2
Sees the father regularly (every week or every two weeks)	41.4	46.1	41.4	39.5
Other frequency of contact with the father	3.9**	3.9**	2.9**	3.2**
Lives with the father³	3.4**	3.6**	2.5**	2.7**
Joint living arrangements	30.6	25.3	24.2	21.4
Lives mostly with the mother	7.4*	6.7*	6.1*	6.8*
Equal time in both households ⁴	23.2	18.6	18.1	14.6

1. As reported by the person most knowledgeable about the child (PMK), generally the mother.

2. Includes for example monthly visits or only on certain holidays.

3. The numbers were too low to analyze the frequency of contact between the child and the mother.

4. Includes certain cases of children living mostly with their father.

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation higher than 25%: imprecise estimate for information purposes only.

Source: Institut de la statistique du Québec, QLSCD 1998-2010.

THE FREQUENCY OF CONTACT WITH THE FATHER OVER TIME

Regarding the frequency of all possible types of contact the child had with his/her father as reported by the mother, 60% had daily or weekly contact (e.g. staying with him, visits, telephone calls, etc.). Approximately 30% had monthly or occasional contact, while 12% had no contact whatsoever (data not shown). Table 5 shows that contact changed over time – approximately 40% of children in kindergarten who were not living in a household with both their biological parents experienced a change in the frequency of contact with their father. For 24% of children, contact decreased, whereas for 16%, it increased.

Table 5
Change in the frequency of contact between the child and non-resident biological parent¹ from birth or parental break-up to 6 years of age, Québec, 1998 to 2004

	Children whose parents separated or divorced after their birth	Children of separated or divorced parents (including those born outside a union)
	%	
No change	63.1	60.1
Increased frequency	14.3*	15.5
Decreased frequency	22.6	24.3

1. As reported by the person most knowledgeable about the child (PMK), generally the mother.

* Coefficient of variation between 15% et 25%; interpret with caution.
 Source: Institut de la statistique du Québec, *QLSCD 1998-2010*.

In a study on children under 12 years of age whose parents had separated or divorced, Juby et al. (2007) observed that approximately 50% of children had experienced a change in the frequency of contact with their father during the two years following the dissolution of the parents' union. Some fathers showed an increase in the frequency of their contact with their child, others showed a decrease. Few fathers who had frequent contact with their child at the time of the separation did not continue to have contact with him/her. Forming a new union with a new partner was associated with a decrease in contact with a non-resident child, but only when this union happened soon after the break-up, namely before the father and child had had the time to structure their post-separation/divorce relationship. Separated or divorced fathers were also more likely to decrease their contact with their children as soon as their ex-spouse/partner formed a new union, namely when their children acquired a step-father. Other studies have underlined the influence of conflict between ex-spouses, geographic distance, financial problems and the child's characteristics on the engagement of non-resident fathers (Ahrns, 2006; Kelly, 2006).

FINANCIAL SUPPORT OF THE CHILD

Although studies that have explored the role of the frequency of contact between the non-resident father and his child's development have resulted in contradictory findings (Amato and Gilbreth, 1999; Fabricius and Luecken, 2007), the fact of the father providing financial support appears to be more clearly associated with the child's adjustment to parental separation or divorce (Amato and Gilbreth, 1999). Indeed, the financial support provided by the other parent, though probably understated by the reporting parent (Lapierre-Adamcyk, Le Bourdais and Martin, 2009), can be considered an indicator of the quality of the co-parenting relationship after the break-up (Carlson, McLanahan and Brooks-Gunn, 2008) as well as the father's level of engagement with his child. These two elements seem strongly associated with the child's adjustment to the union's dissolution (for a review of the literature, see St-Jacques and Drapeau, 2008).

According to the QLSCD data, 59% of children were receiving financial support from their father, most commonly on a regular basis (Table 6). As observed in other studies (Juby et al., 2007; Veum, 1993), fathers who had more contact with the child were more likely to contribute financially to cover the child's expenses. Indeed, 68% of fathers who had monthly, weekly or daily contact with the child contributed financially to covering his/her expenses. In comparison, 28% of fathers who did not have contact or only occasional contact with the child were providing financial support.

When we examine the financial support provided by the father to children who divide their time equally between living in his and the mother's household, we observed that in nearly half of cases (48%) the father was still providing regular financial support to the mother to cover the needs of the child, while an equivalent proportion (48%) were not doing so (data not shown). This lack of financial support for the mother for half of the children could be the result of an agreement between the parents by which the father is already covering an appreciable amount of the financial burden related to the child. The vast majority of mothers whose children had living arrangements with both separated/divorced parents reported they were satisfied with the financial contribution of the father (see further in the text).

