

Early Labor Market Outcomes of Young Adults from Same-Sex Families: Evidence from Population Data

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Abstract

Although most studies suggest that children from same-sex families perform at least as well as children from different-sex families in childhood or adolescence, data limitations have prevented investigation of how children from same-sex families perform in adulthood. Using Dutch longitudinal tax registers, we offer the first population-based evidence on how young adults from same-sex families fare when entering the labor market after high school. We observe 239,313 young adults who have not enrolled in higher education, of which 605 are from same-sex families. Our results suggest that young adults who lived in a same-sex family perform just as well early on the labor market as young adults from different-sex families. However, we also find considerable differences by the time spent in a same-sex family. Young adults raised by same-sex parents from birth are more employed in part-time occupations and more often choose industries dominated by the opposite sex.

Keywords— Administrative longitudinal data, same-sex families, labor market outcomes, coefficient stability test, coarsened exact matching

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1 Introduction

Whether same-sex couples should be granted equal parenting rights as different-sex couples is a debated topic in many countries. In the US, despite the legalization of same-sex marriage in 2015 (U.S. Supreme Court case *Obergefell v. Hodges* 2015), same-sex couples still experience considerable discrimination in parenting. For instance, private foster care agencies refused to work with same-sex couples in Pennsylvania (*Fulton v. City of Philadelphia* 2020), and lesbian married couples were denied motherhood on the child birth's certificate in Indiana (*Box v. Henderson* 2020). Uneven support for same-sex couples' parenting rights also occurs in the European Union, where eight countries do not allow same-sex couples to adopt children, and one country – Hungary – recently introduced a constitutional ban on adoptions by same-sex couples (ILGA Europe 2021). Opponents of same-sex parenting claim that children raised in same-sex families experience substantial hardships during childhood that translate to adverse outcomes in adulthood. However, most studies using either nationally representative census data or administrative population data indicate that children from same-sex families perform at least as well as children from different-sex families on a range of psychological, health and school outcomes (Aldén, Bjorklund, and Hammarstedt 2017; Boertien and Bernardi 2019; Cenegy, Denney, and Kimbro 2018; Mazrekaj, De Witte, and Cabus 2020; Reczek et al. 2017; Rosenfeld 2010; Watkins 2018). Despite the considerable evidence about how children from same-sex families perform during their childhood or adolescent years, however, few studies have been able to collect data about how children from same-sex families perform in adulthood.

In this paper, we investigate how young adults who have lived in a same-sex family in their childhood perform on the labor market shortly after they leave high school. Early labor market outcomes are particularly important as young adults are conventionally considered a vulnerable population that is more exposed to difficulties on the labor market (Caliendo and Schmidl 2016). For instance, in the EU, the unemployment rate in 2021 was more than twice as large among workers aged 15-24 years old (amounting to 16.6%) than for the full population of workers aged

15-75 years old (amounting to 7.0%) (Eurostat 2022). Previous research has shown that poor experience early on is likely to have scarring effects on mental health and psychological well-being (McKee-Ryan et al. 2005; Korpi 1997). In turn, this may negatively affect subsequent labor market performance, leading to lower future wages and a higher probability of long-term unemployment (Gregg and Tominey 2005; Nordstrom Skans 2011). Given that compensatory policy measures are still possible for workers of young age, examining the labor market outcomes of young adults from same-sex families at especially this age can be key to designing policies that facilitate their transition into the labor market.

To the best of our knowledge, only Regnerus (2012) has included labor market information in his comparison of children from same-sex and different-sex families on 40 outcomes using The New Family Structures Study (NFSS) survey. He found that, in the US, children from same-sex families were less full-time employed and more unemployed than children who lived in an intact biological family until the age of 18. However, self-reported information – prone to misreporting and recall bias – spreads doubt on these findings (Cheng and Powell 2015; Rosenfeld 2015; Perrin, Cohen, and Caren 2013). Cheng and Powell (2015) showed that half of the children from same-sex families never lived with the partner of the same-sex parent, and one tenth never lived with the same-sex parents themselves. Only 51 of the 236 adult children originally included in the sample could be confidently defined as raised for at least one year in a same-sex family. Once the analyses were performed on the newly defined sample, Cheng and Powell (2015) found no significant difference in labor market performance between children from same-sex and different-sex families. Nonetheless, this small number of only 51 children casts doubt on whether the results found in these studies can be generalized to the population of children from same-sex families.

This paper contributes to the literature by analyzing a range of early labor market outcomes (namely annual earnings, hourly wages, employment, full-time employment and industry choices) using a population dataset of young adults who lived in a same-sex family in their childhood. We use unique administrative longitudinal data from the Netherlands, in which we observe the entire population of children born between 1995 and 1999, which we follow until 2020. We focus on

young adults who have not enrolled in higher education after high school, and observe their labor market outcomes at age 21. We identify 605 young adults who lived in a same-sex family in childhood (558 in female same-sex families and 47 in male same-sex families), of which 112 are born in a same-sex family. Unlike the small self-reported sample used in Regnerus (2012), our data allow us to look at the population of children from same-sex families while observing labor market information in the tax registers. Moreover, the Netherlands is a particularly interesting country to study because of the extensive support – cultural and legal – it provides to the LGBTQ+ community. In fact, the Netherlands was among the first countries to recognize registered partnerships for same-sex couples in 1998, and the first country to legalize same-sex marriage in 2001.

As we consider the labor market performance of young workers who have not enrolled in higher education, it is important to already reflect on how we test for the non-random composition of our sample. First, we compare young adults from same-sex families to young adults from different-sex families on the likelihood of enrolling into higher education, finding no significant differences between the two groups. Second, we also study older birth cohorts for which we can observe labor market outcomes after graduating from tertiary education, finding similar results as for the main sample. Both analyses confirm the external validity of the findings towards other cohorts. The lack of significant differences in the probability of enrolling into higher education suggests no selection in the composition of our sample, while the analysis on the earliest birth cohorts suggests that our results are valid for both older ages and for young adults who worked immediately after graduating from tertiary education.

Our results suggest that young adults from same-sex families earn just as much and are just as likely to be (full-time) employed as young adults from different-sex families. However, these results hide considerable heterogeneity by the time spent in same-sex families. Young adults born in same-sex families (and who spent their entire childhood in a same-sex family) tend to earn less than young adults from different-sex families. These differences occur in part because young adults born in same-sex families are more likely to work part-time. Additionally, they are also more likely to be employed in nontraditional industries (i.e. industries dominated by the opposite

sex). This finding is driven by boys born in same-sex families who are predominantly employed in nontraditional industries – traditionally less profitable than male-dominated industries. Our data reject other explanations as predicted by the sex identity theory, discrimination theory, human capital/signalling theory, and family formation theory. We also reject the hypotheses that young adults born in same-sex families follow their mothers’ industry choices, lack complementary role models, or lack human capital and are less capable than young adults from different-sex families. Our results are robust to data pre-processing by using Coarsened Exact Matching, and to the inclusion of omitted variable bias by means of a coefficient stability test by Oster (2019).

2 Background

2.1 Earlier research and methodological challenges

The prevailing view in the social science literature is that children from same-sex families perform at least as well as children from different-sex families on a range of psychological, health, and school outcomes (for reviews of earlier studies, see Allen 2013, Manning, Fetto, and Lamidi 2014, Marks 2012). However, earlier research suffered from two important limitations (Manning, Fetto, and Lamidi 2014). First, data on same-sex families was often collected through convenience or snowball sampling. As a result, these studies analyzed same-sex parents – mostly white, wealthy and well-educated lesbian parents – who were not representative of the general population. Second, earlier research often relied on samples that were too small to detect statistically significant differences for correct inference.

To overcome these methodological issues, a growing literature has used nationally representative census data (Allen 2013; Allen, Pakaluk, and Price 2013; Boertien and Bernardi 2019; Cenegy, Denney, and Kimbro 2018; Reczek et al. 2017; Rosenfeld 2010; Sullins 2015; Watkins 2018) or administrative data (Aldén, Bjorklund, and Hammarstedt 2017; Kabátek and Perales 2021; Mazrekaj, De Witte, and Cabus 2020) to offer population-based evidence of children’s performance in same-

sex families. With few exceptions (see Allen 2013; Allen, Pakaluk, and Price 2013; Sullins 2015), findings from these studies support the hypothesis that children from same-sex families do not experience significant disadvantages relative to children from different-sex families. Children from same-sex families are found to progress through school at the same pace as children from different-sex families (Bernardi, Boertien, and Geven 2019; Rosenfeld 2010; Watkins 2018), to outperform the latter on test scores in primary education, and are more likely to graduate from high school (Mazrekaj, De Witte, and Cabus 2020; Kabátek and Perales 2021). Children from same-sex families also appear to be equally healthy as children from different-sex families (Cenegy, Denney, and Kimbro 2018; Reczek et al. 2017), have similar behavior problems (Reczek et al. 2017), and may even have a lower probability of developing respiratory diseases when raised by female same-sex parents than children from different-sex families (Aldén, Bjorklund, and Hammarstedt 2017). Note that Reczek et al. (2017) and Sullins (2015) find that children from same-sex families experience somewhat higher rates of emotional difficulties relative to children from different-sex families. However, Reczek et al. (2017) speculate that this difference might be driven by the stress caused by social and institutional discrimination, or by higher adoption rates among same-sex couples relative to different-sex couples. Given the high support enjoyed by the LGBT community in the Netherlands, and the low proportion of children adopted by same-sex couples in our sample (only 4), we do not expect this outcome to play a major role in our context.

Nevertheless, earlier research has mainly focused on children's performance in childhood or adolescence. This is because obtaining data on adult performance of children from same-sex families is exceptionally challenging. First, the researcher needs to have enough information to distinguish same-sex families from different-sex families. Second, the data need to cover a sufficiently large period into the future to identify children's adult performance. Finally, the number of observed children from same-sex families must be sufficiently high to produce representative and generalizable findings. Fulfilling these data conditions is especially problematic given that most countries have legally recognized same-sex families as a family structure only in recent years.

Our administrative population data allow us to overcome these issues. Particularly, they in-

clude a rich set of labor market outcomes that are measured until 2020. Given that we can reconstruct the family structure of young adults born since 1995, this long time span allows us to observe birth cohorts that are old enough to earn the adult Dutch minimum wage (i.e. age 21 years old or older). Further, our data allow us to observe the entire population of the Netherlands, a country where registered partnerships for same-sex couples have been legal for more than two decades. As such, our study paper provides first evidence using population data on how young adults from same-sex families perform on the labor market.

As a final note, we should emphasize that comparing same-sex to different-sex families implicitly ascribes to different-sex families the role of normative family type (Stacey and Biblarz 2001). This means that any deviation from different-sex families might implicitly be conceptualized as negative or deficient. While we acknowledge that enforcing such comparison may contribute to reproducing the heteronormativity of different-sex families relative to same-sex families, we also note that it allows to discuss the aspects by which children in same-sex families are somehow expected to be different than children in different-sex families according to heteronormative beliefs.

3 Theoretical mechanisms

Various theories from sociology, psychology and economics predict that young adults from same-sex families are likely to perform either better or worse than young adults from different-sex families on the labor market.¹ These theories are based on internal aspects that commonly characterize same-sex families (i.e. an egalitarian division of household labor among same-sex parents, a non-conforming behavior of children to sex stereotypes, a small family size, and a high human capital), or on external aspects that might affect young adults' labor market performance (such as discrimination on the labor market). Table 1 below provides an overview of the theoretical mechanisms

1. Note that the sex-identity theory, the family formation theory, and the sector-selection theory discussed in this section are named by the authors.

discussed in this section and the (positive or negative) relationship they predict between having lived in same-sex families and labor market outcomes.

< TABLE 1 HERE >

Young adults from same-sex families may perform better than young adults from different-sex families on the labor market because they are likely to grow up in an environment in which gender roles and sex stereotypes are less pronounced (*sex identity theory*). In a review of the literature, Stacey and Biblarz (2001) showed that, unlike in different-sex families, girls and boys in same-sex families frequently play and behave in ways that do not conform to cultural gender norms. Instead, they tend to develop greater interests in more gender-neutral activities. Sex stereotypes have been shown to produce differences in adults' self-confidence, with women generally having lower confidence in their own abilities than men (Bordalo et al. 2019). In turn, distorted perceptions of own abilities affect wages and contribute to the gender pay gap, as overconfident men will earn more than underconfident women, all else equal (Santos-Pinto 2012). Given that young adults from same-sex families are less exposed to sex stereotypes during childhood, the sex identity theory predicts reduced wage differentials between female and male young adults from same-sex families relative to wage differentials between female and male young adults from different-sex families. These reduced wage differentials stem from higher performance of females rather than from a lower performance of males. Consequently, overall earnings of young adults from same-sex families would be higher than the earnings of young adults from different-sex families. Given these implications of the sex identity theory, we will analyze earnings separately for females and males from same-sex families. If the difference in earnings is significantly higher when comparing females from same-sex families to females from different-sex families, than when comparing males from same-sex families to males from different-sex families, this would suggest that the sex identity theory holds.

Young adults from same-sex families may also perform better than young adults from different-sex families on the labor market as a result of the way same-sex couples have children (*family*

formation theory). Given that the procedures to obtain children for same-sex couples such as adoption, artificial insemination and surrogacy are time-consuming and expensive, the decision to conceive a child may not be as spontaneous for same-sex couples as it may be for different-sex couples. As a result, same-sex families are likely to be of smaller size than different-sex families (Black, Sanders, and Taylor 2007). This is true also in the Netherlands, where children from same-sex families have significantly fewer siblings than children from different-sex families (Mazrekaj, De Witte, and Cabus 2020). The relationship between family size and young adults' outcomes is mostly shown to be negative by earlier literature. According to the resource dilution theory, parental resources are finite and the proportion of such resources that can be devoted to every child decreases as the number of children increases (Downey 2001; Cáceres-Delpiano 2006), leading to a negative correlation between family size and children's outcomes including, among the others, labor market outcomes (Lampi and Nordblom 2012). Nevertheless, some studies find that birth order is more important than the number of siblings in determining young adults' outcomes. For example, Black, Devereux, and Salvanes (2005) showed that controlling for birth order makes family size effects negligible, and that young adults with higher birth order tend to earn less and be less full-time employed in adulthood than young adults with lower birth order. Either way, the family formation theory combines the two approaches and predicts that young adults from same-sex families perform better on the labor market than young adults from different-sex families (e.g. by having higher earnings, being more employed or more full-time employed). We hypothesize that the anticipated positive labor market performance is mediated by the higher likelihood of young adults from same-sex families to have lived in smaller families and to be early in the birth order relative to young adults from different-sex families.

A final mechanism by which young adults from same-sex families can be expected to perform better than young adults from different-sex families is related to their school performance. Previous literature has found that children from same-sex families obtain higher test scores in primary education (Aldén, Bjorklund, and Hammarstedt 2017; Mazrekaj, De Witte, and Cabus 2020; Kabátek and Perales 2021), and are just as likely to progress through school as children from different-sex

families (Boertien and Bernardi 2019; Rosenfeld 2010; Watkins 2018). It is well documented that higher schooling leads to better performance on the labor market (Oreopoulos and Salvanes 2011), either as a result of a higher human capital (Becker 1993) (*human capital theory*) or as a result of signalling (Spence 1973) (*signalling theory*). Therefore, according to human capital/signalling theory, young adults from same-sex families would perform better on the labor market than their peers from different-sex families as a direct consequence of their high school performance. Thus, we hypothesize that the anticipated positive relationship between having lived in a same-sex family and labor market outcomes is mediated by their good high school performance.

Although the aforementioned theories suggest that young adults from same-sex families should perform at least as well, and likely better, than young adults from different-sex families on the labor market, the discrimination and the sector-selection theory provide a contrasting view. The discrimination theory posits that same-sex parents experience substantial prejudice due to their sexual orientation (Stacey and Biblarz 2001). The discrimination of same-sex parents on the workplace may weaken their possibility to construct family networks on the labor market, which are shown to be relevant for young workers (Kramarz and Skans 2007; Corak and Piraino 2011).² The social stigma same-sex parents are exposed to may also directly be reflected upon their children. Employers who are against same-sex parenting may discriminate against a job applicant if they are aware that the job applicant has same-sex parents. Moreover, it is a common belief among straight individuals that young adults from same-sex families are more likely to be in a same-sex relationship than young adults from different-sex families (Gato and Fontaine 2013; Savin-Williams and Ream 2003), and recent research on the topic confirms this belief to be true (Gartrell, Bos, and Koh 2019). Thus, young adults from same-sex families may be subjected to an additional source of discrimination on the labor market, this time due to their own sexual orientation. We might expect these mechanisms to be particularly strong in rural and small communities, where personal information on sexual orientation and family composition can easily circulate by word of mouth.

2. For instance, young workers are found to frequently work in factories where their parents are also employed or to work with employers for which their parent(s) also worked (Kramarz and Skans 2007; Corak and Piraino 2011).

Therefore, a testable implication of the discrimination theory is that young adults from same-sex families would perform worse on the labor market (e.g. by earning lower wages, being less employed or less full-time employed) in rural communities rather than in urban cities compared to young adults from different-sex families. Nevertheless, we should emphasize that this study is situated in the Netherlands, the first country to have legalized same-sex marriage in 2001, and where the LGBT community enjoys an extensive legal and cultural support. For example, a survey conducted in 2019 revealed that 97% of the Dutch population agreed that gay, lesbian and bisexual individuals should enjoy the same rights as heterosexual individuals, and 92% believed that same-sex marriage should be allowed throughout Europe (Eurobarometer 2019). Thus, we do not expect that the discrimination theory will constitute a major mechanism affecting the performance of young adults from same-sex families on the labor market.

An important alternative mechanism that predicts nontraditional industry choices on the labor market of young adults from same-sex families relative to young adults from different-sex families is the *sector-selection theory*. As previously discussed, young adults from same-sex families are less exposed to sex stereotypes while growing up (Stacey and Biblarz 2001). Moreover, earlier literature has shown that same-sex parents are likely to share paid and unpaid work (e.g. housework and childcare) equally between each other, both in female and male same-sex families (Fulcher, Sutfin, and Patterson 2008; Biblarz and Stacey 2010; Brewster 2017). By contrast, parents in different-sex families are likely to unevenly divide these commitments (Cotter, Hermsen, and Van neman 2011). Although the differences have become less pronounced throughout the years, the mother figure is still more involved with domestic work and childcare than the father figure, who is instead more invested in paid work (Dribe and Stanfors 2009). These features are also true in the Netherlands, where a traditional gendered division of labor is still commonly supported (Poortman and Van Der Lippe 2009), most women only work part-time (OECD 2019), and same-sex couples divide the time they spend on paid work more equally than different-sex couples (Jaspers and Verbakel 2013). Earlier research has found that an egalitarian parental division of household labor and liberal parental attitudes on gender roles are correlated with nontraditional occupational

preferences of children (Fulcher, Sutfin, and Patterson 2008; Fulcher 2011; only within the sample of daughters in Croft et al. 2014).³ Not conforming to sex-typed cultural norms in childhood and having parents with paid employments who equally share household tasks, we hypothesize that young adults from same-sex families may be more likely employed in nontraditional industries, that is, industries that are atypical from their sex. In practice, this means that boys from same-sex families might be more likely employed in what are traditionally considered as female-dominated industries while girls from same-sex families might be more likely employed in male-dominated industries. Earlier research showed that wage levels are considerably lower in jobs that are mostly occupied by females, while higher in jobs that are predominantly occupied by males (Cohen and Huffman 2003; Macpherson and Hirsch 1995). Therefore, according to this theory the differences in wage levels between boys and girls from same-sex families are theoretically ambiguous, as young adults from same-sex families might earn lower or higher wages than young adults from different-sex families depending on whether boys and girls from same-sex families are influenced differently by the mechanism behind the sector-selection theory.

