Two Decades of Same-sex Marriage in Sweden:

A Demographic Account

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Abstract: In this study we examine period trends in same-sex marriage formation and divorce during 1995-2012 in Sweden. This period begins with the introduction of the registered partnership for same-sex couples and also covers the introduction of formal same-sex marriage in 2009. We use register data for the complete population of Sweden, and contrast patterns for male and female same-sex unions with those of opposite-sex unions. Our study shows that female same-sex union formation has increased rapidly over the period, while trends for male same-sex unions show less of increase. The introduction of same-sex marriage legislation in 2009 appears to have had no noticeable effect on the pace of formation of new same-sex unions. In contrast, legal changes that supported parental rights in same-sex unions may have fueled the formation of female same-sex marriages. Further, we find that divorce risks in the marital unions of two women are much higher than in other types of marriages. We present some evidence of a convergence in divorce patterns over time. At the end of our study period male same-sex unions have the same divorce risk levels as opposite-sex marriages, while the elevated risks of divorce in female same-sex unions appear to have stabilized at levels somewhat lower than those observed at the late 1990s.

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Introduction

Sweden is often considered a forerunner in family change as regards many aspects of the so-called second demographic transition of increased diversity in family dynamics. New family trends have often appeared in Sweden and the other Nordic countries in order to later be observed across Europe and in other developed countries (van de Kaa 1987, p 11). It may be debatable whether this is a general pattern but it certainly holds for the development of same-sex unions and the legal recognition of same-sex marriages. This family form first gained legal recognition in the Nordic countries in order to later get established in a wide range of countries across Europe. Same-sex marriages or partnerships are now an established family form all over Northern and Western Europe, as well as North America (Chamie and Mirkin 2011).

This family form is still relatively new but in Sweden it has at present existed for about two decades. Data on same-sex partnerships and marriages in Sweden are available through the country's extensive population-register system. This makes it possible to carry out a demographic survey of the patterns in same-sex marriage formation and marriage dissolution for a period of time that covers more than just the initial phase of very new same-sex marriages. Our study expands on previous demographic research on same-sex marriages in Scandinavia by Andersson et al. (2006) and Andersson and Noack (2010) in order to determine whether the early patterns of same-sex marriage dynamics reflected some stable patterns in such union dynamics or rather those of a transitional phase dominated by the pioneers in same-sex marriages. We also further examine the role of childbearing in same-sex union dynamics. Earlier findings indicated a cross over from a dominance of male couples to that of female couples in same-sex marriage formation; they also demonstrated elevated divorce risks in the same-sex marriages of women. A recent study from Norway indicates that many of the patterns initially observed in that country seem to hold also during a more extended study period (Wiik, Seierstad, and Noack 2014). In our study we aim at finding out whether the same holds for Sweden. For this purpose we study the development in the demographic rates of same-sex marriage formation and same-sex marriage dissolution in each calendar year during 1995-2012. We add insight into the dynamics of a family form that has previously been able to study only during very short periods of time or with very poor data. Our study covers longitudinal information on 2,142,905

men and 1,893,518 women, of which 4,230 women and 2,444 men formed a same-sex marriage during our study period.

In our study we relate period trends in same-sex marriage formation and divorce to a few critical junctures (Neyer and Andersson 2008) in terms of legal changes in the status of same-sex marriages in Sweden: those related to the status of marriage itself and those related to the status of parenthood in same-sex unions. The latter paved the way for the formal adoption in Sweden of the truly gender-neutral marriage legislation in 2009, but followed the introduction of the registered partnership in 1995. This sequencing of events allows us to study whether factors related to the symbolic framing of marriage or rather those of practical matters in relation to parenthood matter more for the evolution of same-sex marriage trends in Sweden.

The introduction of same-sex marriages in Sweden

During the 1980s and 1990s the Nordic countries were forerunners to grant legal recognition to partners of the same sex. Denmark initiated this development in 1989 by introducing a new civil status, the *registered partnership*, for this purpose. This civil status was different in name but otherwise similar in contents to that of heterosexual marriage. Norway and Sweden followed the example of Denmark a few years later; Sweden introduced its registered partnership in 1995. In terms of legal rights and social practice, the registered partnership amounted to a de facto same-sex *marriage*. With a few but important exceptions, the registered partnership gave the same legal rights and duties as what a marriage provides to opposite-sex couples. Clearly, in the Nordic countries these rights are not very extensive as most social rights hold independent of a person's marital or family status. The exceptions consisted of one or more of the following issues: the opportunity to jointly adopt a child, to have medically assisted insemination, the forms of how to solemnize the partnership, and requirements of legal residency in the country before entering partnership. Swedish historian Jens Rydström (2011) refers to these exceptions as the three C's related to Children, the Church, and Citizenship. These exceptions were, however, questioned and many of them cancelled during subsequent years. For example, in 2003 registered partners in Sweden were allowed to jointly adopt a child and in 2005 medically assisted insemination was made available to women in registered partnerships. Already from the

onset, the procedures for dissolving a registered partnership were the same for registered partners as for opposite-sex spouses. In our study we refer to both registered partnerships and formal marriages as "same-sex marriage", as little else than the label of the union actually changed in 2009.

The introduction and broad acceptance of the registered partnership paved the way to subsequent adjustments of the marital code to have it formulated in a truly gender-neutral manner. Sweden completed its process of granting same-sex couples the same rights to marriage as those granted to couples of opposite sexes in 2009: it then adopted a fully gender-neutral marriage legislation. In the same year, the clergy of the Swedish State Church voted to embrace the new legislation by enacting equal rights for the solemnization of same-sex and different-sex marriages in Swedish churches. No new registered partnerships could be formed subsequent to the introduction of the new legislation. Couples who had already entered a registered partnership may however retain their civil-status label as registered partners if they want to. If they prefer they can choose instead to convert their civil status to that of marriage. This is mainly a symbolic act, as there are no longer any legal differences attached to the statuses of already registered partnerships and same-sex marriages. Symbolic issues may still matter in relation to marriage formation and divorce, a fact that we will exploit in our research design.

Data

Our analyses are based on Swedish register data, and in particular on the civil status register that covers information on all registered changes in the marital status of each individual living in Sweden. Records on civil status changes can be linked to birth histories and migration histories by means of an administrative personal identity number (PIN) of each person with legal residence in Sweden. During our study period Sweden lacked a register on residence by unique dwelling units, which makes it impossible to study cohabiting unions. However, even with the presence of such registers, same-sex cohabitants would be very hard to detect on the basis of administrative data sources (Festy 2007; Kreider and Lofquist 2014).