Table 6
Distribution of 6-year-old children whose parents are separated or divorced, by financial support from the father and frequency of contact with him, Québec, 2004

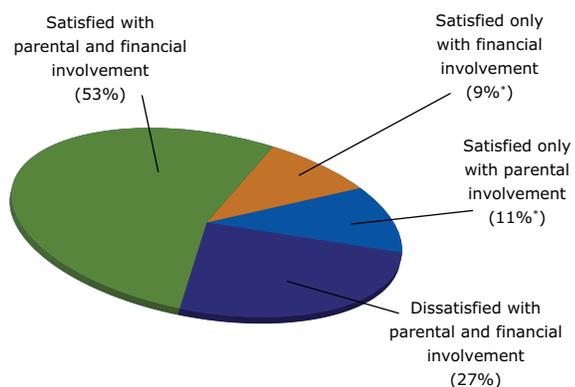
	Father's financial support		
	Regular	Irregular	None
	%		
Frequency of contact¹			
No or occasional contact	15.2**	12.5**	72.2
A few times a month or more	57.0	11.2*	31.8
Total	47.5	11.5*	40.9

1. Including all types of contact – visits, telephone calls, letters, emails, etc.
 * Coefficient of variation between 15% and 25%; interpret with caution.
 ** Coefficient of variation higher than 25%; imprecise estimate for information purposes only.
 Source: Institut de la statistique du Québec, QLSCD 1998-2010.

ASSESSING THE SEPARATED FATHER'S INVOLVEMENT

Figure 6 shows that over half (53%) of separated or divorced mothers were satisfied with the parental and financial involvement of the father, 9% were satisfied with only the financial involvement, and a similar proportion with only the parental involvement; 27% reported being dissatisfied with both the parental and financial involvement of the father.

Figure 6
Distribution of 6-year-old children whose parents are separated or divorced, by the mother's level of satisfaction with the father's parental and financial involvement, Québec, 2004



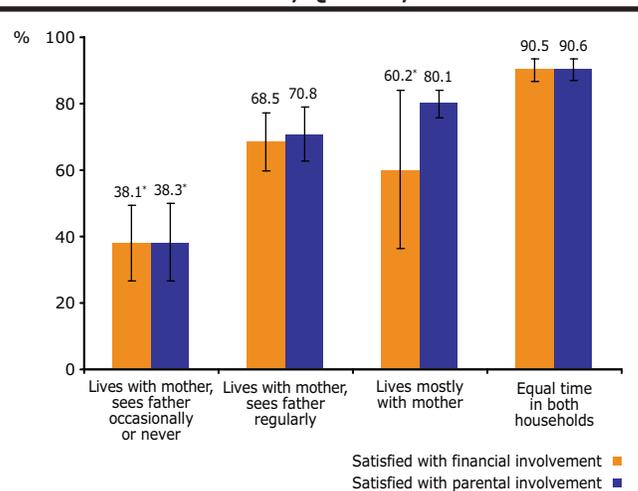
* Coefficient of variation between 15% and 25%; interpret with caution.
 Source: Institut de la statistique du Québec, QLSCD 1998-2010.

Mothers whose children divided their living arrangements with both parents equally were more likely to have a positive assessment of the father's involvement. Over 90% reported being satisfied with both the parental and financial involvement of the father. In contrast, mothers whose children never or only occasionally saw their father were less likely to report being satisfied with his

involvement (Figure 7). Some other differences were observed when we examined the mother's satisfaction level by her conjugal status. Compared to single-parent mothers, those living with a new spouse/partner tended to be more satisfied with the financial support of the biological father ($p < 0.10$), while there was no significant difference detected in terms of satisfaction with the father's parental involvement (data not shown). Whether or not the father had a new spouse/partner did not seem to be

Approximately half of separated/divorced mothers were satisfied with the parental and financial involvement of the father. Mothers whose children spent an equal amount of time in each parent's household were more likely than other mothers to be satisfied with the father's involvement.

Figure 7
Proportion of separated and divorced mothers reporting being satisfied with the father's parental and financial involvement, by living arrangements (or custody) and frequency of child's contact with the father, Québec, 2004



* Coefficient of variation between 15% and 25%; interpret with caution.
 Source: Institut de la statistique du Québec, QLSCD 1998-2010.

associated with the mother's assessment of his parental or financial involvement (data not shown). With regards to parents who separated or divorced after the birth of the child, neither the age of the child at the time of parental break-up nor the type of union before the separation/divorce (marriage or common-law) was associated with the level of the mother's satisfaction with the father's involvement.

THE ATMOSPHERE BETWEEN PARENTS

Research has clearly shown that conflict between ex-spouses/partners, particularly unresolved issues such as the lack of parental cooperation, is among the most important predictors of adjustment problems in children after the separation or divorce (Cox, Paley and Harter, 2001; St-Jacques and Drapeau, 2008; Sarrazin and Cyr, 2007). Two variables seem to characterize situations in which conflict persists or worsens, namely low family income (Bonach, 2005) and a tense atmosphere at the time of the break-up (Santeramo, 2004).