In sum, the sex identity theory, the birth order theory, and the human capital/signalling theory suggest that young adults from same-sex families will perform at least as well as young adults from different-sex families on the labor market. On the other hand, the discrimination theory predicts a lower labor market performance of young adults from same-sex families. Finally, the sector-selection theory predicts no difference in wage levels but a discrepancy in industry choices between young adults from same-sex and different-sex families. Ultimately, it is an empirical question as to which of these mechanisms dominates. Alternatively, these countervailing mechanisms may offset each other, leading to no differences in labor market performance between young adults from same-sex and children in different-sex families. Note, however, that we do not expect every mechanism to affect all outcome variables.

3. Note that, while also Fulcher, Sutfin, and Patterson (2008) relate parental sexual orientation to children's occupational preferences, their analysis suffers from important limitations such as the use of a small convenience sample—their sample of lesbian families consists of only 33 observations. Moreover, Fulcher, Sutfin, and Patterson (2008) observe the occupational aspirations of children aged 4-6 years old, but do not observe their occupational choices in adulthood.

4 Data

4.1 Sample construction

We use administrative data collected by Statistics Netherlands that cover the entire Dutch population annually from 1995 to 2020. Each Dutch resident is associated with a unique identifier with which we retrieve demographic characteristics, parental identifiers, address and spousal information. This allows us to reconstruct households and family structure. Specifically, each child is associated to a mother (either female or male) and a father (either male or female) through an identifier. Moreover, every individual is associated to their address of residence, which is annually updated. As we observe the address where every individual lives year by year, we can identify households as the set of individuals sharing the same address in a particular year. Further, we observe identifiers for each individual's partner. We have information on whether two individuals are married, in a registered partnership or are cohabiting. The latter category includes partners who live together and have signed a written agreement of cohabitation, or are registered as tax partners in the Dutch Tax and Customs Administration. We can also distinguish whether children have lived with their biological parents during childhood, with a parent and a stepparent, or with a single parent.⁴ Finally, by matching parental and partner identifiers with sex, we are able to distinguish whether and how long the child has resided in a same-sex or a different-sex family during childhood.

To study labor market outcomes of young adults who lived in a same-sex family in childhood, we restrict the sample as follows. First, consistent with most of recent literature (Aldén, Bjorklund, and Hammarstedt 2017; Boertien and Bernardi 2019; Mazrekaj, De Witte, and Cabus 2020; Reczek et al. 2016; Watkins 2018), we only study young adults raised by couples as our adminis-

4. Note that two partners might be married or in a registered partnership but live (temporarily) at two separate addresses, for instance if for work reasons they officially reside in different cities. This concerns a small percentage of families in our sample, both for same-sex and different-sex families (around 3% of different-sex families and 3% of same-sex families). Therefore, in our study we consider partners having a formal relationship but living at different addresses as part of the same household.

trative data do not have a measure of sexual orientation.⁵⁶ Second, we restrict the sample to birth cohorts that are old enough to be entitled to the (adult) statutory minimum wage, that applies in the Netherlands to all employees aged 21 or more. Further, as our panel ends in 2020, we only consider labor market outcomes of young adults aged 21. As such, we study labor market outcomes of young adults born between 1995 and 1999, and aged 21 between 2016 and 2020.⁷ Third, we drop observations with missing covariates (17.08 percent of the sample).⁸ Finally, to limit the likelihood that young adults might be involved in student jobs and internships, we exclude individuals who have enrolled in higher education after high school. In practice, this means that our sample mostly includes individuals with a vocational educational background rather than a general educational background (more information on the Dutch educational system is provided in Appendix A in the online supplement). However, we find similar results when we observe labor market outcomes at age 23 and we include young adults who finished higher education at that age (see Appendix A and Table A.2 in the online supplement for more information).⁹ The final sample consists of 239,313 young adults who have never enrolled in higher education before age 21.

4.2 Young adults from same-sex families

As mentioned earlier, our data do not include information on sexual orientation. Rather, we derive whether parents are in a same-sex male or female relationship by the sex of the partner they are

5. Specifically, our data allows to compare same-sex to different-sex couples, while it does not allow to compare sexual minority to non-sexual minority parents. While all persons in same-sex relationships are sexual minorities, not all persons in different-sex relationships are heterosexual/not sexual minorities.

6. Nonetheless, we include young adults who have lived with a single parent up to one year to account for potential bureaucratic delays in the registration of the new relationship status of the parents.

7. To test whether our results are sensitive to the choice of observing labor market outcomes of young adults aged 21, we also perform our analysis on young adults aged 19 and 20 who have not enrolled in higher education (see Table B.9 in the online supplement). Our results are virtually unchanged with respect to our main specification in Table 3.

8. However, our results are robust to imputing missing values using Multiple Imputation by Chained Equations (MICE).

9. We also find similar results when we observe labor market outcomes at age 21 and we include young adults who enrolled in higher education after high school diploma (see Table B.1 in the online supplement).

residing with.¹⁰ Given that we only observe couples, a household in a given year during childhood can consist of young adults who lived with their biological parents, with adoptive parents or with a parent and a stepparent. If we observe that the parents (or the parent and stepparent) the young adult resided with are two men or two women, we conclude that the young adult has lived in a same-sex household in that year. In the analyses, we consider young adults to be from a same-sex family if they have lived for at least one full year in a same-sex family, before turning 16 years old. According to the Dutch law, minors who have reached the age of 16 can request to be emancipated, i.e. to be legally responsible for themselves before they have attained the age of 18. To avoid misclassification because emancipated young adults might no longer live with their parents, we set the age limit at 16 years old.

There are two possible ways young adults may have resided in a same-sex family. On the one hand, they may have entered a same-sex family after having lived part of their childhood with their biological different-sex parents. As such, they necessarily lived through the dissolution of their parents' partnership due to the coming out of one of their parents. On the other hand, they may be born in a planned same-sex family of two male or female same-sex parents (e.g. through fertility treatments or adoption).¹¹

In our sample, we identify 605 young adults from same-sex families, of whom around 20% are born in a same-sex family. More generally, one out of two young adults have lived at least 4 years in a same-sex family. It should be noted that, given the low proportion of adopted children among same-sex couples (only 4 in our sample), we do not further distinguish between adopted and biological children, which we include all together in our analysis. It should also be noted that, in line with earlier administrative data studies (Aldén, Bjorklund, and Hammarstedt 2017; Kabátek and Perales 2021; Mazrekaj, De Witte, and Cabus 2020), most young adults from same-

10. Note that we refrain from attributing sexual identities to families. This means that, for example, we do not label different-sex families as heterosexual families or female same-sex families as lesbian families, since there may be other sexual identities that we do not observe (such as bisexuality).

11. Note that we do not exclude that children born in same-sex families may experience the dissolution of their parents' partnership. However, in our sample, we observe no parental separation among children born in same-sex families.

sex families in our sample are from female same-sex families (558 children), whereas only 47 children are from male same-sex families. This is likely due to three reasons. First, the path to motherhood for female same-sex couples is legally easier than for gay couples. According to Dutch law, the mother who gives birth to the child is the legal mother of the child, regardless of any agreement prior to child's birth. If the biological mother is in a married relationship with another partner, the legal procedures for male same-sex couples to become legal parents of the child become even more complicated. Male same-sex couples first need the legal mother to renounce her legal rights and responsibilities towards the child. Later, they need to become the adopting parents of the child through a complex and time-consuming legal procedure. By contrast, this procedure is easier for female same-sex couples, as one of the two partners is already the legal mother of the child. A second reason why we observe few male same-sex families is related to the late introduction of surrogacy practices for gay couples in the Netherlands, namely in 2019. Finally, child custody following parental divorce is mostly granted to the mother of the child. If the mother was gay, the child would reside with the (lesbian) mother. If the father was gay, the child would still reside with the (heterosexual) mother.

4.3 Variable construction

Outcome variables. We measure labor market outcomes by looking at a range of variables of interest, all measured yearly: log gross earnings in euros, log gross hourly wage in euros, employment, and full-time employment (note that we also look at a fifth outcome variable, namely industry choices, which we discuss further below together with the other measures included in the analysis to test the theoretical mechanisms).¹² We construct log gross earnings by taking the sum of the total amount of earnings that each individual has earned in the reference year. Earnings are computed by summing income from salaried employment and income from self-employment. Next, we take logarithms of this quantity to 'smoothen' the extremes of the distribution and reduce

12. We also estimate our model in terms of log net earnings and log net hourly wage (see Table B.3 in the online supplement). Our results are virtually unchanged with respect to our main specification in Table 3.

its skewness.¹³ Given that individuals observed at a young age may earn different wages due to different number of hours worked, we also look at their hourly wages. To construct this outcome variable, first, we sum the total amount of hours worked by each individual in the reference year. Then, we divide the total amount of earnings from salaried employment obtained by the individual in the reference year by the corresponding number of hours worked. As such, we obtain a measure of how much individuals have earned per hour, i.e. their gross hourly wage. Finally, we take logarithms of this quantity to have a smooth distribution.¹⁴ To construct the third outcome variable, we consider as employed every individual who has earned a positive income from employment in the reference year. By contrast, we consider as unemployed every individual who has not earned a positive income from employment, is not working or is inactive in the reference year. Finally, we consider as full-time employed every individual who has worked more than 1,680 hours in the reference year, which is the equivalent of a full-time job with 35 hours a week. By contrast, we consider as part-time employed every individual who is employed but is working less than 1,680 hours a year.¹⁵

Control variables. As a proxy for the socioeconomic status and/or genetic transmission, we include an indicator for parental educational attainment (1 if both parents have at least completed secondary education, 0 otherwise).¹⁶ We also include a continuous variable for the gross household income, measured when the child is 15 years old.¹⁷ To obtain this, first, we collect the gross

13. However, we also estimate our model in absolute terms. Our results are virtually unchanged with respect to our main (logarithmic) specification.

14. Note that, as we do not have data on the number of hours worked by self-employed persons, we construct the hourly wage only for workers with salaried employment. However, most individuals in our sample (92.85 percent) receive income from salaried employment, whereas only a fraction (7.15 percent) receive income from self-employment.

15. Note that, similarly to the definition of hourly wage, we can construct full-time employment only for workers with salaried employment.

16. Note that we do not use in our main model specification a more refined control variable for parental education due to data limitations. Nevertheless, we conduct a robustness check where we include parental education as a categorical variable (retaining the 65.28 percent of our sample). Our results are robust to this alternative specification (see Table B.8 in the online supplement).

17. Note that, as data on income are available only as of 2010, we have set the age limit at 15 to have a balanced measure of family income across birth cohorts.

annual income of each parent (or step-parent). Next, we obtain the household income by summing the gross annual income of both parents (or stepparents). Finally, we take logarithms to have a smooth distribution. The household socioeconomic status has been shown to strongly correlate with children's early-labor market outcomes (Duncan et al. 1998), and to explain part of the differences between children's performance in same-sex and different-sex families (Rosenfeld 2010; Mazrekaj, De Witte, and Cabus 2020).

We also control for family characteristics. We include a continuous variable for maternal age at birth to account for young adults from same-sex families usually having older parents than young adults from different-sex families (Black, Sanders, and Taylor 2007; Mazrekaj, De Witte, and Cabus 2020). Young adults from same-sex families are also more likely than young adults from different-sex families to have experienced parental separation, mostly because they become part of a same-sex family from a parental prior different-sex relationship (Cenegy, Denney, and Kimbro 2018). To account for family instability, first, we include a variable for the number of family transitions experienced in childhood: either a change in residence or a change in coresident partner by a parent. Second, we account for parental union status at child birth, arranged in three categories: married parents; cohabiting parents; other. The latter category includes married or cohabiting unions of a parent and a step-parent.¹⁸ Family instability is traditionally associated with compromised developmental outcomes in childhood, including higher likelihood of early entry in the labor force (Fomby and Bosick 2013). Together with the socioeconomic status, it often accounts for most of the differences in performance between individuals from same-sex and different-sex families (Gates 2015; Manning, Fetto, and Lamidi 2014).

At the individual level, as labor market outcomes likely differ by sex (Blau and Kahn 2017), we include an indicator for individuals' sex (1 if male, 0 if female). Further, given that migrants

18. Given that most studies on same-sex families distinguish between marriage and cohabitation (Allen 2013; Mazrekaj, De Witte, and Cabus 2020; Reczek et al. 2016; Rosenfeld 2010; Watkins 2018), and that in the Netherlands the registered partnership is perceived as almost identical to marriage (Trandafir 2014), we do not further differentiate between married unions and registered partnerships, which we include altogether in the first category (*married parents*).

might face difficulties on the labor market (McCall 2001; Dustmann, Glitz, and Vogel 2010), we account for individuals' ethnic background by constructing a categorical variable on the basis of parental country of birth. We include four categories: both parents born in the Netherlands; one parent born in the Netherlands, the other in a Western country (e.g. another European country or the United States); one parent born in the Netherlands, the other in a non-Western country; both parents born outside the Netherlands. As such, we account for the lower likelihood of young adults from same-sex families to have both parents of foreign origins relative to young adults from different-sex families (Mazrekaj, De Witte, and Cabus 2020). Finally, we always include in our model specification fixed effects for year of birth, accounting for both observed and unobserved heterogeneity in birth cohorts and the labor market situation (e.g. economic situation). We also always include indicators for individuals' municipality of birth, to account for regional differences and for the higher likelihood of young adults from same-sex families to have grown up in urban areas (Black, Sanders, and Taylor 2007).

Measures to test the theoretical mechanisms. To test the family formation theory, and as part of the family characteristics, we include discrete variables for individuals' birth order and family size. According to the family formation theory, these variables are possible mediators of the relationship between having lived in same-sex families and labor market outcomes. By including them in the analysis, we account for young adults from same-sex families usually having lived in small families and being early in the birth order (Black, Sanders, and Taylor 2007; Mazrekaj, De Witte, and Cabus 2020).^{19,20}

Further, to test the human capital/signalling theory, we use diploma attainment in secondary education as a mediator. We construct diploma attainment as a binary indicator coded 1 if the

19. Note that birth order and family size are intended to be mediators. However, as we do not conclude the mediating role of these variables in Appendix C, we employ them as control variables throughout the analysis.

20. To account for the fact that first born individuals always have higher likelihoods of residing in small families than later born individuals, and to purge family size effects from birth order, we also estimate our model by constructing a birth order index as in Booth and Kee (2009) (see Table B.7 in the online supplement). Our results are robust to this alternative specification of birth order and family size.

young adult has passed high school exit exams on first attempt, and 0 if the young adult has not passed high school exit exams on first attempt or has dropped out of school.

Next, to test the discrimination theory, we construct a binary indicator for whether the young adult is residing in a rural or urban area at age 21. We distinguish between rural and urban areas by considering the number of residence addresses registered at the municipality where young adults are residing in the reference year. We label as rural (urban) all municipalities where the number of residence addresses per squared kilometer is lower (larger) than 1500.

Finally, to test the sector selection theory, we include a fifth outcome variable to measure young adults' industry choices. Specifically, we construct a binary indicator accounting for whether individuals are employed in a nontraditional (1) or traditional (0) industry. Because the (non) conventionality of a job is closely related to its stereotyping as masculine or feminine (McDowell 2015), we construct this outcome variable by first distinguishing the sex composition of the sectors in which young adults are employed. We identify 69 sectors, as established by the Tax and Customs Administration in the Netherlands (Belastingdienst 2021). We follow Bose and Rossi (1983) and define female-dominated (male-dominated) sectors as sectors in which the percentage of employed women is higher (lower) than the percentage of total women in the Dutch workforce, for every given year. Examples of female-dominated sectors so defined consist of health and social services, hospitality services and retail sales. Next, we define nontraditional industries based on the relationship between the sex composition of the sector where the individual is employed and the individual's own sex. In other words, nontraditional industries are coded as 1 if men (women) are employed in female- (male-)dominated sectors, and as 0 if men (women) are employed in male- (female-)dominated sectors. Note that, as we do not observe sectors for self-employed individuals, we can construct industry choices only for workers who receive income from salaried employment. Moreover, while we follow Bose and Rossi (1983) to define female- and male-dominated sectors, our results are robust to following Jacobs (1989) and defining female-dominated sectors as sectors in which the proportion of women is higher than 70 percent of the total Dutch workforce, and male-dominated sectors as sectors in which the proportion of women is lower than 30 percent of

the total Dutch workforce (not reported).

5 Methods

5.1 Linear regression model

We estimate labor market outcomes of young adults from raised in same-sex families with a linear regression model estimated by ordinary least squares (OLS):

$$Y_i = \beta_0 + \beta_1 H_i + \alpha \mathbf{X}_i + \varepsilon_i \quad (1)$$

where Y_i indicates the labor market outcome variables for individual i : log gross earnings in euros, log gross hourly wage, full-time employment (1 if full-time employed, 0 if part-time employed), employment (1 if employed, 0 if unemployed or inactive), and industry choice (1 if employed in nontraditional sector, 0 if employed in traditional sector).^{21,22} Further, H_i defines the key variable of interest, and takes value 1 if the individual has lived for at least one year in a same-sex family during childhood, and 0 if the individual has lived in a different-sex family.²³ Finally, \mathbf{X}_i defines a series of individual, family and socioeconomic control variables, which we include differently according to our specification. In all model specifications, we include an indicator for sex (1 if male, 0 if female), a categorical variable for the country of origin, indicators for birth years, and indicators for the municipality of birth. To account for heteroskedasticity in the error term, we use

21. Note that we estimate a linear probability model when the dependent variable is binary. However, our results are robust to logit specification (see Table B.5 in the online supplement).

22. We also considered estimating annual earnings and hourly wages using a Heckman selection model to account for earnings and wages being only partially observed. However, we discarded this methodology based on the unavailability of valid instruments to estimate the selection equation. For instance, while number of children and marital status have been used to model especially women's labor market participation (see, e.g., Mulligan and Rubinstein 2008), these variable are unlikely to be applicable to our context given that our sample is made of young adults who are by majority unmarried and childless at the time of their labor market performance. Nonetheless, our results are robust to estimating a Heckman selection model using number of children and marital status as instruments (not reported).

23. However, we also re-estimate our main model with a continuous variable that accounts for the number of years young adults have spent in a same-sex family, as we show in Table B.6.