After the introduction of the registered partnership in 1995 Statistics Sweden collected data on this new family form. As for other Swedish statistics, data were collected on an individual basis showing statistics on the number of women and men in different family types and on changes in

the civil status of women and men with residence in Sweden. Heterosexual marriages can be solemnized through local municipalities as well as through the procedures of a number of religious denominations in Sweden. Swedish authorities have also carried out the solemnization of registered partnerships. After 2009 with the introduction of formal same-sex marriage, the Swedish Church, previously the state church of Sweden, also carry out same-sex weddings.

Our statistical analyses are based on Swedish-born individuals that were under the risk of experiencing any civil status change during 1995-2012, and the civil-status changes experienced by these individuals. We control for any previous civil status histories during the 1970s onwards. Our analyses include both women and men who may form or dissolve same-sex and opposite-sex marriages. For opposite-sex marriages we mainly present trends for women as the trends for men mirror those of women. We only study the risk of first marriage formation, and the dissolution of first marriages, as the number of same-sex marriages in higher order marriages is very small. Our analyses also include women and men at risk of same-sex marriage formation, who previously had been in an opposite-sex marriage.

Our childbearing records are related to the vital events through Swedish birth registers. They register biological parenthood, and as such every child is supposed to be registered with their genetic father and mother. Adoption is legal for same-sex unions since 2003 for men and women in a registered partnership or marriage (Malmquist 2015). In practice, donor countries do not accept same-sex parents, so international adoptions are close to non-existent. Since 2003 there has however been an increasing number of second-parent adoption, in which the spouse of one partner adopts the biological (or rarely adopted) child of the other spouse (Malmquist 2015). These adoptions take in 82% of the cases place during the first year of the child's life (Malmquist 2015). This is overwhelmingly concentrated in female same-sex unions. In 2005, same sex couples got the right to government assisted reproduction treatment on the same terms as opposite-sex couples, which has been used increasingly be female same-sex couples. In these cases the partner can be granted automatic parental rights of the child, without the adoption process required for second-parent adoptions. In such unions biological parenthood is registered for the women that gave birth to the child. We discuss the implications of the use of governmental vital statistics for studying same-sex childbearing in the conclusion of our study.

One important such implication, is that individual level analyses of female same sex unions will substantively undercount the proportion of same-sex unions with children.

Methods

Our analyses of same-sex and opposite-sex marriages cover all new unions formed by individuals aged 16-48 during 1995-2012. For our analyses of first marriage formation individuals are under risk from age 16 or January 1, 1995 until the event of marriage or censoring due to emigration, age 49, death, or the end of 2012, whatever comes first. The analyses of opposite-sex marriage formation censor at same-sex marriage formation, and vice versa. Individuals who divorce from an opposite-sex marriage, re-enter the study upon divorce as being under risk again of first same-sex marriage formation. We include a time varying covariate to identify these individuals. In 2009 and 2010, with the introduction of the new gender-neutral marriage legislation, a substantial number of registered partnerships were converted into formal marriages. These conversions are not included in our analyses, as they represent no change in the de facto civil status, and individuals in these unions remain under risk of divorce based on the date of the entry to the original registered partnership.

We use event history analyses to present time trends of the relative risks of first marriage formation and dissolution. Our strategy is similar to that first suggested by (Hoem 1991; Hoem 1993). We include a covariate with annual period dummies in our regression models to examine how the relative propensity of marriage and divorce has changed over all calendar years since 1995. In our models we use 2002 as a reference year, as in that year the absolute number of newly formed male and female same-sex marriages where approximately the same. In our models, we standardize for the effects of a number of demographic background variables, which means that we control for the effects of compositional changes among men and women over these variables. We include covariates for age, parity, premarital childbearing, and the duration since marriage formation. Additionally, for same-sex marriage formation we apply a time-varying covariate on whether an individual had previously experienced being in an opposite-sex marriage. We also use descriptive analyses to study the prevalence of previous childbearing at

the time of marriage formation and continued childbearing during the first five years following marriage formation.

The purpose of our depiction of period trends in same-sex marriage formation and divorce is to follow how these trends have evolved over time. In particular, we want to relate them to two critical junctures in terms of the legal status of same-sex marriages in Sweden: one related to the liberalization of the rules connected to parenthood in same-sex marriages that occurred in 2003 and 2005, respectively, and one connected to the change in the status of marriage in terms of solemnization procedures and the actual labeling of "marriage" that occurred in 2009. Both changes may have had an impact on intensities in marriage formation and divorce; the impact may have been different for women and men.

Results

Changes in entry into same-sex marriages, 1995-2012

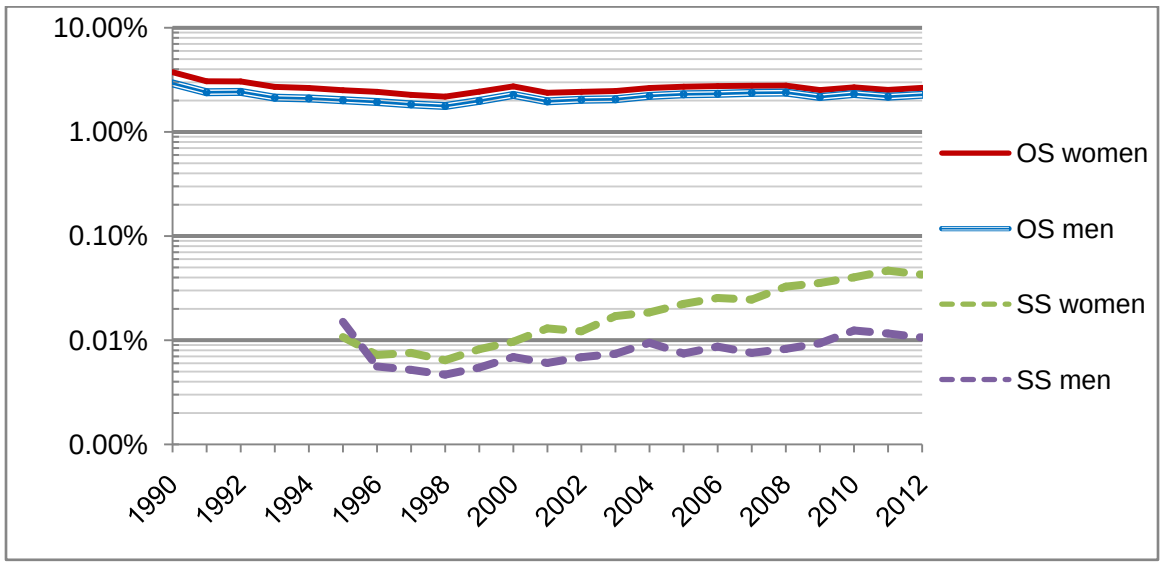
We begin by showing how the crude rates of same-sex marriage formation have changed since the introduction of the new legislation in 1995 (Figure 1). We define first same-sex marriages of women and men at ages 16 to 48 as our occurrences, and the unmarried population at ages 16-48 as our exposures (thus, excluding episodes in which individuals were married in an opposite-sex marriage). We also present the corresponding rates of opposite-sex marriage formation as comparison; due to different magnitudes in rates these differences are shown in a logarithmic scale. There was an initial spike in rates of same-sex marriage formation just after the introduction of the registered partnership in 1995, likely related to pent-up demand. This spike was more marked for men than for women, and more men than women got married in a same-sex union during that year. However, during all calendar years after 1995 women have had consistently higher rates of same-sex marriage formation than men. This early cross over towards elevated propensities for female same-sex marriage formation is not visible in simple statistics on just the numbers of marriages formed in each year, where no account is taken for the size of the un-married population under risk.