In the QLSCD, mothers who were separated/divorced from the father of the child were asked to assess the atmosphere between themselves and their ex-spouse/partner. Although the majority described it as good (39%) or somewhat good (32%), 12% reported that the atmosphere was bad or very bad, while 17% indicated they had no contact with him (data not shown). The numbers in certain categories of mothers were unfortunately too small to analyze the factors associated with the mothers' assessment.



Conclusion

The QLSCD is a unique source of data for analyzing the family trajectories of children. Indeed detailed information has been collected on the parental and couple history of both biological parents as well as the custody arrangements of the children of separated or divorced parents. Given that numerous children of separated/divorced parents circulate between two households, these data are essential for advancing our understanding of the complete family environment in which the children are growing up.

Among children born in Québec at the end of the 1990s, approximately 70% were living with both biological parents from birth to kindergarten, while only 3% had always lived in a single-parent household, either with a sole parent or with each parent in separate households. The remaining children, over 25%, had experienced at least one change in their family structure related to their parents' separation, divorce or formation of a new union. Children born into a single-parent household were more likely to have lived through several family transitions compared to those born into a household with both biological parents.

For children growing up in a household with both parents, family life is not necessarily a smooth-flowing stream. At least one-third of children in kindergarten had a mother who had experienced one or more episodes of couple distress since their birth. Mothers who reported receiving little emotional or instrumental (e.g. helping with the baby or housework) support from the father in the months following the birth were far more likely to have experienced couple problems. Among mothers who had experienced couple distress when the child was 2½ years of age, 27% separated or divorced in the next four years compared to 11% of other mothers.

Given the negative impact of an unfavourable family atmosphere on the well-being of parents and children, many stakeholders have emphasized the importance of interventions aimed at improving the quality of the relationship between the parents of young children, whether or not they are in the process of separating or divorcing (Ahlborg, Misvaer and Möller, 2009). Researchers have also drawn attention to the importance of programs designed to help young adults improve their ability to resolve couple problems before having children (Bernardini

and Jenkins, 2002). A better understanding of the sources of tension and conflict in Québec parents of young children and various strategies to resolve these can most certainly contribute to the establishment of programs specifically designed for this population. It should be underlined that screening and treatment programs for couple problems do now exist in Québec (inspired by American and European research; see, for example, Gurman, 2008). Their goal is to respond to the particular needs of young parents or couples in the early stages of a union and to a wide range of associated physical and mental health problems, such as substance abuse, anxiety, depression, sexual problems, and violence (Wright, Lussier and Sabourin, 2008).

However, sometimes the break-up of the parents is the only solution. It is an event that requires a large capacity for adjustment and presents particular challenges in various areas of family life. Although numerous studies have emphasized the stressful effects of family transitions on children, others suggest that such impacts can manifest later (Cavanagh and Huston, 2008) or that the effects associated with each transition can be cumulative, compromising the children's development (Fomby and Cherlin, 2007; McLanahan, 2004). The experience of family instability can, however, differ from one family to another according to the resources available, which can either exacerbate the effects of multiple transitions or protect children from them (Cavanagh and Huston, 2006). A number of studies have shown that children maintaining contact with both parents as much as possible and cooperation between ex-spouses are determinants of children's adjustment to separation or divorce (Cox, Paley and Harter, 2001; St-Jacques and Drapeau, 2008). The QLSCD data revealed that among children in kindergarten whose parents have separated or divorced, approximately 30% had only monthly or occasional contact with their father, and 12% had no contact whatsoever with

him. Furthermore, 12% of mothers reported that the atmosphere of the relationship with their ex-partner was bad or very bad, and 17% indicated they had no contact with him. Given these findings, further research into factors that foster paternal engagement after a break-up appears essential. In terms of intervention, we should emphasize here that free mediation services have been available to parents in all regions of Québec since 1997. These are designed for parents who have decided to separate or divorce and have not found a common ground of agreement on various topics such as living arrangements or custody of the children, alimony or financial support, or the division of assets. Although the effectiveness of these programs has been acknowledged, awareness of their existence in the target population could be improved (Légaré, 1999). Other stakeholders have underlined the necessity of having psychological services available in parallel (Conseil de la famille et de l'enfance, 2006). Some researchers believe that parents must be more sensitized to the importance of confirming their agreement legally in front of a judge during the separation process, since if disagreements surface later, there is no ruling to follow and the arrangements may therefore be reviewed or revised in an often less favourable context (Belleau and Talbot-Lachance, 2008).