Huber-White robust standard errors.²⁴

Although our population data cover a time span large enough to observe labor market performance of young adults from same-sex families, establishing the association between residing in a same-sex family and labor market outcomes, net of possible confounding factors, is not trivial. A first challenge comes from identifying the sample of workers. To single out individuals who are on the labor market with a long-time perspective, we only focus on children who have never enrolled in higher education by the age of 21. That is, we exclude children who have attended HBO (higher vocational education) or WO (higher general education). However, this choice has two important implications. First, it roughly halves the number of young adults from same-sex families that we are able to identify from 1,287 (full sample) to 605 (current sample of young adults not enrolled in higher education). Second, although focusing on young adults not in higher education is a necessary choice to spot individuals who share similar observable and unobservable characteristics, it may lead to a non-random composition of the sample if young adults from same-sex families are enrolled in higher university at different frequencies than young adults from different-sex families. In the online supplement, we compare young adults from same-sex families to young adults from different-sex families on the likelihood of being enrolled in higher education, finding no significant differences between the two groups (see Table A.1). Additionally, we also estimate our models on the full sample (see Table B.1) and on the sample of older birth cohorts for whom we observe whether they finished tertiary education (see Table A.2). These estimations lead to results that are consistent with conclusions from our main model specification, suggesting no selection in the composition of our sample.

Estimating the association between living in same-sex families and labor market outcomes presents a second challenge. To observe early labor market performance of children in same-sex families, we include cohorts of children born before the legalization of same-sex partnerships in 1998. This results in heterogeneity in the birth cohorts included in our study, and heterogeneity in family types. On the one hand, the older birth cohorts for the vast majority entered a same-sex fam-

24. Clustering standard errors at the municipality level does not alter the main conclusions in Table 3.

ily later in life, and experienced parental break-ups while residing in a same-sex family. To limit the bias stemming from the (distinct) negative effect of parental separation, we include controls for family instability, as often done in the literature (Cenegy, Denney, and Kimbro 2018; Reczek et al. 2016). On the other hand, the labor market outcomes of young adults who entered a same-sex family later in life might be different than those of young adults who were born in planned same-sex families, for two main reasons. First, we may expect that the mechanisms discussed earlier in Section 3 are stronger for individuals who were nurtured by same-sex parents since birth. Second, planned same-families share distinctive features relative to later-formed same-sex families. For instance, given the costly and time-consuming procedures to obtain children for same-sex couples, only the motivated and wealthy same-sex couples are likely to engage in these procedures to obtain children. Therefore, the socioeconomic status of same-sex families will hide considerable heterogeneity as planned same-sex families will likely have higher resources than later-formed same-sex families. Moreover, same-sex (female) parents conceiving their children through Donor Insemination (DI) may even choose their donor to be young and highly educated (Whyte, Torgler, and Harrison 2016). However, controlling for human capital formation in wage regressions is problematic due to endogeneity bias arising from the inability to account for unobserved (but influential) characteristics such as ability. To test whether the heterogeneity in family types may influence our results, first, we re-estimate our model using a continuous variable that accounts for the number of years spent in a same-sex family as key variable of interest (see Table B.6 in the online supplement). As such, we investigate the direction of the relationship between share of childhood spent in same-sex families and labor market outcomes. Second, we re-estimate our model only on the subsample of young adults born in same-sex families, as we discuss later in Section 6.3. Finally, we re-estimate our model on the last birth cohorts (see Table B.2 in the online supplement), and find similar results as in our main model specification.

5.2 Mediation analysis

To test the role of human capital in shaping young adults' performance on the labor market, we perform a mediation analysis using diploma attainment in secondary education as mediator. Similarly, we assess the role of family formation by performing a mediation analysis with family size and birth order as mediators. More details on the method and on the expected relationship between the key variable of interest, the outcome variables, and the mediators can be found in Appendix C in the online supplement.

5.3 Coarsened Exact Matching

In our analysis, we are able to observe the population of young adults from same-sex families. However, this sample is much smaller than the sample of young adults from different-sex families, and likely less heterogeneous, which may lead to bias in the estimation of our key coefficient of interest. As argued by Ho et al. (2007), if control units (in our case, young adults from different-sex families) are too heterogeneous with respect to treatment units (in our case, young adults from same-sex families), the estimation of the treatment effect may become dependent on the statistical specification of the model. Model dependence, in turn, can cause bias in the estimation of the treatment effect. Thus, the very large number of young adults from different-sex families relative to young adults from same-sex families may lead to a biased estimate of the relationship between having lived in same-sex families and labor market outcomes.

To improve the balance in our control variables and further test the robustness of our results, we employ coarsened exact matching (CEM) by Iacus, King, and Porro (2011, 2012). We coarsen the following control variables: annual household earnings to deciles of the income distribution, age of mother at birth to six categories (younger than 25, 26 to 30, 31 to 35, 36 to 40, 41 to 45, older than 46), family transition to three categories (never experienced a family transition, experienced at least one family transition, experienced two or more family transitions), ethnicity to two categories (both parents born in the Netherlands, at least one parent born outside the Netherlands), family

size to three categories (only child, two children, more than two children), and birth order to three categories (first born, second born, later than second born). As for the remaining covariates, we do not perform any coarsening but we seek an exact match.

5.4 Coefficient stability test

We should note that the identification strategy to assess young adults' performance on the labor market is mostly based on adding control variables to account for observables (*selection on observables*). Although many of the control variables included in our study may correlate with unobserved characteristics (for instance parental socioeconomic status and family characteristics are likely correlated with parental motivation Guryan, Hurst, and Kearney 2008), we do not observe other variables which might influence young adults' labor market outcomes, such as parental involvement in career planning (Feldman 2003) (*selection on unobservables*). Stability of coefficients after the inclusion of control variables has often been interpreted as evidence that the bias from omitted variables is limited, under the hypothesis that the bias arising from the inclusion of observables is informative about the bias that would arise if the full set of control variables could be included – observables and unobservables. However, as shown by Oster (2019), the stability of coefficients alone is not enough to derive the robustness of results, as it may fail to acknowledge the quality of the controls included. In fact, covariates that do not move coefficients by much may fail to do so not because the treatment effect is robust to omitted variable bias, but because these variables explain little of the dependent variable's variance. As such, movements in R-squared (which reflect the quality of the controls included) need to be accounted for as well to correctly infer whether estimates are effectively robust to omitted variable bias.

To this end, we follow Oster (2019) and construct a consistent estimator for omitted variable bias (β^*) relying on movements in coefficients, movements in R-squared, and assumptions on the degree of selection on observed and unobserved variables (δ). More details on the methodology can be found in Appendix E.

6 Results

6.1 Sample characteristics

Our sample consists of 239,313 young adults, of which 605 lived for at least one year in a same-sex family during childhood, and 112 were raised by same-sex parents from birth until age 15.²⁵ Table 2 reports the descriptive statistics as well as the p -values of a difference in means test.²⁶

< TABLE 2 HERE >

Consistent with earlier studies (Aldén, Bjorklund, and Hammarstedt 2017; Boertien and Bernardi 2019; Mazrekaj, De Witte, and Cabus 2020; Kabátek and Perales 2021), young adults from same-sex families are more likely to have fewer siblings (hence they are more likely to be early in the birth order) in column 2. They also appear to have higher-educated parents than young adults from different-sex families, although not significantly. However, they have younger mothers and significantly lower household income than young adults from different-sex families. Young adults from same-sex families have also experienced significantly more family transitions during childhood, and are less likely to be born into married families. This is not surprising as most of the individuals in our sample entered a same-sex family later in life, having to deal with parental break-ups and changes in the household composition while growing up. This is because same-sex partnerships were legalized in the Netherlands in 1998, so most children in our sample could be born in a planned same-sex family only if belonging to the latest birth cohorts. If, however, we only consider the subsample of young adults born in same-sex families in column 3, we notice that these young adults have lived in more stable families during childhood, as they experienced less

25. As previously mentioned, 558 of these young adults lived in a female same-sex family, whereas 47 in a gay family. The low number of gay families prevents us from estimating our models separately for female and male same-sex families.

26. Because disclosure agreements prevent us from showing statistics based on small numbers, in the Table 2, we aggregate ethnicity and family structure at birth at a higher level and show parental education as a continuous variable (0 if at least one parent is a high school dropout, 1 if both parents have a high school diploma, 2 if at least one parent has a high school education, 3 if both parents have a higher education diploma). However, in the analyses, we include these control variables as described in 4.3.

family transitions while growing up (albeit not significantly). Nonetheless, young adults raised by same-sex parents from birth are still less likely to be born into married families but more likely to be born into cohabiting families. It is likely that same-sex couples, although living together since the birth of the child, delayed registered partnership and marriage until they felt the public attitude towards these family arrangements reached a certain threshold. We further observe that young adults who were raised by same-sex parents from birth enjoy significantly higher socioeconomic status (i.e. higher household income, higher parental education, and higher maternal age at birth) than young adults from different-sex families. Finally, young adults from same-sex families appear to be as ethnically diverse as young adults from different-sex families.

Based on descriptive statistics, young adults from same-sex families seem to earn significantly less annually than young adults from different-sex families, both in levels and in logarithmic terms, and they also appear to earn less per hour in terms of levels. Further, young adults from same-sex families appear to be as employed as young adults from different-sex families, although they are less employed in full-time occupations and more employed in nontraditional industries (especially when considering young adults born in same-sex families). These differences, however, are not significant, and descriptive comparisons do not control for possible differences in observed characteristics between young adults from same-sex and different-sex families.

6.2 Young adults from same-sex families and labor market performance

Table 3 compares young adults from same-sex families to young adults from different-sex families on their early labor market performance. Keep in mind that these young adults have not enrolled in higher education by age 21. In Appendix A in the online supplement, we test for the non-random composition of our sample and dig deeper into higher education enrolment of young adults from same-sex versus different-sex families, and find no selection in the composition of our sample. Columns 1 and 2 in Table 3 show results for log gross earnings, columns 3 and 4 for log gross

hourly wage, columns 5 and 6 for employment, and columns 7 and 8 for full-time employment.²⁷ Our findings suggest that young adults from same-sex families earn just as much and are just as likely to be employed and full-time employed as young adults from different-sex families.

< TABLE 3 HERE >

To test the sensitivity of our results, we employ coarsened exact matching and match every young adult from a same-sex family to at least one young adult from a different-sex family with similar or exactly the same observed characteristics. As mentioned previously, the aim of the CEM matching procedure is to reduce the imbalance in the distribution of the control variables. Our matched sample consists of 21,400 young adults, of which 408 lived in a same-sex family in childhood. The results in Table B.4 in the online supplement confirm the results of our main analysis for all outcome variables. We also show that our results are robust to the inclusion of omitted variable bias by performing the coefficient stability test as in Oster (2019) in Table E.1 in the online supplement.

6.3 Young adults born in a same-sex family

So far, our sample of young adults from same-sex families has heterogeneously included both young adults who entered a same-sex family later in life and young adults who were born and raised in a planned same-sex family throughout childhood. However, these two groups are likely very different, both on observable and unobservable characteristics (Mazrekaj, De Witte, and Cabus 2020). As discussed earlier in Section 6.1, young adults born in same-sex families enjoy a higher socioeconomic status and are less likely to experience family instability than young adults who entered a same-sex family later in life. Moreover, the influence of same-sex parenting is likely to be larger for young adults born in same-sex families as they are nurtured by same-sex parents during their entire childhood. Therefore, we check the sensitivity of our results by focusing on

27. We will separately discuss estimations on the likelihood of being employed in a nontraditional industry in Section 3, as it is one of the theoretical mechanisms reported in Section 3.

the subsample of young adults who have lived with same-sex parents since birth (and until age 15).²⁸ Around 20 percent of the young adults from same-sex families in our sample fall into this category, which corresponds to 112 individuals. We show our results in Table 4, where columns 1 and 2 report the estimates of our model for log gross earnings, columns 3 and 4 for log gross hourly wage, columns 5 and 6 for employment, and columns 7 and 8 for full-time employment.

< TABLE 4 HERE >

Table 4 reveals that young adults born in same-sex families tend to earn significantly less than young adults from different-sex families. When the full set of covariates is controlled for in column 2, young adults born in same-sex families are found to earn 29.5 percent less throughout the year than their peers from different-sex families, which corresponds to an earnings differential of around 5,200 euros. This negative association on annual earnings is partly explained by the sorting of young adults born in same-sex families in part-time occupations. Our results show that when the full set of covariates is controlled for in column 8, young adults from same-sex families are 12.5 percentage points less likely to be full-time employed than young adults from different-sex families. Nevertheless, young adults born in same-sex families are also found to earn 12.2 percent less per hour than young adults from same-sex families in column 3, although this association is reduced to 8 percent and becomes non significant when the full set of control variables is included in column 4. The negative associations on hourly earnings suggest that young adults from same-sex families tend to earn less even when their shorter work hours are taken into account. These results are robust to CEM, to the inclusion of omitted variable bias by means of a coefficient stability test as in Oster (2019) (see Table E.1 in the appendix), and to multiple hypothesis testing (see Table B.13 in the appendix).

28. We also estimated our models on a redefined variable of interest that accounts for the number of years spent in a same-sex family, ranging from 0 (never lived in a same-sex family) to 15 (always lived in a same-sex family). We show our results in Table B.6 in the online supplement. Our findings are in line with findings from our main specification in Table 3. When the full set of covariates is included, young adults from same-sex families earn just as much and are just as likely to be employed as young adults from different-sex families. Young adults from same-sex families appear to be significantly less employed in full-time occupations, but this coefficient is very close to zero and not meaningful.

6.4 Mechanisms

Sex identity theory and discrimination theory. According to the sex identity theory, males and females from same-sex families might perform differently on the labor market than their peers from different-sex families. To test this theory for the full sample of young adults from same-sex families (both born and not born in a same-sex family), we report in Panel A of Table 5 the estimated model separately for the subsample of males (columns 1 to 4) and females (columns 5 to 8). If the sex identity theory holds, the difference in earnings when comparing females from same-sex families to females from different-sex families should be significantly higher than the difference in earnings when comparing males from same-sex families to males from different-sex families.

< TABLE 5 HERE >

Overall, our results indicate that young adults from same-sex families perform just as well as young adults from different-sex families on the labor market regardless of their sex. Although we find that log gross earnings are positively correlated with females from same-sex families (column 5), while negatively correlated with males from same-sex families (column 1), these associations are not significant and are only found for log gross earnings. Moreover, a test of equality of coefficients fails to reject the null hypothesis of equality of coefficients between females and males from same-sex families, for both log gross earnings and log gross hourly wage (p -value = 0.656 for log gross earnings, p -value = 0.130 for log gross hourly wage). We also find no heterogeneity by sex for the sample of young adults who were raised by same-sex parents since birth (see Table B.10 in the online supplement).²⁹ Therefore, we interpret our results as evidence that the sex identity theory does not play a role in modeling young adults' outcomes on the labor market.

In Panel B of Table 5, we test the discrimination theory by analysing labor market outcomes by urbanicity. If the discrimination theory holds, the potential discrepancy in labor market outcomes

29. However, we should emphasize that the limited sample size of young adults born in same-sex families suggests caution in the interpretation of particularly those mechanisms that are tested by further splitting the sample.

between young adults from same-sex and different-sex families should be smaller if positive or larger if negative in rural communities where discrimination against same-sex parents is likely to be higher than in urban areas that are typically very tolerant towards same-sex parenting. Overall, our findings indicate that young adults from same-sex families perform just as well as young adults from different-sex families on the labor market in both rural (columns 5 to 8) and urban municipalities (columns 1 to 4). In both subsamples, no significant difference is found for any of the outcome variables. The same is true for the sample of young adults who were raised by same-sex parents from birth (see Table B.10 in the online supplement). Thus, our results show no evidence that young adults from same-sex families may be discriminated against by employers on the labor market.

Human capital/signalling theory and family formation theory. Two additional mechanisms that may drive young adults from same-sex families to perform differently than young adults from different-sex families on the labor market relate to their differences in education (human capital/signalling theory), and family size (family formation theory). To test these theories, we perform separate mediation analyses.

To conserve space, we discuss the analyses in Appendix C in the online supplement and show the results in Table C.1 for the human capital/signalling theory and in Table C.2 for the family formation theory. We find no evidence that diploma attainment mediates the relationship between having resided in a same-sex family and labor market outcomes. Moreover, we find that the relationship between family size and birth order as mediators in the relationship between residing in a same-sex family and labor market outcomes does not go in the direction predicted by the family formation theory. Therefore, our results are suggestive that the human capital/signalling theory and the family formation theory do not play a significant role when comparing labor market outcomes of young adults from same-sex versus different-sex families.

Sector-selection theory. The sector-selection theory posits that young adults from same-sex families, by not conforming to sex-stereotypes in childhood and having parents who equally divide paid

and unpaid labor among each other, will be more likely to sort into nontraditional industries. To test this mechanism, we estimate a model in which the outcome variable is a binary indicator given value of 1 if the individual is employed in a nontraditional sector and value of 0 if the individual is employed in a traditional sector. We show our results in Table 6.

< TABLE 6 HERE >

The findings for the full sample (both born and not born in a same-sex family) suggest that young adults from same-sex families are just as likely as young adults from different-sex families to sort into nontraditional industries. However, examining the sample of young adults raised by same-sex parents from birth yields a different result. The last two columns of Table 6 show that, when the full set of covariates is controlled for, young adults born in same-sex families are about 15.0 percent more likely than young adults from different-sex families to choose an industry that is atypical from their sex. These findings are robust to CEM (not reported) and to accounting for multiple hypothesis testing (see Table B.13 in the appendix). They are also robust to additionally controlling for the municipalities where young adults live at age 21 to account for the possible correlation between individuals' current municipality of residence and labor market conditions (e.g. job opportunities or industry composition) within the municipality (not reported). Thus, the sector-selection theory appears to be particularly relevant for the subset of young adults who have lived with same-sex parents from birth.

Earlier, we found that young adults born in same-sex families earned less than young adults from different-sex families. This negative association was partly explained by the sorting of young adults born in same-sex families in part-time occupations. Nonetheless, a proportion of the association remained unexplained. Because a sector's sex composition is also reflected on its average wage level (with female-dominated sectors typically being lower-paying than male-dominated sectors), the overall negative association found in Table 4 might additionally reflect the degree to which boys and girls from same-sex families are differently affected by the mechanism behind the sector-selection theory. To test this, we examine the correlation between being raised by same-

sex parents from birth and choosing for nontraditional industries by sex.³⁰ Specifically, we look at the likelihood of being employed in a female-dominated sector in the case of boys and in a male-dominated sector in the case of girls. Our findings (reported in Table B.12 in the online supplement) are suggestive that the sorting in nontraditional sectors is driven by boys from same-sex families, who are 20.3 percent more likely than boys from different-sex families to choose a female-dominated industry. No association is found for girls. Therefore, the sector-selection theory may explain the remaining part of the negative association on earnings, given that young adults born in same-sex families will earn lower wages than their comparison group from different-sex families partly because they are predominantly employed in female-dominated sectors. Nonetheless, these associations should be read with caution as they are computed on very small sample sizes.