There have been clear increases in the rates of same-sex marriage formation for men over time, amounting to a doubling of rates from 0.005% to 0.01% over a year between 1996 and 2012, but the rates for women increased much more rapidly over time (Figure 1). The probability of a woman getting married in a same-sex union in a given year has increased almost six times from 0.007% to 0.043% between 1995 and 2012. We note that these increases took place during a period in which also the rates of opposite-sex marriage formation increased – for women as well as for men (cf. Ohlsson-Wijk 2011; Andersson and Kolk 2015). A closer inspection reveals that the marriage rates started to increase for all three types of marriages around 1999. The increase in heterosexual marriage formation does not come out very strong in our logarithmic representation but amounts to an impressive relative increase by 20 percent in marriage rates between 1998 and 2012.

We further analyze the risk of same-sex marriage formation by applying event-history analyses where we standardize for underlying changes in the composition over demographic covariates over time (Figure 2). These results confirm the results from our presentation of crude rates. There has been a very rapid increase in the risk of same-sex marriage formation over time, in particularly for women. In the beginning of the 2010s women had a relative risk of same-sex marriage formation about three times as high as for men. Interestingly, it appears that the introduction of formal same-sex marriage legislation in 2009 did not have any noticeable impact on the rates of new same-sex marriages. Both for men and women we observe an absence of trend change in the rates of new same-sex marriage formation around 2009 (though there were a large number of men and women that choose to convert their registered partnership into a formal marriage). After 2010-2011 the increase appears to have leveled off and the risk even declined modestly in our last year of observation. This trend break appears to have continued in 2013 and 2014 based on official statistics on the total number of same-sex marriages formed (Statistics Sweden 2015). In contrast, the granting of adoption rights to same-sex couples in 2003 may have fuelled the trend of increasing rates of female same-sex marriage formation. The long-term trend in relative risks of female same-sex formation appears to accelerate in that year. Our results are controlled for the impact of compositional changes over our other variables at hand, including the very low risks of same-sex marriage formation for non-married fathers and mothers who in most cases live in heterosexual unions (Appendix Table A1).

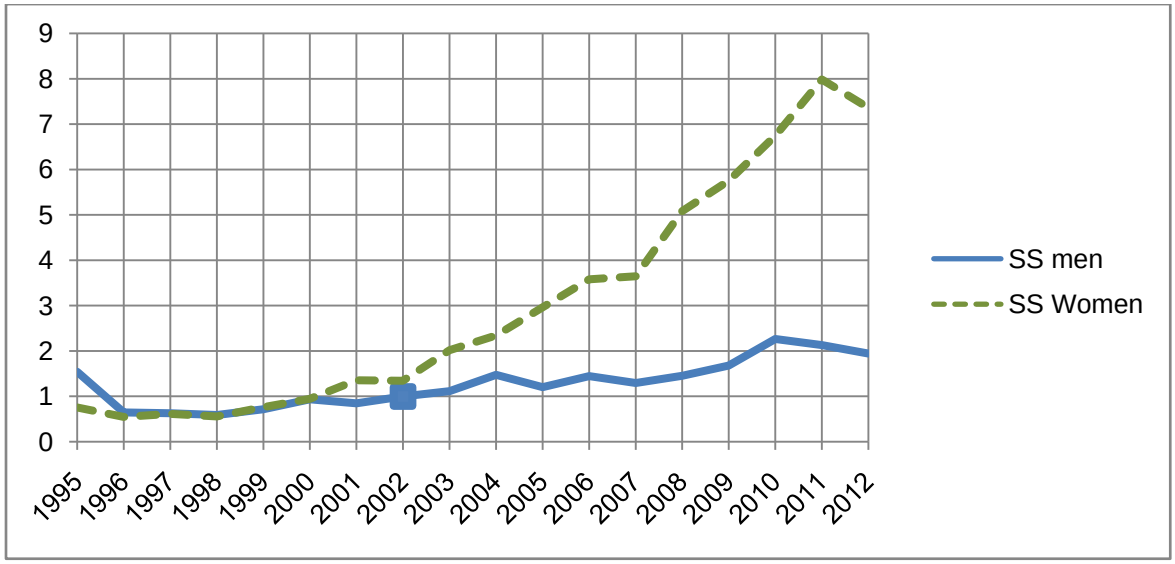
The importance of examining both absolute numbers of marriages, as well as rates by means of life table techniques is illustrated by the different age profiles of opposite-sex marriages, female same-sex marriage, and male same-sex marriage. Peak intensities of first marriage formation take place at younger ages for opposite-sex marriages, than for same-sex marriages. Additionally, female same-sex marriage formation takes place earlier than the formation of male marital couples. (The age specific marriage hazards are shown in Appendix Figure A7.) As male same-sex marriage formation occurs much later in life men also spend much longer time "under risk" of getting married, which reduces their rates of marriage formation. The faster motion of women translates into higher rates of marriage formation.

Figure 1: Annual rate of first same-sex and opposite-sex marriage formation for Swedish-born never-married men and women at ages 16-48. Number of marriages divided by never-married population at risk, 1990-2012.