In brief, the findings show that the diversity and complexity of family trajectories experienced during early childhood constitute a major challenge for both research and the development and implementation of health and social policies. Prospective longitudinal surveys such as the QLSCD are an invaluable source of data to gain a better understanding of how family transitions or exposure to an unfavourable family atmosphere can affect child development. Family transitions and their impacts will be better understood as more analyses are conducted on the data collected up to high school entry.



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2. All the data presented in this fascicle were weighted and therefore adjusted to allow for a generalization of the results to the target population of the QLSCD. In addition, unless otherwise indicated, the estimates take into account the complex sample design of the survey.
3. Note that recently another abridged version of the DAS has been suggested, this one with 4 items (Sabourin, Valois and Lussier, 2005). It comprises items 2, 3, 4 and 8 in Table 2. In order to ensure comparability with other published research based on QLSCD data (B  gin et al., 2002), it was decided to use the 8-item version here.
4. The functional/dysfunctional family scale used in the 2004 round of the QLSCD was an abridged version of the family functioning scale used in the Ontario Child Health Study (Offord, Boyle and Racine, 1989). This scale assessed the quality of support, communication, and acceptance of the partner as well as conflict resolution in the family. For more details on the abridged version used in the QLSCD, access the following page on the ISQ website: www.jesuisjeserai.stat.gouv.qc.ca/doc_tech.htm (in French only).
5. The reason for focusing here on the mothers' point of view is that the longitudinal response rate of mothers was higher than that of fathers. Not excluding the possibility of eventually conducting a similar analysis on the fathers, this would require a more in-depth examination of the data, which is beyond the scope of this fascicle.
6. Group-based trajectory modeling was used to identify distinct clusters of mothers according to the developmental course of couple satisfaction during the study period. The models were constructed using the "traj" procedure of the SAS computer program. To determine the optimal number of groups, models comprising between one and five groups were fitted to the data. The optimal model comprising four groups was established using the Bayesian information criterion (BIC). This criterion is commonly used to select the model which best fits the data; that which has the lowest value indicates the most parsimonious model (for more details on this method see Nagin (2005) and Nagin and Tremblay (2005)). Note that the attribution of mothers to a given trajectory was based on a likelihood method. The estimated proportions should not be considered equivalent to the real percentage of mothers in the target population belonging to a certain group.
7. Among these mothers, approximately 25% had experienced at least one episode of couple distress.
8. For this analysis, we conducted a multinomial logistic regression comparing the groups of mothers who were very dissatisfied, somewhat dissatisfied and somewhat satisfied with the group of those who were very satisfied. To accomplish this, we used the "risk" option in the "traj" procedure of the SAS computer program. Since this procedure did not take into account the complex sample design of the survey, a more conservative threshold was established for the analyses, namely 0.01 for a significant difference at 0.05.
9. When they were pregnant, mothers were asked whether they: 1. wanted to be pregnant at that particular time; 2. would have preferred to have the child earlier; 3. would have preferred to have the child later; 4. did not want this pregnancy. For the purposes of this analysis, mothers who responded that their pregnancy was wanted at that particular time were compared to other mothers.
10. In the QLSCD, the degree of partner support was assessed when the child was 5 months old using five questions exploring various situations. For each statement, the mother responded using a Likert-type scale with 11 points (0 = "Not at all" to 10 = "Totally"), indicating her evaluation of the level of instrumental support (baby-related tasks, household chores) and emotional support her partner was giving her ("To what extent do you feel supported by your current spouse (partner) when you feel overwhelmed?," "To what extent do you feel supported by your current spouse (partner) when you feel sad?") as well as overall support ("Overall, to what extent do you feel supported by your current spouse (partner)?"). Based on the five items, mothers were assigned an average score on a scale. Those whose score was in the lowest quintile on the scale were considered to be less supported by their spouse/partner compared to other mothers.
11. For the purposes of this analysis, mothers whose score was in the highest quintile of the dysfunctional family scale were considered to be in a less functional family compared to the other mothers.
12. To obtain this result, we compared the mean difference in scores obtained on the maternal depression scale during the years for which these data were available, namely when the child was 1½ and 5 years of age, according to couple satisfaction trajectory membership. The results indicate that among mothers who were in the "Somewhat dissatisfied" or "Very dissatisfied" trajectory groups, the scores on the maternal depression scale were significantly higher when the child was 5 years old than when he/she had been 1½ years old, whereas among other mothers the scores remained virtually the same or had decreased (data not shown).
13. Some studies have drawn attention to problems with this approach because of the divergence in data collected from the two separated or divorced parents on topics such as the father's involvement with the children or level of financial support he provides (Braver et al., 1991; Lapierre-Adamcyk, Le Bourdais and Martin, 2009; Schaeffer, Seltzer and Klawitter, 1991). Although data on these various aspects had been collected from non-resident fathers in the first few rounds of the QLSCD, the low response rates could not provide a representative portrait of their perceptions and opinions.

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