Two other mechanisms may also explain our results. First, young adults from same-sex families (mostly female same-sex families in our data) might be 'following their mothers' and choosing female-dominated industries (*parent sector hypothesis*). Table B.11 in the online supplement indeed shows a positive association between having resided in a same-sex family and choosing for female-dominated sectors, in samples that include both boys and girls. However, in appendix D in the online supplement we reject this hypothesis by linking young adults' industries to their parents' industries in our data. Second, it may be argued that mothers and fathers are not perfect substitutes but rather provide different inputs to a child's growth (*role model hypothesis*, Allen 2013). By having two mothers or two fathers, young adults born in same-sex families might sort into non-traditional sectors because they miss the complementary parenting styles that opposite-sex parents provide. We reject this hypothesis by observing industry choices of young adults from different-sex families who lost a parent during their childhood in Appendix D in the online supplement. Finally, by testing the human capital/signalling theory we also indirectly rule out the explanation

30. We also tested this assumption by including sector-fixed effects in the regression models estimating the influence of being born in same-sex families on earnings. We found that, when sector fixed effects were included, the estimated association on annual earnings decreased by 43.39%, whereas the estimated association on log hourly wages decreased by 17.07%.

that young adults born in same-sex families have lower human capital than young adults from different-sex families and therefore cannot estimate their future income properly, leading to the choice of less lucrative occupations. On the contrary, we find that young adults born in same-sex families obtain a high school diploma more often than young adults from different-sex families, albeit not significantly.

7 Conclusion

This paper provided first evidence on population data of how young adults who lived in a same-sex family in childhood fare on the labor market shortly after high school graduation. Using longitudinal administrative data from the Netherlands, we compared young adults from same-sex families and young adults from different-sex families who did not enrol into higher education by age 21 on a range of labor market outcomes. Our results showed no significant difference in labor market performance between the two groups. Specifically, young adults from same-sex families were found to earn just as much, to be equally employed, and to have equal probability of being full-time employed as young adults from different-sex families.

These findings, however, hide considerable heterogeneity by the time spent in same-sex families. Young adults who were born in same-sex families and raised by same-sex parents throughout childhood were found to earn less than young adults from different-sex families. This association is partly explained by the sorting of young adults born in same-sex families in part-time occupations. The other part of the association is likely explained by young adults born in same-sex families choosing for nontraditional industries (i.e. industries dominated by the opposite sex). In particular, boys from same-sex families are found to be predominantly employed in nontraditional industries, which are generally less lucrative than male-dominated industries. No significant association is found for girls. Our findings are consistent with what we have labeled as the sector-selection theory. This theory posits that because young adults born in same-sex families tend to conform less to gender roles and are influenced since birth by their parents' egalitarian household labor division,

they will be more likely to choose an industry that is atypical than their sex. Other hypotheses to explain the negative association between being raised by same-sex parents and earnings did not hold in our data including the sex identity theory, discrimination theory, human capital/signalling theory, and family formation theory. We also excluded additional explanations such as mimicking mothers' occupational behavior, lacking complementary role models, and having lower human capital than young adults from different-sex families.

From a policy perspective, our results suggest that parents' sex composition is reflected on young adults' labor market choices. This is possibly because family environment can influence young people's attitudes about sex roles (Stacey and Biblarz 2001; Fulcher, Sutfin, and Patterson 2008; Biblarz and Stacey 2010; Brewster 2017). Thus, in addition to the home environment, discussions about sex stereotypes could be stimulated in schools so that young people may make informed labor market choices free from preset beliefs about sex roles.

Some final considerations and limitations of this study are worth noting. First, we should emphasize that our analysis refers to the Netherlands, a country where the LGBTQ+ community enjoys broad cultural support and where same-sex partnerships have been legal for more than twenty years. Therefore, our results might be an upper bound on the relationship between having lived in same-sex families in childhood and labor market outcomes. Second, although our study is directly related to previous research by Mazrekaj, De Witte, and Cabus (2020) and Kabátek and Perales (2021), our sample is somewhat different than the samples employed in these studies. This difference is largely due to the focus on older birth cohorts to study early labor market outcomes of young adults from same-sex families. However, our results are robust to several sensitivity tests, including the estimation on later birth cohorts, the use of Coarsened Exact Matching to reduce imbalances between family types, and the analysis of coefficient stability as developed by Oster (2019). Third, our data do not provide a measure of individuals' sexual orientation. This means that while we are able to compare the sex of partners in a couple, we cannot assign sexual identities to parents. As such, our study is not suited to examine how young adults raised by sexual minority parents (which include single parents) perform relative to young adults raised by

non-sexual minority parents. Further, our results mostly refer to female same-sex families as the number of male same-sex families is too small to derive correct inference.

Finally, we should emphasize that our analysis concerns individuals observed at a young age and who did not enroll in higher education. Although most theoretical mechanisms do not appear to be supported by our empirical findings, these theories may become more relevant as individuals get older or may apply differently to individuals who have attended higher education. However, in our analyses we noted that young adults from same-sex families were just as likely as young adults from different-sex families to enroll in higher education. Further, observing the labor market outcomes at a later age and including young adults who finished higher education yielded consistent findings with those obtained in our main analysis. Finally, young adults born in same-sex families who did not enroll in higher education after high school share similar observed characteristics as young adults born in same-sex families who decided to continue their education (i.e. high socioeconomic status, low family size, old age of parents). Therefore, we expect that similar and additional mechanisms than those discussed in this paper will also apply to the pool of college graduates raised in same-sex families. Examining labor market outcomes of individuals when they are older and further exploring the labor market performance of young adults who have graduated from tertiary education are avenues that are worth exploring in future research.

Tables

Table 1: Overview of the theoretical mechanisms

| Theoretical mechanism | Log gross earnings (1) | Log gross hourly wages (2) | Employment (3) | Full-time employment (4) | Nontraditional industry (5) |
|---------------------------------|------------------------------|----------------------------------|-------------------|--------------------------------|-----------------------------------|
| Sex identity theory | + | + | n/a | n/a | n/a |
| | (driven by females) | (driven by females) | | | |
| Family formation theory | + | + | + | + | n/a |
| human capital/signalling theory | + | + | + | + | n/a |
| Discrimination theory | - | - | - | - | n/a |
| Sector-selection theory | + or - | + or - | n/a | n/a | + |

Notes. This table shows an overview of the relationship between living in same-sex versus different-sex families and the outcome variables, as predicted by the theoretical mechanism discussed in Section 3. Note that we do not expect every mechanism to affect all outcome variables, and we denote unaffected outcome variables with "n/a".

Table 2: Descriptive statistics

| | Young adults from different-sex families (1) | Young adults from same-sex families (2) | Young adults born in same-sex families (3) |
|---|--|---|--|
| Sex (1 is male) | 0.557 | 0.549 | 0.625 |
| Ethnicity (1 is both parents born in NL, 0 is at least one parent not born in NL) | 0.752 | 0.686 | 0.804 |
| Log household annual gross income | 11.014 | 10.917 [#] | 11.3 [#] |
| Household annual gross income | 73,778.967 | 68,439.578 [#] | 92,421.274 [#] |
| Parental education ^a | 0.851 | 1.049 [#] | 1.890 [#] |
| Family transitions | 0.103 | 1.504 [#] | 0.036 |
| Family structure at birth (1 is married parents, 0 is cohabiting parents or other) | 0.874 | 0.593 [#] | 0.339 [#] |
| Age of mother at birth | 30.034 | 29.674 [#] | 35.143 [#] |
| Family size | 2.748 | 2.436 [#] | 2.134 [#] |
| Birth order | 1.953 | 1.641 [#] | 1.527 [#] |
| <i>Outcome variables</i> | | | |
| Gross annual earnings in EUR | 18,508.325 | 17,033.818 [#] | 12,500.8 [#] |
| Log gross annual earnings | 9.525 | 9.426 [#] | 9.047 [#] |
| Gross hourly wage in EUR | 10.531 | 10.44 [#] | 9.304 [#] |
| Log gross hourly wage | 2.274 | 2.265 | 2.149 |
| Employment (1 is yes) | 0.929 | 0.899 | 0.938 |
| Full-time employment (1 is yes) | 0.348 | 0.291 | 0.196 |
| Nontraditional industry (1 is yes) | 0.283 | 0.326 | 0.500 [#] |
| Number of children | 238,708 | 605 | 112 |

Notes: [#]The mean for Young adults from same-sex families is significantly different at the 5 percent level from the mean for Young adults from different-sex families in column (1) by means of a two-tailed z-test.

^aNote that because of missing values related to this variable, the number of young adults from different-sex families is 206,671, the number of young adults from same-sex families is 484, and the number of young adults born in same-sex families is 84. ^bNote that with respect to this variable, the number of young adults from different-sex families is 205,276, the number of young adults from same-sex families is 491, and the number of young adults born in same-sex families is 92, given that we define it only on the basis of salaried employment.

Table 3: Young adults from same-sex families and labor market outcomes

| | Log gross earnings | | Log gross hourly wage | | Employment | | Full-time employment | |
|---|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Young adult has lived in a SSF (1 is yes) | -0.047 (0.038) | -0.003 (0.038) | -0.006 (0.020) | 0.010 (0.020) | -0.023 (0.012) | -0.002 (0.012) | -0.034 (0.020) | -0.007 (0.020) |
| Sex (1 is male) | 0.187*** (0.004) | 0.193*** (0.004) | 0.041*** (0.002) | 0.043*** (0.002) | -0.004*** (0.001) | -0.004*** (0.001) | 0.250*** (0.002) | 0.251*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | | | | | |
| One NL parent, other Western | -0.161*** (0.007) | -0.143*** (0.007) | -0.041*** (0.003) | -0.036*** (0.003) | -0.018*** (0.002) | -0.016*** (0.002) | -0.069*** (0.004) | -0.063*** (0.004) |
| One NL parent, other non-Western | -0.260*** (0.015) | -0.255*** (0.015) | -0.050*** (0.008) | -0.047*** (0.008) | -0.026*** (0.004) | -0.021*** (0.004) | -0.124*** (0.007) | -0.121*** (0.007) |
| Both parents not NL | -0.278*** (0.007) | -0.429*** (0.007) | -0.025*** (0.004) | -0.066*** (0.004) | -0.040*** (0.002) | -0.029*** (0.002) | -0.182*** (0.003) | -0.228*** (0.003) |
| Log household income | | -0.012*** (0.002) | | 0.004*** (0.001) | | 0.006*** (0.001) | | -0.000 (0.001) |
| Parental education (1 is diploma SE) | | -0.122*** (0.004) | | -0.029*** (0.002) | | 0.027*** (0.001) | | -0.038*** (0.002) |
| Family transitions | | -0.005 (0.004) | | -0.004 (0.002) | | -0.012*** (0.001) | | -0.010*** (0.003) |
| Family structure (ref: married parents) | | | | | | | | |
| Cohabiting parents | | -0.081*** (0.006) | | -0.015*** (0.003) | | -0.018*** (0.002) | | -0.033*** (0.003) |
| Other | | -0.120*** (0.024) | | -0.036*** (0.012) | | -0.026*** (0.007) | | -0.059*** (0.011) |
| Age of mother at birth | | -0.016*** (0.001) | | -0.005*** (0.000) | | -0.002*** (0.000) | | -0.005*** (0.000) |
| Family size | | 0.031*** (0.002) | | 0.012*** (0.001) | | -0.003*** (0.001) | | 0.010*** (0.001) |
| Birth order | | 0.022*** (0.003) | | 0.010*** (0.001) | | 0.001 (0.001) | | 0.005*** (0.001) |
| Constant | 9.060*** (0.063) | 9.624*** (0.068) | 2.012*** (0.039) | 2.072*** (0.042) | 0.895*** (0.020) | 0.873*** (0.022) | 0.068* (0.032) | 0.215*** (0.035) |
| Birth year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 222,200 | 222,200 | 205,767 | 205,767 | 239,313 | 239,313 | 205,767 | 205,767 |
| Number of young adults from SSF | 544 | 544 | 491 | 491 | 605 | 605 | 491 | 491 |
| R-squared | 0.0829 | 0.0958 | 0.0699 | 0.0748 | 0.0125 | 0.0170 | 0.123 | 0.128 |

Notes: The table shows the estimated association between living in a same-sex family and labor market outcomes. SSF indicates same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: Young adults born in same-sex families and labor market outcomes

| | Log gross earnings | | Log gross hourly wage | | Employment | | Full-time employment | |
|--|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Young adult has lived in a SSF from birth (1 is yes) | -0.452*** (0.097) | -0.295** (0.097) | -0.122* (0.047) | -0.082 (0.047) | 0.015 (0.023) | 0.025 (0.023) | -0.177*** (0.040) | -0.125** (0.040) |
| Sex (1 is male) | 0.188*** (0.004) | 0.193*** (0.004) | 0.041*** (0.002) | 0.043*** (0.002) | -0.004*** (0.001) | -0.004*** (0.001) | 0.250*** (0.002) | 0.252*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | | | | | |
| One NL parent, other Western | -0.161*** (0.007) | -0.143*** (0.007) | -0.041*** (0.003) | -0.036*** (0.003) | -0.018*** (0.002) | -0.016*** (0.002) | -0.069*** (0.004) | -0.063*** (0.004) |
| One NL parent, other non-Western | -0.260*** (0.015) | -0.255*** (0.015) | -0.050*** (0.008) | -0.048*** (0.008) | -0.026*** (0.004) | -0.021*** (0.004) | -0.124*** (0.007) | -0.121*** (0.007) |
| Both parents not NL | -0.278*** (0.007) | -0.429*** (0.007) | -0.026*** (0.004) | -0.066*** (0.004) | -0.040*** (0.002) | -0.029*** (0.002) | -0.183*** (0.003) | -0.229*** (0.003) |
| Log household income | | -0.012*** (0.002) | | 0.004** (0.001) | | 0.006*** (0.001) | | -0.000 (0.001) |
| Parental education (1 is diploma SE) | | -0.122*** (0.004) | | -0.029*** (0.002) | | 0.027*** (0.001) | | -0.039*** (0.002) |
| Family transitions | | -0.007 (0.004) | | -0.004 (0.002) | | -0.012*** (0.002) | | -0.011*** (0.003) |
| Family structure (ref: married parents) | | | | | | | | |
| Cohabiting parents | | -0.080*** (0.006) | | -0.014*** (0.003) | | -0.018*** (0.002) | | -0.032*** (0.003) |
| Other | | -0.119*** (0.024) | | -0.035** (0.012) | | -0.021** (0.008) | | -0.062*** (0.011) |
| Age of mother at birth | | -0.016*** (0.001) | | -0.005*** (0.000) | | -0.002*** (0.000) | | -0.005*** (0.000) |
| Family size | | 0.031*** (0.002) | | 0.012*** (0.001) | | -0.003*** (0.001) | | 0.010*** (0.001) |
| Birth order | | 0.022*** (0.003) | | 0.010*** (0.001) | | 0.001 (0.001) | | 0.005*** (0.001) |
| Constant | 9.059*** (0.063) | 9.622*** (0.069) | 2.013*** (0.040) | 2.073*** (0.042) | 0.895*** (0.020) | 0.873*** (0.022) | 0.069* (0.032) | 0.216*** (0.035) |
| Birth year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 221,761 | 221,761 | 205,368 | 205,368 | 238,820 | 238,820 | 205,368 | 205,368 |
| Number of young adults from SSF | 105 | 105 | 92 | 92 | 112 | 112 | 92 | 92 |
| R-squared | 0.0831 | 0.0958 | 0.0700 | 0.0749 | 0.0125 | 0.0169 | 0.123 | 0.128 |

The table shows the estimated associations between living in same-sex families from birth and log gross earnings, log hourly wage, employment, and full-time employment. SSF indicates same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: Young adults from same-sex families and labor market outcomes, by sex and urbanicity

| PANEL A | Males | | | | Females | | | |
|---|---------------------------|------------------------------|---------------------|-----------------------------|---------------------------|------------------------------|---------------------|-----------------------------|
| | Log gross earnings (1) | Log gross hourly wage (2) | Employment (3) | Full-time employment (4) | Log gross earnings (5) | Log gross hourly wage (6) | Employment (7) | Full-time employment (8) |
| Young adult has lived in a SSF (1 is yes) | -0.027 (0.051) | 0.014 (0.024) | -0.001 (0.016) | -0.021 (0.029) | 0.024 (0.056) | 0.005 (0.034) | -0.004 (0.019) | 0.014 (0.028) |
| Constant | 9.990*** (0.104) | 2.108*** (0.066) | 0.860*** (0.032) | 0.556*** (0.057) | 9.420*** (0.090) | 2.061*** (0.051) | 0.886*** (0.029) | 0.107* (0.042) |
| Additional controls ^a | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of young adults | 123,611 | 113,238 | 133,357 | 113,238 | 98,589 | 92,529 | 105,956 | 92,529 |
| No. of young adults from SSF | 299 | 272 | 332 | 272 | 245 | 219 | 273 | 219 |
| R-squared | 0.102 | 0.0739 | 0.0258 | 0.0946 | 0.0737 | 0.0774 | 0.0127 | 0.0396 |
| PANEL B | Urban | | | | Rural | | | |
| | Log gross earnings (1) | Log gross hourly wage (2) | Employment (3) | Full-time employment (4) | Log gross earnings (5) | Log gross hourly wage (6) | Employment (7) | Full-time employment (8) |
| Young adult has lived in a SSF (1 is yes) | -0.039 (0.052) | 0.002 (0.027) | 0.004 (0.016) | -0.029 (0.025) | 0.055 (0.053) | 0.018 (0.031) | -0.010 (0.020) | 0.025 (0.034) |
| Constant | 9.738*** (0.159) | 2.030*** (0.140) | 0.842*** (0.060) | 0.245** (0.088) | 9.556*** (0.078) | 2.065*** (0.044) | 0.886*** (0.024) | 0.189*** (0.040) |
| Additional controls ^b | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of young adults | 101,981 | 93,710 | 111,535 | 93,710 | 120,219 | 112,057 | 127,778 | 112,057 |
| No. of young adults from SSF | 337 | 299 | 376 | 299 | 207 | 192 | 229 | 192 |
| R-squared | 0.0708 | 0.0688 | 0.0197 | 0.100 | 0.108 | 0.0822 | 0.0175 | 0.139 |

The tables show the estimated associations between living in same-sex families and labor market outcomes, for males and females (Panel A), and young adults living in rural and urban municipalities (Panel B). Rural (urban) municipalities are defined as having less (more) than 1500 number of residences per kilometer squared. SSF indicates same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

^aAdditional controls include ethnicity, log household income, parental education, family transitions, family structure at birth, age of mother at birth, family size, birth order, birth year fixed effects, municipality at birth fixed effects.