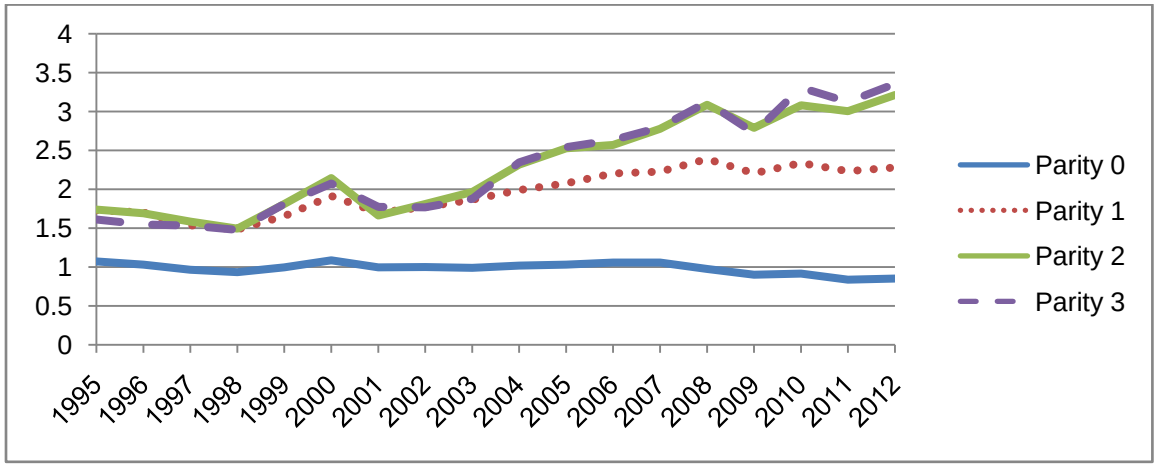
Source: Swedish register data, authors' own calculations

Figure 2: Relative risks of first same-sex marriage formation in Sweden, by calendar year and sex, 1995-2012. Risks relative to that of men in 2002. Risks are standardized for age group, parity, and the experience of any previous opposite-sex marriage.



Source: Swedish register data, authors' own calculations

Figure 3: Relative risks of first opposite-sex marriage formation for women in Sweden, by calendar year and parity, 1995-2012. Risks relative to that of childless women in 2002. Risks are standardized for age.



Source: Swedish register data, authors' own calculations

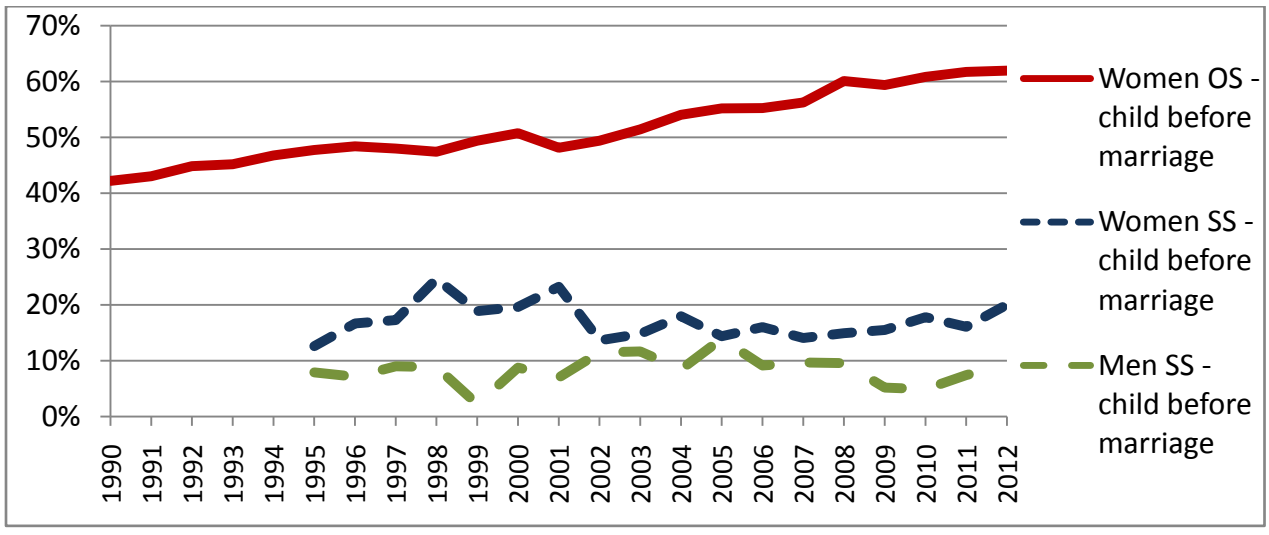
Figure 3 demonstrates that recent increases in the formation of heterosexual marriages in Sweden entirely are connected to the increased marriage formation of parents. Marriage has increasingly

become connected to parenthood and tend to form a final step in Swedish couples union careers, (Holland 2013), at least in the absence of divorce. This makes it urgent to study the role of childbearing and parenthood in relation to same-sex marriage formation.

Childbearing in same-sex marriages, 1995-2012

Consequently, we turn to the analysis of childbearing in relation to same-sex marriage. We begin by showing the prevalence of pre-marital childbearing, which in many cases reflects childbearing in a previous heterosexual relationship. From previous analyses we know that significant portions of individuals in same-sex marriages have children from previous opposite-sex unions, and that this is particularly evident for women (Andersson et al. 2006; Wiik et al. 2014). In this section, we present data on the experience of any previous childbearing at time of same-sex marriage formation. In Figure 4 we show trends for childbearing before same-sex marriage formation in relationship to childbearing before opposite-sex marriage formation, which shows that a stable proportion of women (a little less than 20%) and men (a little less than 10%) who enter same-sex marriage have children at that time. For opposite-sex women we find an increasing share of women (more than 50%) with children at entry into marriage, consistent with previous Figure 3 on first marriage entry risks by parity.

Figure 4: Annual proportions of women and men that enter first same-sex and opposite-sex marriage who are parents at the time of marriage formation, Swedish-born men and women at ages 16-48.