^bAdditional controls include sex, ethnicity, log household income, parental education, family transitions, family structure at birth, age of mother at birth, family size, birth order, birth year fixed effects, municipality at birth fixed effects

Table 6: Young adults from same-sex families and nontraditional industries

| <i>Outcome:</i> Employed in nontraditional sector | Full sample | | Born | |
|---|------------------|------------------|---------------------|--------------------|
| | (1) | (2) | (3) | (4) |
| Young adult has lived in a SSF (1 is yes) | 0.029 (0.020) | 0.010 (0.021) | 0.174*** (0.049) | 0.150** (0.049) |
| Individual controls ^a | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | No | Yes |
| Family controls ^c | No | Yes | No | Yes |
| Number of young adults | 205,767 | 205,767 | 205,368 | 205,368 |
| Number of young adults from SSF | 491 | 491 | 92 | 92 |
| R-squared | 0.0512 | 0.0532 | 0.0512 | 0.0532 |

The table shows the estimated association between living in same-sex families and sorting into nontraditional industries on the labor market. Full sample includes both young adults born and not born in same-sex families; born includes only young adults raised in same-sex families from birth. Sectors are defined on the basis of sector codes provided by the Tax and Customs Administration in the Netherlands (Belastingdienst 2021). Nontraditional industries are defined by comparing the sector's sex composition to the individual's sex. Specifically, an individual is assigned to a nontraditional industry if the sector in which the individual is employed is predominantly occupied by the opposite sex. This means that if the individual is a men, a nontraditional industry is an occupation in a female-dominated sector; if the individual is a women, a nontraditional industry is an occupation in a male-dominated sector. Female-dominated (male-dominated) sectors are defined as sectors in which the percentage of employed women is higher (lower) than the percentage of total women in the Dutch workforce, for every given year. Robust standard errors, clustered at the individual level, in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aIndividual controls include sex, ethnicity, birth year fixed effects and municipality at birth fixed effects.

^bSES controls include log household income and parental education.

^cFamily controls include family transitions, family structure, age of mother at birth, family size, and birth order.

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Online Supplement

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Appendices

A Education in the Netherlands

A.1 Dutch educational context

In the Netherlands, children start compulsory education at the age of five. At the end of primary education (around age twelve), children enter a tracking system and choose a secondary school in a pre-vocational track (VMBO), a general track (HAVO), and a pre-university track (VWO). Each track differs in the number of school years and type of education provided. The pre-university track lasts six years and prepares pupils for research-oriented higher education (WO). The general track lasts five years and prepares pupils for professionally oriented higher education (HBO). The HBO trains students for specific professions, and is the equivalent of college education in the US. Finally, the pre-vocational track lasts four years and prepares pupils for the vocational track (MBO), which, in turn, teaches practical occupations that can be immediately performed after high school graduation. The MBO consists of four levels, and lasts one to four years depending on the level selected.

Education in the Netherlands is compulsory until age 18, or until a diploma from MBO, HAVO or VWO is obtained. The majority of pupils acquires a vocational qualification. For instance, in 2017, 54 percent of high school graduates obtained their diploma from the vocational track, whereas the remaining 46 percent was divided between the general and the pre-university track (OECD 2019). More generally, while the majority of pupils attending the general or the pre-university track enroll in higher education after high school diploma, only a small proportion of vocational graduates continues with education. For comparison, in 2017, among the entrants to bachelor's programs, only 24 percent had a vocational qualification (OECD 2019). Therefore, in our analysis, by looking at labor market performances of young adults who did not enrol in higher education after high school, in practice, we are primarily looking at labor market outcomes of

individuals with vocational background.

A.2 Young adults from same-sex families, higher education, and labor market

To better understand whether the sample of young adults from same-sex families not enrolled in higher education we observe in the main analysis may be representative of the full population of young adults from same-sex families, first, we examine the association between having lived in a same-sex versus a different-sex family and transition into higher education. Specifically, using the full sample of individuals born in the Netherlands between 1995 and 1999 (which includes both individuals who continued their education after high school graduation and those who discontinued it), we investigate the likelihood of young adults from same-sex families to be enrolled in higher education shortly after high school diploma, i.e. at age 19. We show results in Table A.1 below, both for the full sample of young adults from same-sex families (column 1) and for the subsample of young adults born in same-sex families (column 2), when the full set of covariates is included. Our findings show that the estimated association between having lived in a same-sex family and tertiary education enrolment is close to zero and nonsignificant for both the full sample of young adults from same-sex families and the subsample of young adults born in same-sex families. These findings also hold when we additionally control for diploma attainment in secondary education to account for young adults in same-sex families' school performance (not reported). Thus, our findings suggest that young adults from same-sex families are just as likely as young adults from different-sex families to enroll in higher education after high school graduation.

Second, we examine the labor market outcomes of young adults from same-sex versus different-sex families at age 23. At this age, individuals are likely to have graduated from tertiary education. Hence, we examine the labor market performance of young adults who never enrolled in higher education as well as the labor market performance of young adults who finished higher education at age 23. We consider that individuals completed tertiary education if they did

not enroll in a new degree program after academic graduation. We show our results in Table A.2, where we report the estimated coefficients when the full set of covariates is controlled for. The results are consistent with the findings of Table 3 and 4 in our main analysis. In the case of the full sample (that includes both young adults born and not born in same-sex families), all estimated coefficients are close to zero and not significant. In the case of the subsample (that includes only young adults born in same-sex families), we find a sizeable negative association on earnings and fulltime employment, and a positive association on nontraditional industries. Nonetheless, these associations are not significant, which may reflect the lower sample size of young adults born in same-sex families being identified.

Table A.1: Young adults from same-sex families and higher education enrolment at age 19

| | Young adults from same-sex families (1) | Young adults born in same-sex families (2) |
|---|---|--|
| Young adult has lived in a SSF (1 is yes) | 0.009 (0.013) | -0.018 (0.024) |
| Sex (1 is male) | -0.071*** (0.001) | -0.071*** (0.001) |
| Ethnicity (ref: both parents born in NL) | | |
| One NL parent, other Western | -0.004 (0.002) | -0.004 (0.002) |
| One NL parent, other non-Western | -0.007 (0.004) | -0.007 (0.004) |
| Both parents not NL | 0.014*** (0.002) | 0.013*** (0.002) |
| Log household income | 0.060*** (0.001) | 0.060*** (0.001) |
| Parental education (1 is diploma SE) | 0.226*** (0.002) | 0.226*** (0.002) |
| Family transitions | -0.050*** (0.002) | -0.050*** (0.002) |
| Family structure (ref: married parents) | | |
| Cohabiting parents | -0.036*** (0.002) | -0.035*** (0.002) |
| Other | -0.029*** (0.007) | -0.030*** (0.007) |
| Age of mother at birth | 0.017*** (0.000) | 0.017*** (0.000) |
| Family size | 0.035*** (0.001) | 0.035*** (0.001) |
| Birth order | -0.075*** (0.001) | -0.075*** (0.001) |
| Constant | -0.795*** (0.012) | -0.795*** (0.012) |
| Birth year FE | Yes | Yes |
| Municipality at birth FE | Yes | Yes |
| Number of young adults | 568,130 | 567,230 |
| Number of young adults from SSF | 1,287 | 387 |
| R-squared | 0.108 | 0.107 |

Notes: The table shows the estimated associations between living in same-sex families and higher education choice. The outcome variable accounts for whether the individual is enrolled (1) or not enrolled (0) in higher education at age 19. Regressions are estimated by means of a linear probability model, for both the main sample of young adults from same-sex families (born and not born) and the subsample of young adults born in same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.2: Young adults from same-sex families and labor market outcomes at age 23

| | Log gross earnings (1) | Log gross hourly wages (2) | Employment (3) | Full-time employment (4) | Nontraditional industry (5) |
|---|------------------------------|----------------------------------|---------------------|--------------------------------|-----------------------------------|
| <i>Panel A</i> | | | | | |
| Young adult has lived in a SSF (1 is yes) | -0.004 (0.046) | 0.023 (0.022) | -0.035 (0.019) | -0.012 (0.028) | -0.023 (0.027) |
| Constant | 10.129*** (0.080) | 2.469*** (0.036) | 0.794*** (0.032) | 0.441*** (0.050) | -0.078 (0.042) |
| Additional controls | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 145,274 | 135,889 | 158,555 | 135,889 | 135,889 |
| Number of young adults from SSF | 311 | 288 | 368 | 288 | 288 |
| <i>Panel B</i> | | | | | |
| Young adult has lived in a SSF from birth (1 is yes) | -0.150 (0.108) | -0.012 (0.033) | -0.042 (0.037) | -0.105 (0.057) | 0.041 (0.058) |
| Constant | 10.129*** (0.080) | 2.470*** (0.036) | 0.793*** (0.033) | 0.441*** (0.051) | -0.077 (0.042) |
| Additional controls | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 145,034 | 135,669 | 158,269 | 135,669 | 135,669 |
| Number of young adults from SSF | 71 | 68 | 82 | 68 | 68 |
| R-squared | 0.0590 | 0.0306 | 0.0284 | 0.105 | 0.0270 |

Notes. This table shows the estimated association between living in same-sex families and labor market outcomes of 23-year-olds who never enrolled in higher education by that age or finished higher education. Young adults have finished higher education if they graduated at age 23 or earlier and did not enroll in a new degree program. Panel A shows the results for the full sample (born and not born in same-sex families); Panel B shows the results for the subsample of young adults born in same-sex families. SSF indicates same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

B Supplementary Figures and Tables

Table B.1: Labor market outcomes of young adults from same-sex families for the full sample (both in higher education and not in higher education)

| | Log gross earnings | | Log gross hourly wage | | Employment | | Full-time employment | |
|---|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Young adult has lived in a SSF (1 is yes) | 0.011 (0.031) | 0.006 (0.030) | 0.012 (0.013) | 0.016 (0.013) | -0.011 (0.008) | 0.003 (0.008) | -0.002 (0.011) | -0.000 (0.011) |
| Sex (1 is male) | 0.134*** (0.003) | 0.133*** (0.003) | 0.023*** (0.001) | 0.023*** (0.001) | -0.017*** (0.001) | -0.017*** (0.001) | 0.145*** (0.001) | 0.145*** (0.001) |
| Ethnicity (ref: both parents born in NL) | | | | | | | | |
| One NL parent, other Western | -0.153*** (0.005) | -0.126*** (0.005) | -0.016*** (0.002) | -0.011*** (0.002) | -0.019*** (0.001) | -0.017*** (0.001) | -0.039*** (0.002) | -0.033*** (0.002) |
| One NL parent, other non-Western | -0.125*** (0.010) | -0.157*** (0.010) | -0.014*** (0.005) | -0.015*** (0.005) | -0.019*** (0.003) | -0.018*** (0.003) | -0.054*** (0.003) | -0.062*** (0.003) |
| Both parents not NL | 0.132*** (0.005) | -0.253*** (0.005) | 0.019*** (0.002) | -0.029*** (0.003) | -0.004*** (0.001) | -0.013*** (0.001) | -0.057*** (0.002) | -0.152*** (0.002) |
| Log household income | | -0.112*** (0.002) | | 0.000 (0.001) | | -0.008*** (0.000) | | -0.020*** (0.001) |
| Parental education (1 is diploma SE) | | -0.336*** (0.004) | | -0.048*** (0.002) | | 0.015*** (0.001) | | -0.098*** (0.002) |
| Family transitions | | 0.050*** (0.004) | | 0.006*** (0.002) | | -0.007*** (0.001) | | 0.010*** (0.002) |
| Family structure (ref: married parents) | | | | | | | | |
| Cohabiting parents | | -0.032*** (0.005) | | -0.004 (0.002) | | -0.010*** (0.001) | | -0.007*** (0.002) |
| Other | | -0.092*** (0.018) | | -0.017* (0.008) | | -0.019*** (0.005) | | -0.027*** (0.006) |
| Age of mother at birth | | -0.035*** (0.000) | | -0.004*** (0.000) | | -0.003*** (0.000) | | -0.009*** (0.000) |
| Family size | | -0.002 (0.002) | | 0.013*** (0.001) | | -0.002*** (0.000) | | -0.003*** (0.001) |
| Birth order | | 0.095*** (0.002) | | 0.007*** (0.001) | | 0.004*** (0.001) | | 0.026*** (0.001) |
| Constant | 8.851*** (0.054) | 11.218*** (0.058) | 2.015*** (0.029) | 2.110*** (0.030) | 0.945*** (0.014) | 1.117*** (0.015) | 0.040* (0.019) | 0.549*** (0.021) |
| Birth year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 527,083 | 527,083 | 486,466 | 486,466 | 568,545 | 568,545 | 486,466 | 486,466 |
| Number of young adults from SSF | 1,167 | 1,167 | 1,062 | 1,062 | 1,288 | 1,288 | 1,062 | 1,062 |
| R-squared | 0.0455 | 0.0951 | 0.0438 | 0.0481 | 0.0101 | 0.0133 | 0.0643 | 0.0867 |

Notes: The table shows the estimated associations between living in same-sex families and labor market outcomes, for the full sample of young adults that includes young adults who enrolled in higher education after high school as well as young adults who discontinued their studies. SSF indicates same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.2: Labor market outcomes of young adults from same-sex families for selected later birth cohorts

| | Log gross earnings | | Log gross hourly wage | | Employment | | Full-time employment | |
|---|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Young adult has lived in a SSF (1 is yes) | -0.016 (0.056) | 0.039 (0.056) | -0.027 (0.031) | -0.011 (0.032) | -0.002 (0.016) | 0.016 (0.016) | -0.020 (0.030) | 0.019 (0.030) |
| Sex (1 is male) | 0.187*** (0.005) | 0.192*** (0.005) | 0.037*** (0.003) | 0.038*** (0.003) | -0.001 (0.001) | -0.002 (0.001) | 0.261*** (0.003) | 0.263*** (0.003) |
| Ethnicity (ref: both parents born in NL) | | | | | | | | |
| One NL parent, other Western | -0.180*** (0.010) | -0.163*** (0.010) | -0.042*** (0.005) | -0.037*** (0.005) | -0.020*** (0.003) | -0.019*** (0.003) | -0.083*** (0.005) | -0.076*** (0.005) |
| One NL parent, other non-Western | -0.251*** (0.021) | -0.242*** (0.021) | -0.044*** (0.010) | -0.041*** (0.010) | -0.034*** (0.006) | -0.029*** (0.006) | -0.139*** (0.010) | -0.134*** (0.010) |
| Both parents not NL | -0.289*** (0.010) | -0.419*** (0.011) | -0.037*** (0.005) | -0.069*** (0.006) | -0.041*** (0.003) | -0.032*** (0.003) | -0.192*** (0.005) | -0.233*** (0.005) |
| Log household income | | -0.008* (0.003) | | 0.005*** (0.002) | | 0.005*** (0.001) | | -0.000 (0.002) |
| Parental education (1 is diploma SE) | | -0.099*** (0.006) | | -0.017*** (0.003) | | 0.029*** (0.002) | | -0.028*** (0.004) |
| Family transitions | | -0.015* (0.007) | | -0.004 (0.003) | | -0.010*** (0.002) | | -0.018*** (0.004) |
| Family structure (ref: married parents) | | | | | | | | |
| Cohabiting parents | | -0.070*** (0.008) | | -0.012** (0.004) | | -0.015*** (0.002) | | -0.031*** (0.004) |
| Other | | -0.165*** (0.036) | | -0.047** (0.017) | | -0.030** (0.011) | | -0.074*** (0.017) |
| Age of mother at birth | | -0.016*** (0.001) | | -0.004*** (0.000) | | -0.002*** (0.000) | | -0.006*** (0.000) |
| Family size | | 0.031*** (0.003) | | 0.013*** (0.001) | | -0.002* (0.001) | | 0.009*** (0.002) |
| Birth order | | 0.019*** (0.004) | | 0.010*** (0.002) | | 0.002 (0.001) | | 0.007*** (0.002) |
| Constant | 9.556*** (0.093) | 10.089*** (0.101) | 2.334*** (0.052) | 2.364*** (0.055) | 0.934*** (0.026) | 0.922*** (0.029) | 0.138** (0.045) | 0.304*** (0.049) |
| Birth year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 103,825 | 103,825 | 96,270 | 96,270 | 110,995 | 110,995 | 96,270 | 96,270 |
| Number of young adults from SSF | 257 | 257 | 238 | 238 | 277 | 277 | 238 | 238 |
| R-squared | 0.0647 | 0.0756 | 0.0246 | 0.0294 | 0.0116 | 0.0162 | 0.127 | 0.131 |

Notes: The table shows the estimated associations between living in same-sex families and labor market outcomes, for individuals born in 1998 and 1999. SSF indicates same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.3: Young adults from same-sex families and net earnings

| | Log net earnings | | Log net hourly wages | |
|---|----------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) |
| Young adult has lived in a SSF (1 is yes) | -0.046 (0.038) | -0.004 (0.037) | -0.002 (0.019) | 0.010 (0.019) |
| Sex (1 is male) | 0.180*** (0.004) | 0.186*** (0.004) | 0.023*** (0.002) | 0.025*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | |
| One NL parent, other Western | -0.158*** (0.007) | -0.140*** (0.007) | -0.033*** (0.003) | -0.029*** (0.003) |
| One NL parent, other non-Western | -0.257*** (0.015) | -0.251*** (0.015) | -0.041*** (0.007) | -0.039*** (0.007) |
| Both parents not NL | -0.272*** (0.007) | -0.420*** (0.007) | -0.015*** (0.003) | -0.051*** (0.004) |
| Log net household income | | -0.009*** (0.002) | | 0.002 (0.001) |
| Parental education (1 is diploma SE) | | -0.122*** (0.004) | | -0.026*** (0.002) |
| Family transitions | | -0.004 (0.004) | | -0.002 (0.002) |
| Family structure (ref: married parents) | | | | |
| Cohabiting parents | | -0.080*** (0.006) | | -0.011*** (0.003) |
| Other | | -0.117*** (0.023) | | -0.034** (0.011) |
| Age of mother at birth | | -0.016*** (0.001) | | -0.004*** (0.000) |
| Family size | | 0.031*** (0.002) | | 0.010*** (0.001) |
| Birth order | | 0.022*** (0.003) | | 0.011*** (0.001) |
| Constant | 9.054*** (0.062) | 9.579*** (0.068) | 1.915*** (0.037) | 1.985*** (0.039) |
| Birth year FE | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes |
| Number of young adults | 222,169 | 222,169 | 205,738 | 205,738 |
| Number of young adults from SSF | 544 | 544 | 491 | 491 |
| R-squared | 0.0824 | 0.0953 | 0.0712 | 0.0753 |

The table shows the estimated associations between living in same-sex families and log net earnings. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.4: Young adults from same-sex families and labor market outcomes, with data processed by means of Coarsened Exact Matching (CEM)

| | Log gross earnings (1) | Log gross hourly wages (2) | Employment (3) | Full-time employment (4) |
|---|---------------------------|-------------------------------|---------------------|-----------------------------|
| Young adult has lived in a SSF (1 is yes) | -0.013 (0.054) | 0.015 (0.028) | -0.017 (0.017) | -0.035 (0.029) |
| Constant | 9.493*** (0.024) | 2.258*** (0.014) | 0.912*** (0.009) | 0.347*** (0.014) |
| Number of young adults | 20,219 | 18,884 | 21,400 | 18,884 |
| Number of young adults from SSF | 365 | 337 | 408 | 337 |

The table shows the estimated association between living in a same-sex family and labor market outcomes. The sample is defined by means of a CEM matching procedure. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.5: Logistic regression on employment, full-time employment, and industry choices as outcome variables

| | Employment | | Full-time employment | | Nontraditional industry | |
|---|-------------------|-------------------|----------------------|-------------------|-------------------------|------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Young adult has lived in a SSF (1 is yes) | -0.021 (0.011) | -0.001 (0.009) | -0.034 (0.020) | -0.007 (0.022) | 0.028 (0.020) | 0.008 (0.019) |
| Individual controls ^a | Yes | Yes | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | No | Yes | No | Yes |
| Family controls ^c | No | Yes | No | Yes | No | Yes |
| Number of young adults | 239,292 | 239,292 | 205,767 | 205,767 | 205,767 | 205,767 |
| Number of young adults from SSF | 605 | 605 | 491 | 491 | 491 | 491 |

Notes. The table shows the estimated associations between living in same-sex families and our binary outcome variables (employment, full-time employment, and employment in a nontraditional sector) using a logit specification. The sample includes both young adults born and not born in a same-sex family. To facilitate comparison with the results obtained using a Linear Probability Model, we report the average marginal effects. Standard errors computed using the delta method are in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aIndividual controls include ethnicity, birth year fixed effects and municipality at birth fixed effects.

^bSES controls include log household income and parental education.

^cFamily controls include family transitions, family structure, age of mother at birth, family size, and birth order.

Table B.6: Number of years in same-sex families and labor market outcomes

| | Log gross earnings | | Log gross hourly wage | | Employment | | Full-time employment | |
|--|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Number of years in same-sex family | -0.014** (0.005) | -0.007 (0.005) | -0.005 (0.003) | -0.003 (0.002) | -0.001 (0.001) | 0.000 (0.001) | -0.008*** (0.002) | -0.005* (0.002) |
| Sex (1 is male) | 0.187*** (0.004) | 0.193*** (0.004) | 0.041*** (0.002) | 0.043*** (0.002) | -0.004*** (0.001) | -0.004*** (0.001) | 0.250*** (0.002) | 0.251*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | | | | | |
| One NL parent, other Western | -0.161*** (0.007) | -0.143*** (0.007) | -0.041*** (0.003) | -0.036*** (0.003) | -0.018*** (0.002) | -0.016*** (0.002) | -0.069*** (0.004) | -0.063*** (0.004) |
| One NL parent, other non-Western | -0.260*** (0.015) | -0.255*** (0.015) | -0.050*** (0.008) | -0.047*** (0.008) | -0.026*** (0.004) | -0.021*** (0.004) | -0.124*** (0.007) | -0.121*** (0.007) |
| Both parents not NL | -0.278*** (0.007) | -0.429*** (0.007) | -0.026*** (0.004) | -0.066*** (0.004) | -0.040*** (0.002) | -0.029*** (0.002) | -0.182*** (0.003) | -0.228*** (0.003) |
| Log household income | | -0.012*** (0.002) | | 0.004*** (0.001) | | 0.006*** (0.001) | | -0.000 (0.001) |
| Parental education (1 is diploma SE) | | -0.122*** (0.004) | | -0.029*** (0.002) | | 0.027*** (0.001) | | -0.038*** (0.002) |
| Family transitions | | -0.005 (0.004) | | -0.003 (0.002) | | -0.012*** (0.001) | | -0.010*** (0.002) |
| Family structure (ref: married parents) | | | | | | | | |
| Cohabiting parents | | -0.081*** (0.006) | | -0.014*** (0.003) | | -0.018*** (0.002) | | -0.032*** (0.003) |
| Other | | -0.120*** (0.024) | | -0.036** (0.012) | | -0.027*** (0.007) | | -0.059*** (0.011) |
| Age of mother at birth | | -0.016*** (0.001) | | -0.005*** (0.000) | | -0.002*** (0.000) | | -0.005*** (0.000) |
| Family size | | 0.031*** (0.002) | | 0.012*** (0.001) | | -0.003*** (0.001) | | 0.010*** (0.001) |
| Birth order | | 0.022*** (0.003) | | 0.010*** (0.001) | | 0.001 (0.001) | | 0.005*** (0.001) |
| Constant | 9.060*** (0.063) | 9.623*** (0.068) | 2.013*** (0.039) | 2.072*** (0.042) | 0.895*** (0.020) | 0.873*** (0.022) | 0.068* (0.032) | 0.215*** (0.035) |
| Birth year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 222,200 | 222,200 | 205,767 | 205,767 | 239,313 | 239,313 | 205,767 | 205,767 |
| Number of young adults from SSF | 544 | 544 | 491 | 491 | 605 | 605 | 491 | 491 |
| R-squared | 0.0830 | 0.0958 | 0.0699 | 0.0748 | 0.0125 | 0.0170 | 0.123 | 0.128 |

Notes: The table shows the estimated associations between labor market outcomes and number of years spent in a same-sex family, ranging from 0 (never lived in a same-sex family) to 16 (always lived in a same-sex family from birth). SSF indicates same-sex families. Robust standard errors, clustered at the individual level, in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.7: Young adults from same-sex families, labor market outcomes and birth order index

| | Log gross earnings (1) | Log gross hourly wages (2) | Employ- ment (3) | Full-time employment (4) |
|---|------------------------------|----------------------------------|------------------------|--------------------------------|
| Young adult has lived in a SSF (1 is yes) | -0.003 (0.038) | 0.010 (0.020) | -0.002 (0.012) | -0.007 (0.020) |
| Sex (1 is male) | 0.193*** (0.004) | 0.043*** (0.002) | -0.004*** (0.001) | 0.252*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | |
| One NL parent, other Western | -0.143*** (0.007) | -0.036*** (0.003) | -0.016*** (0.002) | -0.063*** (0.004) |
| One NL parent, other non-Western | -0.255*** (0.015) | -0.047*** (0.008) | -0.021*** (0.004) | -0.121*** (0.007) |
| Both parents not NL | -0.429*** (0.007) | -0.066*** (0.004) | -0.029*** (0.002) | -0.228*** (0.003) |
| Log household income | -0.012*** (0.002) | 0.004*** (0.001) | 0.006*** (0.001) | -0.000 (0.001) |
| Parental education (1 is diploma SE) | -0.121*** (0.004) | -0.029*** (0.002) | 0.027*** (0.001) | -0.038*** (0.002) |
| Family transitions | -0.006 (0.004) | -0.004 (0.002) | -0.012*** (0.001) | -0.010*** (0.003) |
| Family structure (ref: married parents) | | | | |
| Cohabiting parents | -0.080*** (0.006) | -0.014*** (0.003) | -0.018*** (0.002) | -0.032*** (0.003) |
| Other | -0.118*** (0.024) | -0.035** (0.012) | -0.026*** (0.007) | -0.059*** (0.011) |
| Age of mother at birth | -0.016*** (0.001) | -0.005*** (0.000) | -0.002*** (0.000) | -0.005*** (0.000) |
| Family size | 0.043*** (0.001) | 0.018*** (0.001) | -0.002*** (0.000) | 0.013*** (0.001) |
| Birth order index | 0.054*** (0.006) | 0.026*** (0.003) | 0.003 (0.002) | 0.014*** (0.003) |
| Constant | 9.582*** (0.068) | 2.053*** (0.041) | 0.871*** (0.021) | 0.205*** (0.035) |
| Birth year FE | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes |
| Number of young adults | 222,200 | 205,767 | 239,313 | 205,767 |
| Number of young adults from SSF | 544 | 491 | 605 | 491 |
| R-squared | 0.0958 | 0.0749 | 0.0170 | 0.128 |

Notes. The table shows the estimated associations between living in same-sex families and labor market outcomes, when family size effects are purged from birth order. Following Booth and Kee (2009), a birth order index is estimated in place of the discrete variable that accounts for the child's birth order. The birth order index is obtained as follows. First, the average birth order (A) is calculated as $A = (N+1)/2$, where N is family size; next, the birth order index (B) is obtained by dividing the absolute birth order (ϕ) by the average birth order (A). In formula: $B = \phi/A$. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.8: Labor market outcomes of young adults from same-sex families and categorical parental education

| | Log gross earnings (1) | Log gross hourly wages (2) | Employ- ment (3) | Full-time employment (4) |
|--|------------------------------|----------------------------------|------------------------|--------------------------------|
| Young adult has lived in a SSF (1 is yes) | 0.042 (0.043) | 0.019 (0.022) | 0.010 (0.014) | 0.005 (0.023) |
| Sex (1 is male) | 0.173*** (0.005) | 0.043*** (0.002) | -0.007*** (0.001) | 0.234*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | |
| One NL parent, other Western | -0.123*** (0.008) | -0.036*** (0.004) | -0.015*** (0.003) | -0.053*** (0.004) |
| One NL parent, other non-Western | -0.226*** (0.018) | -0.037*** (0.009) | -0.012* (0.005) | -0.109*** (0.008) |
| Both parents not NL | -0.395*** (0.008) | -0.054*** (0.004) | -0.027*** (0.003) | -0.211*** (0.004) |
| Log household income | -0.002 (0.003) | 0.007*** (0.002) | 0.009*** (0.001) | 0.006*** (0.001) |
| Parental education (ref: one parent is a school dropout) | | | | |
| Both parents hold SE diploma | -0.045*** (0.006) | -0.014*** (0.003) | 0.020*** (0.002) | -0.014*** (0.003) |
| One parent has higher education diploma | -0.188*** (0.006) | -0.040*** (0.003) | 0.005** (0.002) | -0.059*** (0.003) |
| Both parents have higher education diploma | -0.399*** (0.013) | -0.081*** (0.006) | -0.029*** (0.004) | -0.126*** (0.006) |
| Family transitions | 0.001 (0.005) | 0.000 (0.003) | -0.012*** (0.002) | -0.004 (0.003) |
| Family structure (ref: married parents) | | | | |
| Cohabiting parents | -0.074*** (0.008) | -0.014*** (0.004) | -0.023*** (0.002) | -0.028*** (0.004) |
| Other | -0.137*** (0.029) | -0.050*** (0.015) | -0.033*** (0.009) | -0.061*** (0.013) |
| Age of mother at birth | -0.012*** (0.001) | -0.004*** (0.000) | -0.001*** (0.000) | -0.004*** (0.000) |
| Family size | 0.033*** (0.003) | 0.012*** (0.001) | -0.002* (0.001) | 0.010*** (0.001) |
| Birth order | 0.016*** (0.003) | 0.011*** (0.002) | -0.002 (0.001) | 0.004* (0.002) |
| Constant | 9.392*** (0.080) | 2.000*** (0.052) | 0.816*** (0.029) | 0.116** (0.041) |
| Birth year FE | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes |
| Number of young adults | 142,582 | 131,530 | 156,241 | 131,530 |
| Number of young adults from SSF | 421 | 380 | 471 | 380 |
| R-squared | 0.0891 | 0.0675 | 0.0142 | 0.120 |

Notes. The table shows the estimated associations between living in same-sex families and labor market outcomes, with parental education included as a categorical variable. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.9: Labor market outcomes of young adults aged 20 and 19 years old

| | Log gross earnings | | Log gross hourly wage | | Employment | | Full-time employment | |
|---|---------------------|---------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| <i>PANEL A: Age 20</i> | | | | | | | | |
| Young adult has lived in a SSF (1 is yes) | -0.027 (0.038) | 0.014 (0.038) | -0.003 (0.021) | 0.005 (0.021) | -0.020 (0.011) | -0.005 (0.011) | -0.018 (0.017) | 0.003 (0.018) |
| Constant | 8.689*** (0.059) | 9.553*** (0.064) | 1.711*** (0.046) | 1.807*** (0.048) | 0.912*** (0.019) | 0.878*** (0.021) | -0.013 (0.026) | 0.134*** (0.029) |
| Individual controls ^a | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | No | Yes | No | Yes | No | Yes |
| Family controls ^c | No | Yes | No | Yes | No | Yes | No | Yes |
| Number of young adults | 226,437 | 226,437 | 207,362 | 207,362 | 239,313 | 239,313 | 207,362 | 207,362 |
| Number of young adults from SSF | 557 | 557 | 505 | 505 | 605 | 605 | 505 | 505 |
| R-squared | 0.0743 | 0.0946 | 0.0517 | 0.0583 | 0.00871 | 0.0125 | 0.118 | 0.125 |
| <i>PANEL B: Age 19</i> | | | | | | | | |
| Young adult has lived in a SSF (1 is yes) | -0.048 (0.036) | -0.011 (0.036) | -0.007 (0.022) | -0.007 (0.022) | -0.003 (0.008) | 0.009 (0.008) | -0.018 (0.014) | -0.006 (0.014) |
| Constant | 8.331*** (0.052) | 9.336*** (0.058) | 1.496*** (0.044) | 1.496*** (0.044) | 0.948*** (0.016) | 0.906*** (0.017) | -0.017 (0.022) | 0.084*** (0.024) |
| Individual controls ^a | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | No | Yes | No | Yes | No | Yes |
| Family controls ^c | No | Yes | No | Yes | No | Yes | No | Yes |
| Number of young adults | 230,376 | 230,376 | 205,320 | 205,320 | 239,313 | 239,313 | 205,320 | 205,320 |
| Number of young adults from SSF | 579 | 579 | 503 | 503 | 605 | 605 | 503 | 503 |
| R-squared | 0.0544 | 0.0825 | 0.0299 | 0.0299 | 0.00577 | 0.00916 | 0.106 | 0.113 |

Notes: The table shows the estimated association between living in same-sex families and labor market outcomes, for young adults born between 1995 and 1999 and aged 20 (*PANEL A*) and 19 (*PANEL B*) years old. SSF indicates same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aIndividual controls include sex, ethnicity, birth year fixed effects and municipality at birth fixed effects.

^bSES controls include log household income and parental education.

^cFamily controls include family transitions, family structure, family size, age of mother at birth and birth order.

Table B.10: Theoretical mechanisms for young adults raised by same-sex parents from birth

| <i>Panel A: Sex identity theory</i> | | | | | | | | |
|---|---------------------------|------------------------------|---------------------|------------------------|---------------------------|------------------------------|---------------------|------------------------|
| | Males | | | | Females | | | |
| | Log gross earnings (1) | Log gross hourly wage (2) | Employment (3) | Full-time empl. (4) | Log gross earnings (5) | Log gross hourly wage (6) | Employment (7) | Full-time empl. (8) |
| Young adult has lived in a SSF (1 is yes) | -0.264* (0.104) | -0.078 (0.059) | 0.061** (0.021) | -0.103 (0.054) | -0.319 (0.200) | -0.070 (0.077) | -0.035 (0.050) | -0.022 (0.014) |
| Constant | 9.989*** (0.104) | 2.108*** (0.066) | 0.860*** (0.032) | 0.556*** (0.057) | 9.418*** (0.091) | 2.063*** (0.052) | 0.887*** (0.029) | 0.328*** (0.022) |
| Additional controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of young adults | 123,380 | 113,029 | 133,095 | 113,029 | 98,381 | 92,339 | 105,725 | 243,715 |
| No. of young adults from SSF | 68 | 63 | 70 | 63 | 37 | 29 | 42 | 29 |
| R-squared | 0.102 | 0.0740 | 0.0258 | 0.0946 | 0.0737 | 0.0775 | 0.0127 | 0.0283 |
| <i>Panel B: Discrimination theory</i> | | | | | | | | |
| | Urban | | | | Rural | | | |
| | Log gross earnings (1) | Log gross hourly wage (2) | Employment (3) | Full-time empl. (4) | Log gross earnings (5) | Log gross hourly wage (6) | Employment (7) | Full-time empl. (8) |
| Young adult has lived in a SSF (1 is yes) | -0.266* (0.126) | -0.051 (0.056) | 0.041 (0.026) | -0.134** (0.046) | -0.342* (0.147) | -0.152 (0.085) | -0.002 (0.047) | -0.091 (0.077) |
| Constant | 9.735*** (0.159) | 2.030*** (0.140) | 0.842*** (0.060) | 0.243** (0.088) | 9.556*** (0.078) | 2.066*** (0.045) | 0.887*** (0.024) | 0.191*** (0.040) |
| Additional controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of young adults | 101,716 | 93,473 | 111,235 | 93,473 | 120,045 | 111,895 | 127,585 | 111,895 |
| No. of young adults from SSF | 72 | 62 | 76 | 62 | 33 | 30 | 36 | 30 |
| R-squared | 0.0708 | 0.0689 | 0.0196 | 0.100 | 0.108 | 0.0823 | 0.0175 | 0.139 |

Notes. The table shows the results from testing the sex identity theory, and the discrimination theory on the subsample of young adults raised by same-sex parents from birth until age 15. SSF indicates same-sex families. Panel A shows labor market outcomes separately for males and females born in same-sex families (sex identity theory); Panel B shows labor market outcomes of young adults born in same-sex families according to whether they are residing in urban or rural areas (discrimination theory). We start by describing Panel A. Although a negative association on earnings (in most cases not significant) is found both for females and males from same-sex families, females from same-sex families appear to suffer smaller losses (both in terms of log gross earnings and log gross hourly wages) than males from same-sex families. However, a test of equality of coefficients fails to reject the null hypothesis of equality of coefficients between females and males from same-sex families, suggesting no role of the sex identity theory in shaping young adults' outcomes on the labor market. Turning to Panel B, although the negative association (in most cases not significant) on both annual earnings and hourly wages appears to be larger for young adults born in same-sex families who live in rural areas than for young adults born in same-sex families who live in urban areas, a test of equality of coefficients fails to reject the null hypothesis of equality of coefficients for all the outcome variables. However, we should emphasize the low sample size of young adults born in same-sex families when the sample is splitted by sex and urbanicity, which suggests caution in the interpretation of results.

Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.11: Young adults from same-sex families and female-dominated industries

| <i>Outcome:</i> Employed in female-dominated sector | Full sample | | Born | |
|---|-------------------|-------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) |
| Young adult has lived in a SSF (1 is yes) | 0.046* (0.020) | 0.041* (0.020) | 0.175*** (0.048) | 0.159*** (0.048) |
| Individual controls ^a | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | No | Yes |
| Family controls ^c | No | Yes | No | Yes |
| Number of young adults | 205,767 | 205,767 | 205,368 | 205,368 |
| Number of young adults from SSF | 491 | 491 | 92 | 92 |
| R-squared | 0.219 | 0.220 | 0.219 | 0.220 |

The table shows the estimated association between living in same-sex families and sorting into female-dominated sectors on the labor market. Full sample includes both young adults born and not born in same-sex families; born includes only young adults raised in same-sex families from birth until age 15. Sectors are defined on the basis of sector codes provided by the Tax and Customs Administration in the Netherlands (Belastingdienst 2021). Female-dominated (male-dominated) sectors are sectors in which the percentage of employed women is higher (lower) than the percentage of total women in the Dutch workforce, for every given year. Robust standard errors, clustered at the individual level, in parenthesis.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aIndividual controls include sex, ethnicity, birth year fixed effects and municipality at birth fixed effects.

^bSES controls include log household income and parental education.

^cFamily controls include family transitions, family structure, age of mother at birth, family size, and birth order.

Table B.12: Young adults born in same-sex families and nontraditional industries by sex

| <i>Outcome:</i> Employed in a nontraditional industry | Males | | Females | |
|---|---------------------|---------------------|-------------------|-------------------|
| | (1) | (2) | (3) | (4) |
| Young adult has lived in a SSF from birth (1 is yes) | 0.240*** (0.060) | 0.203*** (0.061) | -0.000 (0.070) | -0.009 (0.070) |
| Individual controls ^a | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | No | Yes |
| Family controls ^c | No | Yes | No | Yes |
| Number of young adults | 113,029 | 113,029 | 92,339 | 92,339 |
| Number of young adults from SSF | 63 | 63 | 29 | 29 |
| R-squared | 0.0336 | 0.0382 | 0.00830 | 0.00885 |

Notes. The table shows the estimated associations between living in same-sex families from birth and the likelihood of being employed in a nontraditional industry by sex. Nontraditional industries are defined by comparing the sector's sex composition to the individual's sex. Specifically, an individual is assigned to a nontraditional industry if the sector in which the individual is employed is predominantly occupied by the opposite sex. This means that in the subsample of males, a nontraditional industry is an occupation in a female-dominated sector; in the subsample of females, a nontraditional industry is an occupation in a male-dominated sector. Robust standard errors in parenthesis.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aIndividual controls include ethnicity, birth year fixed effects and municipality at birth fixed effects.