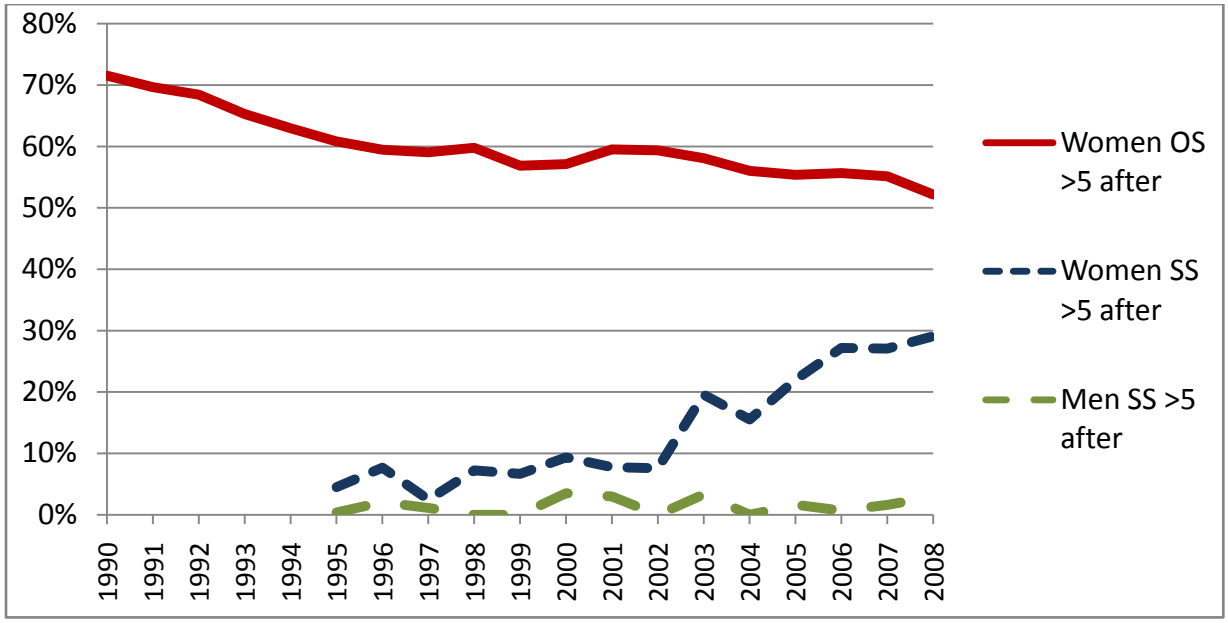


Source: Swedish register data, authors' own calculations

A more recent phenomenon is an increase in childbearing after same-sex marriage formation (Aldén et al. 2015), which suggests an increasingly important relationship between marriage and parenthood for same-sex partners. Unlike most cases of premarital childbearing, these cases occur in relation with the same-sex spouse. Figure 5 demonstrates the levels childbearing after marriage formation, by same-sex-marriage cohort. As we observe couples during their first five years of marriage our analyses end in 2008. We demonstrate that while childbearing was relatively uncommon following same-sex marriage formation in the 1990s, it began to increase strongly for women in the early 2000s. Men have consistently very low proportions of marriages with subsequent childbearing, as related to their very limited legal possibilities for adoption in Sweden. In the last marriage cohort for which we have data during a five-year follow-up, over 20% of women in same-sex marriages had a child during the follow-up.

Our registers pertain to childbearing where the index person is the registered biological parent. Given the very small opportunities for international adoption for both women and men in same-sex unions (related to policies in the sending countries), opportunities to become a parent are much larger for women than for men in same-sex marriages. Another observation is that in female same-sex marriages, unlike in opposite-sex marriages, the childbearing history of just one spouse is not a good indicator of the total childbearing in the new union. In order to examine this, we also examined whether any of both partners in a new marriage had another registered child within the first five years of marriage. Such an analysis (Appendix Figure A8) confirms that a single-sex focus underestimates the amount of childbearing in same-sex marriages. Almost 50% of all female same-sex marriages formed in 2008 produced at least one new child during the first five years of marriage. In 7% of all such same-sex marriages, both women had a child within this period.

Figure 5: Annual proportions of women and men in first same-sex and opposite-sex marriages that had a child within five years after the month of first marriage formation, Swedish-born men and women at ages 16-48.



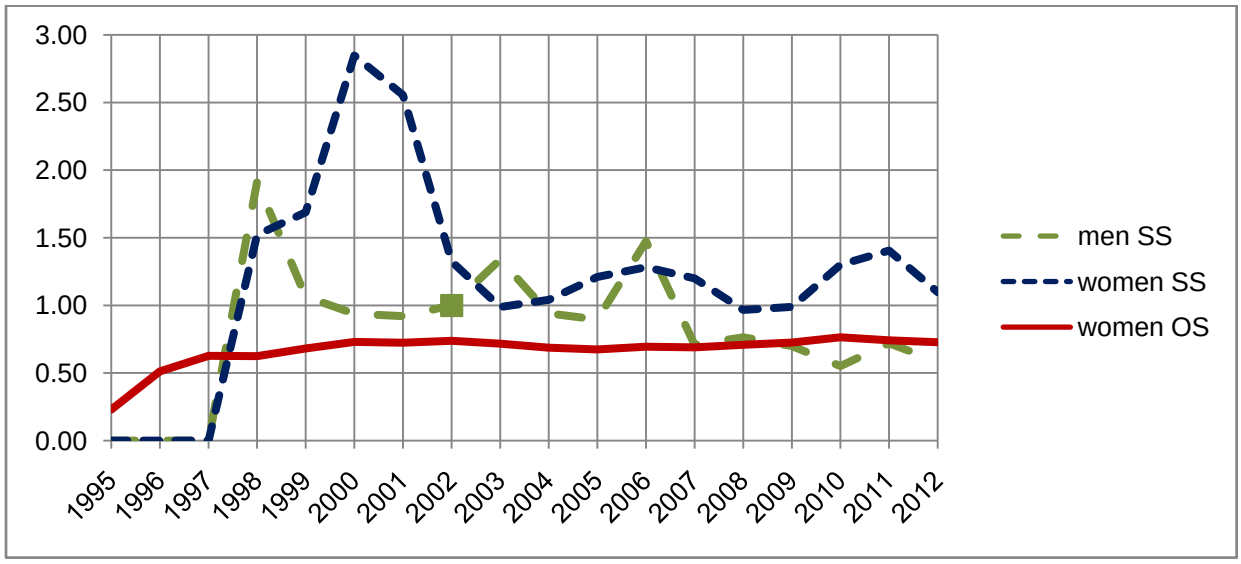
Note: Proportions for OS Men are very similar to proportions for OS-women

Source: Swedish register data, authors' own calculations

Changes in divorce risks in same-sex marriages

Following our analyses of entry into unions we also present information the dissolution of same-sex unions, with comparisons with opposite-sex unions. In Figure 6 we present how the divorce risks for women and men in same-sex marriages have changed over time. Divorce risks are somewhat lower at the end of the study period than during earlier years. People in same-sex marriages have higher divorce risk than those in opposite-sex marriages though the differences have declined over time. There is thus some evidence of a convergence of the dynamics in same-sex and opposite-sex marriages.

Figure 6: Relative risks of divorce in Sweden, by calendar year and type of marriage, 1995-2012. Risks relative to that of men in same-sex marriages in 2002. Risks are standardized for duration of marriage, age group, and parity.