^bSES controls include log household income and parental education.

^cFamily controls include family transitions, family structure, age of mother at birth, family size, and birth order.

Table B.13: Multiple hypothesis testing

| Regression model | Log gross earnings | | Log gross hourly wage | | Employment | | Full-time employment | | Nontraditional sector | |
|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|
| | <i>p</i> -value (1) | <i>q</i> -value (2) | <i>p</i> -value (3) | <i>q</i> -value (4) | <i>p</i> -value (5) | <i>q</i> -value (6) | <i>p</i> -value (7) | <i>q</i> -value (8) | <i>p</i> -value (9) | <i>q</i> -value (10) |
| Main regression | | | | | | | | | | |
| (born and not born) | 0.9399 | 1.000 | 0.6301 | 1.000 | 0.7469 | 1.000 | 0.8935 | 1.000 | 0.6363 | 1.000 |
| By sex: male | 0.6006 | 1.000 | 0.5574 | 1.000 | 0.9712 | 1.000 | 0.4642 | 1.000 | | |
| By sex: female | 0.6667 | 1.000 | 0.8912 | 1.000 | 0.8109 | 1.000 | 0.6245 | 1.000 | | |
| By urbanicity: urban | 0.4533 | 1.000 | 0.9514 | 1.000 | 0.7967 | 1.000 | 0.2367 | 1.000 | | |
| By urbanicity: rural | 0.3023 | 1.000 | 0.5637 | 1.000 | 0.6028 | 1.000 | 0.4598 | 1.000 | | |
| Main regression (born) | 0.0024** | 0.022* | 0.0822 | 0.897 | 0.0019** | 1.000 | 0.2796 | 0.022* | 0.0023 | 0.022* |

Notes. The table shows *p*-values and *q*-values constructed from the coefficient showing the influence of same-sex families on selected outcomes, as shown in Table 3, Table 5, Table 4, and Table 6. *q*-values are constructed accounting for the False Discovery Rate (FDR) following **anderson2008multiple** and using *p*-values in this table. All regressions include controls for ethnicity, sex (except for regressions estimating heterogeneity by sex), birth year fixed effects, municipality at birth fixed effects, log household income, parental education, family transitions, family structure, age of mother at birth, family size, and birth order. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

C Details on human capital/signalling theory and family formation theory

C.1 Details on the mediation analyses

According to Baron and Kenny (1986), testing for mediation involves the estimation of three separate regressions. First, a regression of the dependent variables on the key independent variable of interest (in our case H_i , i.e. residing in a same-sex versus a different-sex family); second, a regression of each mediator on the key independent variable of interest; third, a regression of the dependent variables on both the key independent variable of interest and the mediator(s). Mediation occurs if (1) the key independent variable significantly correlates with the dependent variable in the first regression; (2) the key independent variable significantly correlates with the mediator in the second regression (thus establishing the relevance of the mediator); (3) the association between the key independent variable and the dependent variable is lower in the third regression than in the first one. If all conditions hold, then the mediator is sweeping away part (or all in case of complete mediation) of the estimated association between the key variable of interest and the outcome variables. Note that, in line with Hayes (2009) and Zhao, Lynch Jr, and Chen (2010), we estimate mediation models regardless of whether we find that residing in same-sex families significantly correlates with labor market outcomes in our main model. Moreover, we formally test the significance of the mediation indirect effect using the bootstrap method suggested by Preacher and Hayes (2004).

To establish the role of diploma attainment as a mediator, the following conditions should hold: first, young adults from same-sex families should be significantly more likely to graduate from high school than young adults from different-sex families. This was found in Mazrekaj, De Witte, and Cabus (2020) and Kabátek and Perales (2021) in the Netherlands. Second, diploma attainment should be positively and significantly associated with labor market outcomes. Third, the estimated association between residing in same-sex families and labor market outcomes should

be lower in the third regression than in the second one, thus proving that controlling for human capital formation cancels out part of the positive (negative) association between living in same-sex families and subsequent positive (negative) labor market outcomes.

Similarly, to establish the role of family size and birth order as mediators, first, young adults from same-sex families should be significantly more likely to live in small families and be early in the birth order.³¹ Second, small family size and low birth order should be positively and significantly correlated with labor market outcomes. Third, the estimated association between residing in same-sex versus different-sex families should be lower in the third than in the second regression, therefore proving that living in smaller families partly accounts for the positive (negative) association between living in same-sex families and subsequent positive (negative) labor market outcomes.

C.2 Estimation results

To test the human capital/signalling theory and the family formation theory, we perform separate mediation analyses. We show our results for the human capital/signalling theory in Table C.1, while we refer to Table C.2 for the family formation theory. In both Tables C.1 and C.2 we report in Panel A the mediation analysis for the full sample (both born and not born in same-sex families), and in Panel B the mediation analysis for the subsample of young adults born in same-sex families. To save space, in almost all regressions we control for the full set of covariates, but similar results are found also when we control only for individual characteristics.

We start by describing Table C.1. In Panel A and Panel B we show the estimated first (columns 1 and 2) and third (columns 3 to 6) regressions, while we refer to Table 3 and Table 4 for the estimated second regressions. A first requirement to establish mediation is that the key variable of interest is significantly correlated in the predicted direction with the mediator. The first two columns of Table C.1 compare young adults from same-sex families to young adults from different-

31. Note that we estimate the relationship between living in same-sex families, family size and birth order through an OLS model. However, our results are robust to the use of the Poisson specification to account for count data.

sex families on the likelihood of obtaining a diploma at the end of secondary education. Our results suggest that young adults from same-sex families are not differently likely than young adults from different-sex families to graduate from high school. In column 2, where we control for the full set of covariates, the coefficient of interest (namely whether the individual has resided in a same-sex family at least once) is positive but not significant both for the full sample and for the sample of young adults born in same-sex families.³² Given that we find no evidence supporting the relevance of the mediator, our results are suggestive that the human capital/signalling theory does not play a role in shaping young adults' outcomes on the labor market. These results are robust to testing the significance of the indirect effect using the bootstrap method suggested by Preacher and Hayes (2004). As an additional remark, we should note that in the last four columns of Table C.1, we compare labor market outcomes of young adults from same-sex versus different-sex families while additionally controlling for diploma attainment. Findings from these regressions show that young adults from same-sex families do not perform differently than young adults from different-sex families on the labor market also when the model is specified to include a control variable for human capital. The coefficient of interest (i.e. having resided in a same-sex versus a different-sex family) is again not significant and close in size to what estimated in Table 3 and in Table 4, signalling that our results are not sensitive to the choice of not controlling for human capital formation in our main model specification.

We now turn to describe Panel A and Panel B of Table C.2, where we show the estimated first (columns 1 and 2) and second (columns 3 to 6) regressions, while we refer to Table 3 and Table 4 for the estimated third regression. Again, we first check whether the key variable of interest is significantly correlated in the predicted direction with the mediators. Our results show that young adults from same-sex families are significantly more likely to live in small families and to have a low birth order than young adults from different-sex families, thus confirming the relevance of

32. Note that our results are consistent with what reported by Mazrekaj, De Witte, and Cabus (2020), who show that children who resided in a same-sex family at least once perform as well as their peers in different-sex families on diploma attainment.

the mediator. Next, we check whether the associations between family size, birth order and labor market outcomes hold in the predicted direction in our main regressions in Table 3 and Table 4. Our results indicate that family size and birth order, contrarily to our expectations, positively correlate in most cases with labor market outcomes. That is, young adults from larger families and with a higher birth order tend to have higher earnings and are more likely employed in full-time occupations than young adults from smaller families or with a lower birth order. By contrast, we find a negative relationship only between birth order and employment likelihoods. Given that the relationship between the mediators and the dependent variables by majority does not hold in the direction predicted by the theory³³, we exclude that the family formation theory might be a relevant mechanism influencing young adults' performance on the labor market. It should be noted that although using bootstrap as in Preacher and Hayes (2004) to test for the significance of the indirect effect yields a significant indirect effect of family size and birth order, given that the conditions to establish mediation developed by Baron and Kenny (1986) are not satisfied, we refrain from concluding that family size and birth order are mediators in the relationship between having lived in same-sex families and labor market outcomes as predicted by the family formation theory. Besides, the last four columns of Panel B show that regression coefficients are very similar to those reported in Table 3 and Table 4 where family size and birth order are included as additional covariates.

33. We also re-estimate Table 3 by including a categorical variable instead than a discrete variable for birth order (not reported). We construct the latter variable by distinguishing first born, second born, third born, and later than third born. Our results do not show that young adults high in the birth order perform worse on the labor market than young adults low on the birth order, thus confirming the results from our main model specification.

Table C.1: Young adults from same-sex families, human capital theory and labor market outcomes

| <i>Panel A</i> | Diploma attainment | | | Log gross earnings | Log gross hourly wages | Employment | Full-time employment |
|--|---------------------|---------------------|--|---------------------|------------------------|---------------------|----------------------|
| | (1) | (2) | | (3) | (4) | (5) | (6) |
| Young adult has lived in a SSF (1 is yes) | -0.033 (0.018) | 0.011 (0.018) | Young adult has lived in a SSF (1 is yes) | 0.027 (0.040) | 0.004 (0.023) | -0.000 (0.011) | 0.003 (0.023) |
| | | | Diploma attainment | 0.184*** (0.007) | 0.018*** (0.003) | 0.116*** (0.002) | 0.062*** (0.003) |
| Constant | 0.843*** (0.002) | 0.755*** (0.012) | Constant | 9.651*** (0.031) | 2.151*** (0.017) | 0.810*** (0.009) | 0.283*** (0.016) |
| Individual Controls ^a | Yes | Yes | Individual Controls ^a | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | SES controls ^b | Yes | Yes | Yes | Yes |
| Family controls ^c | No | Yes | Family controls ^c | Yes | Yes | Yes | Yes |
| Number of young adults | 206,882 | 206,882 | Number of young adults | 197,136 | 183,234 | 206,882 | 183,234 |
| Number of young adults from SSF | 482 | 482 | Number of young adults from SSF | 449 | 407 | 482 | 407 |
| R-squared | 0.0216 | 0.0254 | R-squared | 0.103 | 0.0760 | 0.0477 | 0.131 |
| <i>Panel B</i> | Diploma attainment | | | Log gross earnings | Log gross hourly wages | Employment | Full-time employment |
| | (1) | (2) | | (3) | (4) | (5) | (6) |
| Young adult has lived in a SSF from birth (1 is yes) | 0.050 (0.032) | 0.051 (0.032) | Young adult has lived in a SSF from birth (1 is yes) | -0.267** (0.098) | -0.099 (0.057) | -0.010 (0.027) | -0.128** (0.048) |
| | | | Diploma attainment | 0.184*** (0.007) | 0.018*** (0.003) | 0.116*** (0.002) | 0.061*** (0.003) |
| Constant | 0.843*** (0.002) | 0.756*** (0.012) | Constant | 9.650*** (0.031) | 2.151*** (0.017) | 0.811*** (0.009) | 0.283*** (0.016) |
| Individual Controls ^a | Yes | Yes | Individual Controls ^a | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | SES controls ^b | Yes | Yes | Yes | Yes |
| Family controls ^c | No | Yes | Family controls ^c | Yes | Yes | Yes | Yes |
| Number of young adults | 206,483 | 206,483 | Number of young adults | 196,765 | 182,896 | 206,483 | 182,896 |
| Number of young adults from SSF | 83 | 83 | Number of young adults from SSF | 78 | 69 | 83 | 69 |
| R-squared | 0.0216 | 0.0254 | R-squared | 0.103 | 0.0761 | 0.0477 | 0.131 |

Notes: The table shows the mediation analyses employed to test the human capital/signalling theory. Panel A reports the results for the full sample of young adults from same-sex families (both born and not born in a same-sex family); Panel B reports the results for the subsample of young adults raised in same-sex families from birth. Columns 1 and 2 report the estimated association between having lived in a same-sex family and diploma attainment; columns 3 to 6 report the estimated association between having lived in a same-sex family and labor market outcomes when controlling for diploma attainment. Diploma attainment is a binary indicator coded 1 if the individual has passed high school exit exams at first attempt, and 0 if the individual has not passed high school exit exams at first attempt or has dropped out of school. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aIndividual controls include sex, ethnicity, birth year fixed effects and municipality at birth fixed effects.

^bSES controls include log household income and parental education.

^cFamily controls include family transitions, family structure, age of mother at birth, family size, and birth order.

Table C.2: Young adults in same-sex families, family formation theory and labor market outcomes

| <i>Panel A</i> | Family size | Birth order | | Log gross earnings | Log gross hourly wages | Employment | Full-time employment |
|--|----------------------|----------------------|--|---------------------|------------------------|---------------------|----------------------|
| | (1) | (2) | | (3) | (4) | (5) | (6) |
| Young adult has lived in a SSF (1 is yes) | -0.219*** (0.043) | -0.216*** (0.034) | Young adult has lived in a SSF from birth (1 is yes) | -0.013 (0.038) | 0.006 (0.020) | -0.001 (0.012) | -0.009 (0.020) |
| Constant | 3.042*** (0.087) | -0.797*** (0.070) | Constant | 9.703*** (0.068) | 2.101*** (0.042) | 0.864*** (0.021) | 0.242*** (0.035) |
| Individual Controls ^a | Yes | Yes | Individual Controls ^a | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | SES controls ^b | Yes | Yes | Yes | Yes |
| Family controls ^{c1} | No | Yes | Family controls ^{c2} | Yes | Yes | Yes | Yes |
| Number of young adults | 239,313 | 239,313 | Number of young adults | 222,200 | 205,767 | 239,313 | 205,767 |
| Number of young adults from SSF | 605 | 605 | Number of young adults from SSF | 544 | 491 | 605 | 491 |
| R-squared | 0.159 | 0.260 | R-squared | 0.0919 | 0.0720 | 0.0169 | 0.127 |
| <i>Panel B</i> | Family size | Birth order | | Log gross earnings | Log gross hourly wages | Employment | Full-time employment |
| | (1) | (2) | | (3) | (4) | (5) | (6) |
| Young adult has lived in a SSF from birth (1 is yes) | -0.327*** (0.082) | -0.652*** (0.069) | Young adult has lived in a SSF from birth (1 is yes) | -0.318** (0.097) | -0.092 (0.047) | 0.025 (0.023) | -0.131** (0.040) |
| Constant | 3.040*** (0.087) | -0.803*** (0.071) | Constant | 9.701*** (0.068) | 2.102*** (0.042) | 0.865*** (0.021) | 0.243*** (0.035) |
| Individual Controls ^a | Yes | Yes | Individual Controls ^a | Yes | Yes | Yes | Yes |
| SES controls ^b | No | Yes | SES controls ^b | Yes | Yes | Yes | Yes |
| Family controls ^{c1} | No | Yes | Family controls ^{c2} | Yes | Yes | Yes | Yes |
| Number of young adults | 238,820 | 238,820 | Number of young adults | 221,761 | 205,368 | 238,820 | 205,368 |
| Number of young adults from SSF | 112 | 112 | Number of young adults from SSF | 105 | 92 | 112 | 92 |
| R-squared | 0.159 | 0.261 | R-squared | 0.0920 | 0.0721 | 0.0168 | 0.127 |

Notes: The table shows the mediation analyses employed to test the family formation theory. Panel A reports the results for the full sample of young adults from same-sex families (both born and not born in a same-sex family); Panel B reports the results for the subsample of young adults raised in same-sex families from birth. Column 1 reports the estimated association between having lived in a same-sex family and family size; column 2 reports the estimated association between having lived in a same-sex family and birth order; columns 3 to 6 report the estimated association between having lived in a same-sex family and labor market outcomes when the full set of covariates does not include family size and birth order. Note that regressions in column 1 and 2 are estimated by means of an OLS model. However, similar results are obtained with a Poisson model. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aIndividual controls include sex, ethnicity, birth year fixed effects and municipality at birth fixed effects.

^bSES controls include log household income and parental education.

^{c1}Family controls include family transitions, family structure, age of mother at birth, family size, and birth order.

^{c2}Family controls include family transitions, family structure, and age of mother at birth.

D Details on parent sector and role model hypotheses

D.1 Parent sector hypothesis

As our sample of same-sex families predominantly consists of female same-sex families, and most women in the Netherlands are employed in part-time rather than in full-time occupations (OECD 2019), it might be argued that young adults from same-sex families may be 'following their mothers' in preferring part-time to full-time occupations, therefore sorting into jobs with high female representation. To test this, we run an additional analysis in which we look at the likelihood that young adults are employed in the same sector in which at least one of their parents was employed while they were in their teen years. To link young adults' sectors to parent sectors, first, we observe the household composition in which young adults were living at age 15. This corresponds to the last year in which we require individuals to have lived with both their parents (or with a parent and a step-parent). Next, we look at the sector history of parents and define a new binary outcome variable for the sample of young adults whose parents were both employed when young adults were aged 15 years old. We code this variable 1 if the young adult (at age 21) is employed in the same sector in which at least one of the parents (or step-parents) was employed when the young adult was aged 15 years old; 0 if the young adult (at age 21) is employed in a different sector than both parents.³⁴ We display our results in Table D.1 below. Our findings show, consistently across model specifications, that young adults born in same-sex families are not statistically different than young

34. Note that we test the robustness of our findings to the definition of our outcome variable as follows. First, given that requiring both parents to be employed restricts the sample size on which our analysis is estimated, we redefine our outcome variable to include young adults for whom one parent was unemployed or inactive when they were in their teen years. More precisely, we re-code our outcome variable as 1 if the young adult is employed in the same sector in which at least one parent (or step-parents) was employed; 0 if the young adult is employed in a different sector than both parents, or if the young adult is employed in a different sector than one parent and the other parent is inactive/unemployed (young adults for whom both parents are unemployed or inactive are not included). Second, we check whether our results are sensitive to the time frame in which we measure parent sectors. That is, we measure parent sectors contemporaneously to young adults' sectors, and re-code the outcome variable accordingly. Such estimations can be found in columns 3 to 8 of Table D.1, and confirm that young adults in same-sex families are not statistically different than young adults in different-sex families to be employed in a sector where at least one of their parents is employed.

adults from different-sex families to be employed in the same sector as their parents. Therefore, we conclude that young adults born in same-sex families do not follow their mothers in choosing the industry in which they will be employed in the future.