Note: The comparison is based on marriages formed during 1995-2012

Source: Swedish register data, authors' own calculations

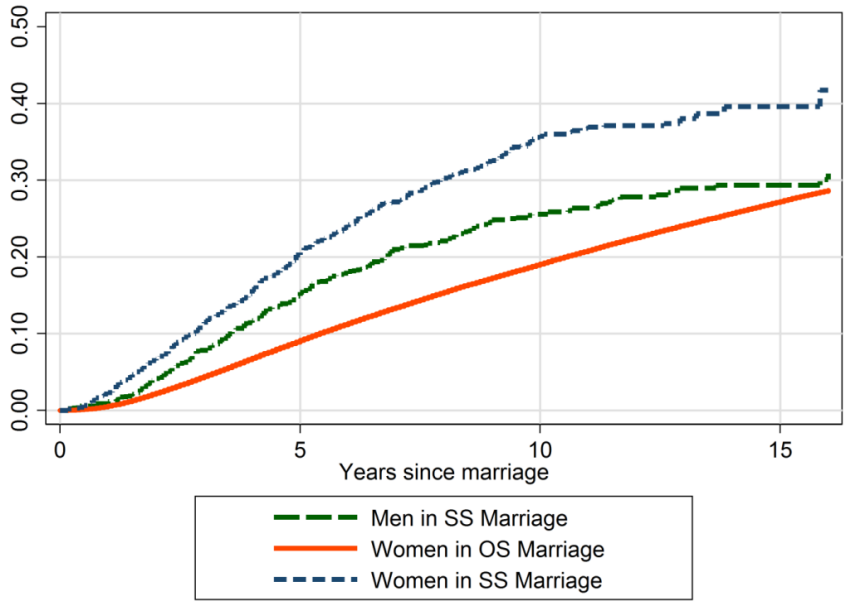
There are substantive differences in the divorce risks of women and men in same-sex marriages. In the late 1990s and early 2000s women had very high divorce risks (cf. Andersson et al. 2006), much higher than for men in same-sex marriages and for people in opposite-sex marriages. These differences have declined somewhat over time, but female same-sex marriages still more often end in divorce than male same-sex and opposite-sex marriages. The divorce risk for men in same-sex marriages have declined over time and approached the divorce risk of women and men in opposite-sex marriages in the early 2010s. There is no evidence of any major change in divorce risks after the introduction of formal same-sex marriage legislation in 2009, though our short follow-up period makes such changes hard to identify. We note that the divorce risks in opposite-sex marriages were largely stable during our study period (cf. Andersson & Kolk 2015). The full results for the models in Figure 6 is available in Appendix Table A2.

In Figure 7 we graph the cumulative incidence of divorce for women and men in same-sex marriages as compared to people in opposite-sex marriages. Unlike our event history models

these models do not standardize for any further demographic variables (such as age, calendar period, and parity). Overall the results largely confirm the picture from our previous analyses. The tendency to divorce is highest among same-sex married women, followed by same-sex married men and opposite-sex marriages. Same-sex marriages seem to be particularly unstable at very brief periods after marriage formation, as compared to opposite-sex marriages. After 15 years of follow-up approximately 30% of male same-sex marriages and opposite-sex marriages have ended in divorce, while 40% of female same-sex marriages ended the same way.

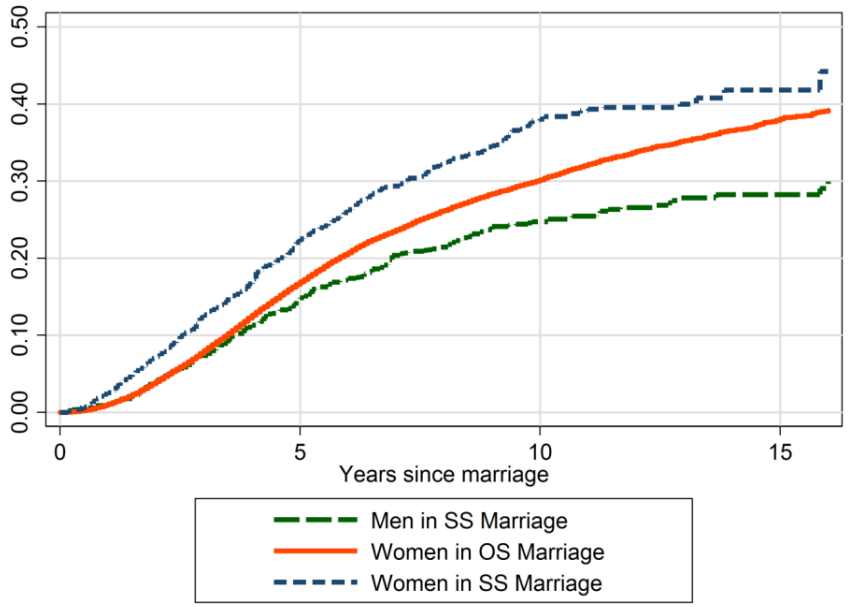
In Figure 8 we provide further insight by examining marital trajectories by the presence of children in the marriages we study. We present the cumulative incidence of divorce for men and women who are childless, using a life table approach where we censor individuals who have their first birth. These results show that while the pattern for same-sex marriages change relatively little as compared to patterns presented in Figure 7 (childbearing is less common in these marriages), the childless opposite-sex marriages are under significantly higher risk of divorce in Figure 8 than when all marriages are covered in Figure 7, which is a well-known demographic phenomenon (Andersson 1997). Among childless marriages, same-sex marriages of men have the lowest probability to end in divorce. Female childless same-sex marriages show similar proportions still married at a duration of 15 years since marriage formation as opposite-sex marriages, but somewhat higher cumulative divorce proportions shortly after marriage.

Figure 8: Cumulative proportion divorced, by type of marriage in Sweden, 1995-2012.



Source: Swedish register data, authors' own calculations

Figure 9: Cumulative proportion divorced, by type of marriage in Sweden, 1995-2012. Marriages of childless women or men, with censoring at entry into parenthood.



Source: Swedish register data, authors' own calculations

Discussion

Overall our study shows that important changes took place in same-sex marriage and divorce in Sweden from 1995 to 2012. There is a continuous increase in prevalence of same-sex marriage over time albeit from a low level, in particular for female same-sex marriage. In the last years of our study, it appears that this increase has leveled off. It will remain to be seen if this is a sign that the initial effects of new partnership and marriage legislation will wane and other underlying demographic factors instead predict more gradual changes over time. If this is the case, this can be interpreted as a demographic convergence of opposite-sex and same-sex marriage trends. We note that an increase in all three types of rates of marriages starting in 1999 (cf. Andersson and Kolk 2015), and that trends in opposite-sex marriage formation has also leveled off in more recent years, suggesting a positive correlation of same-sex and opposite-sex marriage trends.

We note that the entry of new same-sex marriages did not change after the introduction of formal same-sex marriage in 2009, replacing the registered partnership. The weak effect of formal same-sex legislation suggests that when underlying legal differences between registered partnerships and formal marriage are minor (Andersson and Noack 2010), "symbolic" changes in labeling appear to be less important for individual decisions of women and men in Sweden to marry. This situation may be very different from that in, for example, the US.

The trends for Sweden, with an initial majority of male same-sex marriages compared to female same-sex marriages, followed by a gradual increase and eventual cross-over, is largely consistent with trends for many, but not all, other countries (Andersson et al. 2006; Chamie and Mirkin 2011; Ross, Gask, and Berrington 2011; Cortina et al. 2012). The very large differentials observed at the end of the study period has to our knowledge not been found elsewhere, though state-level US statistics also suggest a similar overrepresentation of female same-sex marriages (Chamie and Mirkin 2011). This difference is arguably related to another aspect related to marriage, that of parental rights.

One recent phenomenon which deservers future attention in research is the increasing prevalence of childbearing in same-sex marriages (Wiik et al. 2014; Aldén et al. 2015). This trend has been particularly pronounced for women as can be seen in our results where almost 50% of all new female same-sex marriages in 2008 were followed by childbearing by at least one partner. Our

study suggests that after recent policy changes in Sweden in relation to parental rights marriage may have gained institutional importance for women in same-sex unions in particular, as a mean to assure parental rights for both partners in a union. As such, the legal status may matter more than for women and men in opposite-sex unions, as parental rights in the Swedish context otherwise is only weakly related to legal marriage. Further, the increasing prevalence of children in female same-sex marriages might imply that the demography of male and female same-sex unions might continue to look very different also in future years to come.

In terms of methods, we have demonstrated the importance of using rates and life table techniques in order to properly study changes in levels of marriage formation and divorce over time. A multivariate approach is of particular importance when contrasting opposite-sex marriages, female same-sex marriages, and male same-sex marriages due to the very different age profiles at ages at marriage for the three types of marriages (cf. Figure A7).

Our results for divorce risks in same-sex marriages also show a few changes over time. There is some evidence of a convergence of divorce risks in opposite- and same-sex marriages over time. This is particularly pronounced for male same-sex marriages, which show divorce risks that are entirely similar to those of opposite-sex marriages at the end of the period. The elevated divorce risks among same-sex marriages reported for Sweden in the 1990s (Andersson et al. 2006) appear to have been stronger than for more recent years. For childless marriages, the differences between opposite- and same-sex marriages are even smaller, but male same-sex marriages show substantively lower dissolution rates than childless opposite-sex marriages.

We note that the increase in prevalence of same-sex marriage over time seems not to be associated with any increase in the divorce risks in such marriages. Thus, there is no evidence that the increasing prevalence of sex marriages is associated with a stronger selection of less stable or motivated couples into marriage. Instead, the normalization of same-sex marriage in Sweden seems to have made the demographic behavior of same-sex couples increasingly resemble those of their heterosexual peers.

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A**ppendices**

Table A1: Event history model on risk of first same-sex marriage, men and women, including interaction with period and sex

	Relative risks	95% C. I.	
Period - Same-sex men			
1995	1.54	1.23	1.94
1996	0.65	0.49	0.85
1997	0.63	0.48	0.83
1998	0.59	0.44	0.79
1999	0.72	0.54	0.94
2000	0.94	0.72	1.22
2001	0.85	0.65	1.11
2002	1		
2003	1.12	0.86	1.44
2004	1.48	1.16	1.88
2005	1.21	0.93	1.56
2006	1.45	1.13	1.86
2007	1.30	1.00	1.68
2008	1.46	1.13	1.87
2009	1.68	1.32	2.15
2010	2.27	1.80	2.85
2011	2.13	1.69	2.69
2012	1.95	1.53	2.47
Period - Same-sex women			
1995	0.76	0.58	0.99
1996	0.55	0.41	0.73
1997	0.62	0.46	0.82
1998	0.56	0.41	0.75
1999	0.76	0.58	1.01
2000	0.95	0.72	1.23
2001	1.36	1.06	1.74
2002	1.34	1.04	1.73
2003	2.02	1.60	2.55
2004	2.34	1.86	2.95
2005	2.96	2.37	3.71

2006	3.58	2.88	4.46
2007	3.65	2.93	4.55
2008	5.08	4.11	6.28
2009	5.75	4.67	7.10
2010	6.74	5.48	8.29
2011	7.99	6.51	9.80
2012	7.36	5.99	9.05
Parity			
0	1		
1	0.17	0.15	0.20
2	0.05	0.05	0.06
3+	0.05	0.04	0.06
Age			
16-18	0.02	0.01	0.03
19-21	0.11	0.09	0.14
22-24	0.44	0.39	0.51
25-27	1		
28-30	1.79	1.62	1.99
31-33	2.52	2.28	2.78
34-36	2.64	2.38	2.92
37-39	2.24	2.02	2.49
40-42	1.59	1.43	1.77
43-44	1.15	1.03	1.29
45+	0.69	0.61	0.77
Previous opposite-sex marriage			
No	1		
Yes	0.38	0.35	0.42

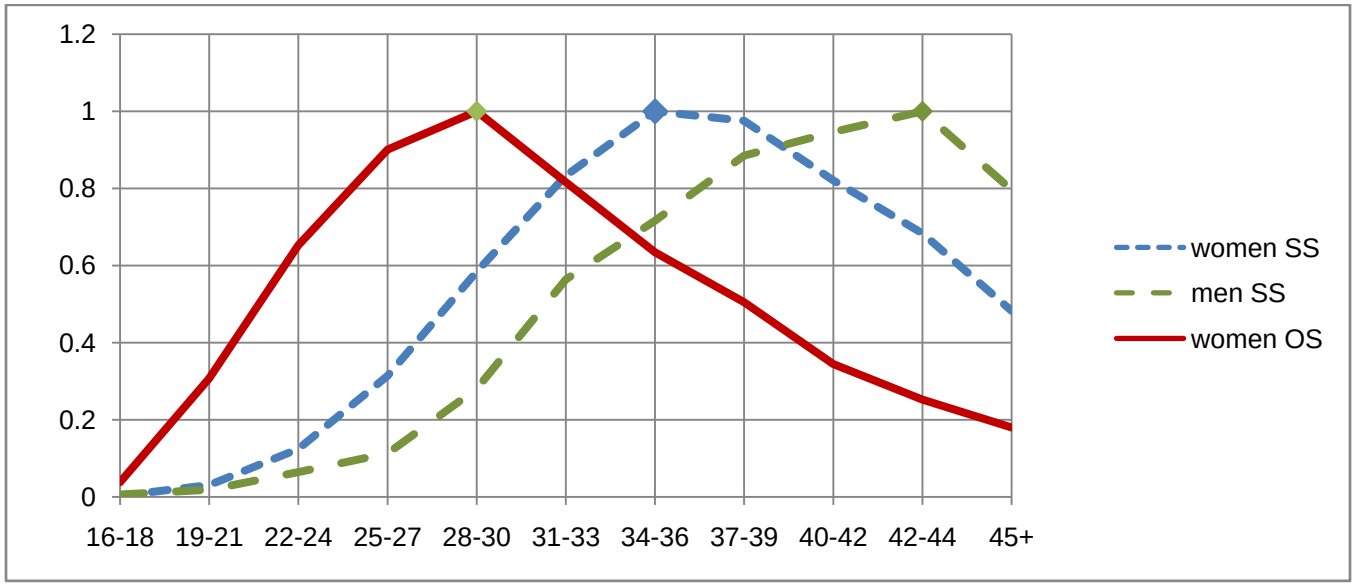
Table A2: Event history model on risk of divorce in first marriages, men and women in same-sex unions, and women in opposite-sex marriage, including interaction with period and sex

	Relative risks	95% C. I.	
Period - Same-sex men			
1995	0.00	0	.
1996	0.00	0	.
1997	0.00	0	.
1998	1.91	1.04	3.51
1999	1.06	0.55	2.05
2000	0.94	0.49	1.79
2001	0.92	0.49	1.72

2002	1		
2003	1.34	0.78	2.30
2004	0.94	0.53	1.66
2005	0.90	0.51	1.57
2006	1.47	0.89	2.44
2007	0.71	0.40	1.25
2008	0.76	0.44	1.33
2009	0.70	0.40	1.22
2010	0.55	0.31	0.98
2011	0.72	0.42	1.24
2012	0.59	0.33	1.03
Period - Same-sex women			
1995	0.00	0	.
1996	0.00	0	.
1997	0.00	0	.
1998	1.52	0.70	3.31
1999	1.69	0.88	3.25
2000	2.85	1.67	4.87
2001	2.56	1.52	4.31
2002	1.32	0.75	2.34
2003	0.99	0.55	1.76
2004	1.04	0.60	1.80
2005	1.21	0.72	2.02
2006	1.28	0.78	2.10
2007	1.20	0.73	1.96
2008	0.97	0.59	1.58
2009	0.99	0.61	1.61
2010	1.30	0.82	2.07
2011	1.41	0.89	2.22
2012	1.10	0.69	1.74
Period - Opposite-sex women			
1995	0.23	0.13	0.41
1996	0.51	0.33	0.79
1997	0.63	0.41	0.96
1998	0.63	0.41	0.95
1999	0.68	0.45	1.04
2000	0.73	0.48	1.11
2001	0.72	0.48	1.10
2002	0.74	0.49	1.12
2003	0.72	0.47	1.09
2004	0.69	0.45	1.04
2005	0.67	0.44	1.03
2006	0.69	0.46	1.06

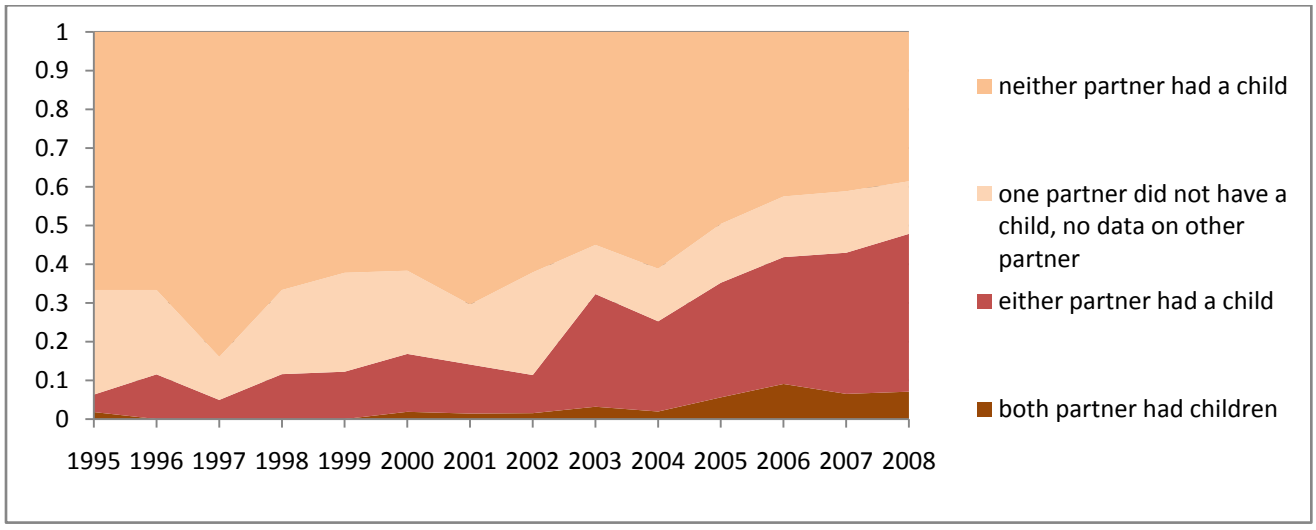
	2007	0.69	0.45	1.05
	2008	0.71	0.47	1.08
	2009	0.73	0.48	1.10
	2010	0.76	0.50	1.16
	2011	0.74	0.49	1.13
	2012	0.73	0.48	1.11
Parity				
	0	1		
	1	0.40	0.39	0.41
	2	0.41	0.49	9.42
	3+	0.47	0.45	0.48
Age				
	16-18	4.40	3.22	6.02
	19-21	2.74	2.56	2.92
	22-24	1.65	1.58	1.72
	25-27	1		
	28-30	0.66	0.64	0.68
	31-33	0.49	0.47	0.50
	34-36	0.40	0.39	0.42
	37-39	0.35	0.34	0.37
	40-42	0.31	0.30	0.32
	43-44	0.27	0.26	0.29
	45+	0.23	0.22	0.24
Duration of marriage				
	0-1 year	0.11	0.11	0.12
	1-2 years	0.46	0.44	0.47
	2-3 years	0.76	0.74	0.79
	3-4 years	1		
	5-6 years	1.23	1.19	1.26
	7 -10 years	1.45	1.40	1.49
	11-15 years	1.61	1.55	1.67

Figure A7: Relative risks of first marriage formation in Sweden, by age group, 1995-2012. Separate models for same-sex and opposite-sex marriage formation. Risks are given relative to that of the age group with the highest marriage intensity. Risks are standardized for calendar year, parity, and the experience of any previous opposite-sex marriage (for same-sex marriages).



Source: Swedish register data, authors' own calculations

Figure A8: Proportion of same-sex marriages of women entered between 1995 and 2008, by childbearing experience within five years from marriage formation.



Source: Swedish register data, authors' own calculations. In order for a woman to be included as an index person she has to be Swedish-born and younger than 50. Women in Figure A8 with missing data have a partner, which does not fulfill those criteria. "Either partner had a child" also include women with a child with no information about the partner's child status.