Table D.1: Young adults born in same-sex families and intergenerational transmission of sector choices

| Outcome variable: family sector (1 is yes) | Panel A: parent sectors are measured when young adults are 15 years old | | | | Panel B: parent sectors are measured when young adults are 21 years old | | | |
|---|--|----------------------|----------------------|----------------------|--|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Young adult has lived in a SSF from birth (1 is yes) | -0.027 (0.047) | -0.001 (0.047) | 0.006 (0.038) | 0.023 (0.038) | 0.006 (0.053) | 0.029 (0.054) | 0.036 (0.042) | 0.055 (0.042) |
| Sex (1 is male) | -0.093*** (0.002) | -0.092*** (0.002) | -0.063*** (0.002) | -0.063*** (0.002) | -0.096*** (0.002) | -0.095*** (0.002) | -0.069*** (0.002) | -0.069*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | | | | | |
| One NL parent, other Western | -0.026*** (0.004) | -0.024*** (0.004) | -0.020*** (0.003) | -0.019*** (0.003) | -0.025*** (0.004) | -0.023*** (0.004) | -0.020*** (0.003) | -0.018*** (0.003) |
| One NL parent, other non-Western | -0.042*** (0.007) | -0.042*** (0.007) | -0.033*** (0.005) | -0.032*** (0.005) | -0.040*** (0.008) | -0.040*** (0.008) | -0.032*** (0.006) | -0.030*** (0.006) |
| Both parents not NL | -0.038*** (0.004) | -0.058*** (0.004) | -0.042*** (0.003) | -0.045*** (0.003) | -0.029*** (0.005) | -0.052*** (0.005) | -0.036*** (0.003) | -0.045*** (0.003) |
| Log household income | | -0.016*** (0.003) | | 0.011*** (0.001) | | -0.012*** (0.002) | 0.002 (0.001) | 0.002 (0.001) |
| Parental education (1 is diploma SE) | | -0.004 (0.003) | | -0.000 (0.002) | | -0.013*** (0.003) | -0.004 (0.002) | -0.001 (0.002) |
| Family transitions | | -0.019*** (0.003) | | -0.011*** (0.002) | | -0.020*** (0.003) | | -0.014*** (0.002) |
| Family structure (ref: married parents) | | | | | | | | |
| Cohabiting parents | | -0.007* (0.004) | | -0.006* (0.003) | | -0.002 (0.004) | | -0.005 (0.003) |
| Other | | 0.003 (0.014) | | -0.007 (0.010) | | 0.006 (0.016) | | -0.013 (0.010) |
| Age of mother at birth | | -0.004*** (0.000) | | -0.004*** (0.000) | | -0.004*** (0.000) | | -0.004*** (0.000) |
| Family size | | 0.000 (0.002) | | -0.007*** (0.001) | | -0.001 (0.002) | | -0.005*** (0.001) |
| Birth order | | 0.004* (0.002) | | 0.004** (0.001) | | 0.004* (0.002) | | 0.002 (0.001) |
| Constant | 0.303*** (0.044) | 0.603*** (0.054) | 0.238*** (0.033) | 0.237*** (0.037) | 0.305*** (0.047) | 0.575*** (0.053) | 0.188*** (0.033) | 0.307*** (0.034) |
| Birth year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Restricted sample ^a | Yes | Yes | No | No | Yes | Yes | No | No |
| Number of young adults | 118,812 | 118,812 | 182,518 | 182,518 | 113,908 | 113,908 | 181,631 | 181,631 |
| Number of young adults from SSF | 55 | 55 | 87 | 87 | 52 | 52 | 84 | 84 |
| R-squared | 0.0211 | 0.0234 | 0.0132 | 0.0151 | 0.0205 | 0.0230 | 0.0138 | 0.0157 |

Notes: The table shows the estimated associations between living in same-sex families (SSF) from birth and the likelihood of being employed in a sector where at least one parent (or step-parent) is employed. Household composition (i.e. whether young adults were living with both parents, or with a parent and a step-parent) is observed when young adults were aged 15 years old, while parent sectors are observed when young adults were aged 15 years old in Panel A, and 21 years old in Panel B.

^aIn the restricted sample, we require both parents to be employed. Hence, the outcome variable 'family sector' is coded 1 if the young adult is employed in the same sector of (at least) one parent; 0 if the young adult is employed in a different sector than both parents. In the non-restricted sample, we require (at least) one parent to be employed. Hence, the outcome variable is coded 1 if the young adult is employed in the same sector of (at least) one parent; 0 if the young adult is employed in a different sector than both parents, or if the young adult is employed in a different sector than one parent, and the other parent is inactive or unemployed. Note that young adults for whom both parents are inactive or unemployed are not included in the estimations. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

D.2 Role model hypothesis

Mothers and fathers might not perfect substitutes but rather provide different inputs to a child's growth (*role model hypothesis*, Allen 2013). By having two mothers or two fathers, therefore, young adults born in same-sex families might sort into nontraditional sectors because they miss the complementary parenting styles that opposite-sex parents provide. To test this hypothesis, we perform an additional analysis in which we compare young adults born in same-sex families to young adults who experienced the loss of a parent by death during childhood (i.e. before age 16).³⁵ We hypothesize that, if the role model argument plays a role, we should observe similar results – in magnitude and significance – between young adults born in same-sex families and young adults who grew up with a widowed parent, given that young adults from bereaved families also lacked of the parenting style provided by the parent who prematurely passed away. In the estimations, we ensure that young adults from bereaved families are not exposed to parental inputs coming from potential subsequent partner(s) of the widowed parent by focusing on young adults whose live parent did not marry or cohabit again (before young adults were 18 years old) after the loss of the spouse. Further, as we observe parental loss by death only as a reason of interruption of the parents' marriage contract, we restrict our analysis to married families.³⁶ In sum, we create a new categorical variable of interest, which takes value 0 if the young adult lived in an intact married different-sex family until age 16; 1 if the young adult experienced parental loss by death while living in an intact married different-sex family; 2 if the young adult was born and lived throughout childhood in a same-sex family.³⁷ Note that, as young adults from bereaved families may perform poorly on the labor market because of the possibly lower human capital accumulated after family

35. However, our results are robust to choosing a stricter threshold for the age at which young adults experienced parental loss by death. For instance, even when we only consider young adults whose parent passed away in their childhood years (i.e. before age 6), our results are similar to those we present in Table D.2.

36. This means that young adults whose parents never got married are not included in the sample. However, to maximize the number of observation for young adults born in same-sex families, we do not impose such restriction on same-sex families.

37. Note that, by construction, none of the young adults in different-sex and same-sex families included in our main analysis in Table 3 have experienced parental loss by death during childhood. Hence, none of the young adult born in same-sex families that constitute the comparison group in Table D.2 have experienced parental loss by death.

disruption, we include diploma attainment in our model as an additional control variable. We display our results in Table D.2 below. Our results show that young adults from bereaved families have different outcomes on the labor market than young adults from same-sex families. These outcomes do not appear to be consistent with the outcomes estimated in Table 4 for young adults born in same-sex families. Particularly, in our preferred specifications that include the full set of covariates, we find no evidence that young adults from bereaved families sort into nontraditional sectors (column 10). Moreover, contrary to young adults born in same-sex families, we do not find that young adults from bereaved families earn significantly different than young adults from intact, married families, nor that they are full-time employed at different frequencies. Overall, our results are thus suggestive that the role model argument does not play a role in driving the results of Table 4. This might indicate that female same-sex (male same-sex) parents manage to provide male (female) involvement in the life of their children outside the household, confirming recent literature on the topic relative to lesbian families (Goldberg and Allen 2007; Tasker 2010).

Table D.2: Young adults born in same-sex families, parental loss by death, and labor market outcomes

| | Log gross earnings | | Log gross hourly wages | | Employment | | Full-time employment | | Nontraditional industry | |
|---|----------------------|----------------------|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Family structure (ref: intact married different-sex families) | | | | | | | | | | |
| Young adults from bereaved different-sex families | 0.023 (0.017) | 0.004 (0.023) | -0.026* (0.010) | -0.014 (0.012) | -0.029*** (0.005) | -0.015* (0.006) | -0.043*** (0.009) | -0.023 (0.012) | 0.012 (0.010) | -0.009 (0.012) |
| Young adult is born in a same-sex family | -0.428*** (0.099) | -0.320** (0.098) | -0.143* (0.058) | -0.110 (0.057) | -0.013 (0.026) | -0.015 (0.027) | -0.181*** (0.047) | -0.147** (0.048) | 0.151** (0.056) | 0.133* (0.057) |
| Sex (1 is male) | 0.192*** (0.004) | 0.201*** (0.004) | 0.042*** (0.002) | 0.044*** (0.002) | -0.001 (0.001) | 0.001 (0.001) | 0.259*** (0.002) | 0.262*** (0.002) | 0.182*** (0.002) | 0.180*** (0.002) |
| Ethnicity (ref: both parents born in NL) | | | | | | | | | | |
| One NL parent, other Western | -0.169*** (0.008) | -0.149*** (0.008) | -0.051*** (0.004) | -0.045*** (0.004) | -0.013*** (0.002) | -0.010*** (0.002) | -0.073*** (0.004) | -0.066*** (0.004) | 0.035*** (0.004) | 0.032*** (0.004) |
| One NL parent, other non-Western | -0.270*** (0.019) | -0.259*** (0.019) | -0.061*** (0.010) | -0.059*** (0.010) | -0.024*** (0.005) | -0.017*** (0.005) | -0.126*** (0.009) | -0.122*** (0.009) | 0.043*** (0.009) | 0.042*** (0.009) |
| Both parents not NL | -0.289*** (0.008) | -0.438*** (0.008) | -0.034*** (0.004) | -0.078*** (0.005) | -0.037*** (0.002) | -0.024*** (0.002) | -0.191*** (0.004) | -0.238*** (0.004) | 0.019*** (0.004) | 0.049*** (0.004) |
| Log household income | | -0.016*** (0.003) | | 0.003* (0.001) | | 0.005*** (0.001) | | -0.003* (0.001) | | 0.005*** (0.001) |
| Parental education (1 is diploma SE) | | -0.129*** (0.005) | | -0.036*** (0.003) | | 0.007*** (0.001) | | -0.041*** (0.003) | | 0.027*** (0.003) |
| Family transitions | | 0.054** (0.018) | | -0.002 (0.008) | | -0.004 (0.004) | | -0.010 (0.008) | | 0.022* (0.009) |
| Age of mother at birth | | -0.016*** (0.001) | | -0.005*** (0.000) | | -0.001*** (0.000) | | -0.005*** (0.000) | | 0.003*** (0.000) |
| Family size | | 0.037*** (0.002) | | 0.014*** (0.001) | | -0.002** (0.001) | | 0.013*** (0.001) | | -0.007*** (0.001) |
| Birth order | | 0.019*** (0.003) | | 0.009*** (0.002) | | 0.001 (0.001) | | 0.003* (0.002) | | -0.002 (0.002) |
| Diploma attainment (1 is yes) | | 0.189*** (0.007) | | 0.019*** (0.003) | | 0.113*** (0.002) | | 0.062*** (0.004) | | -0.019*** (0.004) |
| Constant | 9.134*** (0.081) | 9.580*** (0.087) | 2.021*** (0.053) | 2.083*** (0.055) | 0.941*** (0.020) | 0.823*** (0.022) | 0.108* (0.043) | 0.228*** (0.046) | 0.155*** (0.042) | 0.048 (0.045) |
| Birth year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Municipality at birth FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of young adults | 165,728 | 165,728 | 154,158 | 154,158 | 173,464 | 173,464 | 154,158 | 154,158 | 154,158 | 154,158 |
| Number of young adults from SSF | 78 | 78 | 69 | 69 | 83 | 83 | 69 | 69 | 69 | 69 |
| Number of young adults from bereaved families | 2,239 | 2,239 | 2,058 | 2,058 | 2,427 | 2,427 | 2,058 | 2,058 | 2,058 | 2,058 |
| R-squared | 0.0911 | 0.109 | 0.0729 | 0.0784 | 0.0124 | 0.0471 | 0.132 | 0.138 | 0.0518 | 0.0538 |

Notes. This table compares the labor market performance of young adults from intact, married families, young adults from married families who experienced parental loss by death before age 16, and young adults born in same-sex families. Young adults whose parents were never married (or were never in a registered partnership) are excluded from the sample. However, to retain the highest number of observations of young adults born in same-sex families, we do not impose such restriction on same-sex families. Robust standard errors in parenthesis. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

E Details on coefficient stability test

E.1 Details on the methodology

To test the sensitivity of our results to omitted variable bias, we construct the bias-adjusted estimator β^* developed by Oster (2019), thereby re-estimating the association between living in same-sex families and labor market outcomes. Then, we compare β^* to the coefficient $\hat{\beta}_1$ obtained in Equation 1.

We construct β^* using values of coefficients $(\tilde{\beta}, \hat{\beta})$, R-squared $(\tilde{R}, \hat{R}, R_{max})$, and the degree of selection δ . More formally:

$$\beta^* \approx \tilde{\beta} - \delta [\hat{\beta} - \tilde{\beta}] \frac{R_{max} - \tilde{R}}{\tilde{R} - \hat{R}} \quad (2)$$

where the pair $(\hat{\beta}, \hat{R})$ represents the key coefficient of interest and the R-squared resulting from the regression in which no control variable is included (*uncontrolled regression*), the pair $(\tilde{\beta}, \tilde{R})$ represents the key coefficient of interest and the R-squared resulting from the regression where all observed control variables are included (*controlled regression*), δ is the degree of selection, and R_{max} is the unknown R-squared that would result from the regression of the dependent variable on the full set of controls (observables and unobservables). While the set of parameters $(\tilde{\beta}, \tilde{R}, \hat{\beta}, \hat{R})$ is observed, δ and R_{max} are unknown and need to be specified. By defining bounds for δ and R_{max} , in turn, we can construct bounds for the estimator β^* .

Oster (2019) argues that one bound for β^* is $\tilde{\beta}$ (the coefficient from the controlled regression) that is obtained when the degree of selection δ is zero, or equivalently, when R_{max} is \tilde{R} (meaning that only the observed variables are important to explain the relationship between the key regressor of interest and the dependent variable, or, equivalently, that the R-squared from the regression with observables and unobservables is the same as the R-squared from the regression with only observables). She also argues that an appropriate cutoff for δ is $\delta = 1$, given that control variables are intentionally chosen to capture the most important determinants of the dependent variables,

and it is therefore unlikely that unobserved variables are more important than observed variables in determining the outcome (which would be the case for $\delta > 1$). Turning to bounds on R_{max} , as mentioned, R_{max} cannot be estimated but a natural upper bound might seem to be $R_{max} = 1$, i.e. the R-squared of a regression where the dependent variable is fully explained by the set of controls (observed and unobserved). However, as explained by Oster (2019), it is unlikely that in empirical applications the variance of the outcome variable can be fully explained by the controls (e.g. due to measurement error in the dependent variable). Therefore, R_{max} is likely to be lower than 1. Oster (2019) suggests that an appropriate value for R_{max} is $1.3\tilde{R}$, where \tilde{R} is the R-squared from the controlled regression.

In sum, given the estimator $\beta^*(R_{max}, \delta)$ and given bounding values for δ and R_{max} , a bounding set Δ_s for the effect of residing in same-sex families on labor market outcomes can be constructed. To define the unknown parameters, we will follow Oster's suggestions and set $\delta = 1$ and $R_{max} = 1.3\tilde{R}$.³⁸ Namely, $\Delta_s = [\tilde{\beta}, \beta^*(1.3\tilde{R}, 1)]$. To derive the robustness of our results, first, we will check whether the constructed set of bounds Δ_s includes zero. Second, we will check whether the identified bounding set Δ_s falls in the confidence interval on $\tilde{\beta}$.

E.2 Estimation results

In this section, we show the robustness of our findings to the coefficient stability test developed by Oster (2019). We show our results in Table E.1 below,³⁹ where we first report, for each outcome variable (including industry choices), the key coefficient of interest previously obtained from the controlled regressions in Table 3 and Table 4 (column 1). Then, we report the identified bounding set for the association of living in same-sex families and labor market outcomes, setting $R_{max} = 1.3\tilde{R}$, and $\delta = 1$ (column 2). Further, we report whether the identified bounding set excludes zero

38. However, we also check whether our results are robust to assuming a higher degree of selection on observable and unobservables, i.e. $\delta = 2$. Our results are consistent with what we obtain when δ is equal to 1 (see Section E for more details).

39. Note that the structure of Table E.1 follows an application of Oster's coefficient stability test by Hener, Rainer, and Siedler (2016).

(column 3), and whether it is included in the 95% confidence intervals estimated for the regression coefficient $\tilde{\beta}$ (column 4). We test the sensitivity of our results both for the main sample of young adults who have lived in a same-sex family for at least one year (*Panel A*), and for the subsample of young adults raised by same-sex parents from birth until age 15 (*Panel B*).

Table E.1 reveals that the coefficients estimated in our main analyses are robust to omitted variable bias. In Panel A, all identified bounding sets are included in the 95% confidence intervals reported in column 1. Moreover, although the identified sets for log gross earnings, employment, full-time employment, and nontraditional industries do not exclude the zero, we note that the identified bounding sets are close to zero in column 2, which might suggest a zero association of living in same-sex families on these outcome variables. In Panel B, we also note that the identified bounding sets appear to be narrow and close in magnitude to the coefficients reported in column 1. Overall, the bounding analysis confirms that young adults born in same-sex families tend to have lower earnings, are less involved in full-time occupations and more employed in nontraditional industries than young adults from different-sex families. On a final note, we test whether our bounds are robust to choosing a higher degree of selection (namely $\delta = 2$, which corresponds to assuming that the unobservables are twice as important as the observables in explaining the relationship between living in same-sex families and subsequent labor market outcomes), and show the bias-adjusted estimator so obtained in column 5. Findings from column 5 suggest that our results are robust to a more restrictive assumption on δ , as all bounding sets constructed with $\delta = 2$ are included in the 95% confidence intervals reported in column 1, and almost all of them exclude zero.

Table E.1: Young adults from same-sex families, labor market outcomes, and coefficient stability

| Dependent variable | Controlled Regression $\tilde{\beta}$, [95% CI] (1) | Identified Set $[\tilde{\beta}, \beta^*[1.3\tilde{R}, 1]]$ (2) | Exclude zero? (3) | Within Conf. Interval? (4) | Bias-adjusted β^* with $\delta = 2$ (5) |
|---|--|--|-------------------------|----------------------------------|---|
| <i>Panel A: Young adult has lived in same-sex family</i> | | | | | |
| Log gross earnings | -0.0029 [-0.0763, 0.0706] | [-0.0029, 0.0275] | No | Yes | 0.0585 |
| Log gross hourly wage | 0.0097 [-0.0280, 0.0474] | [0.0097, 0.0158] | Yes | Yes | 0.0220 |
| Employment | -0.0016 [-0.0224, 0.0191] | [-0.0016, 0.0070] | No | Yes | 0.0159 |
| Full-time employment | -0.0066 [-0.0466, 0.0335] | [-0.0066, 0.0093] | No | Yes | 0.0254 |
| Nontraditional industry | 0.0097 [-0.0298, 0.0491] | [0.0097, -0.0007] | No | Yes | -0.0113 |
| <i>Panel B: Young adult has lived in same-sex family from birth</i> | | | | | |
| Log gross earnings | -0.2949 [-0.4596, -0.1302] | [-0.2949, -0.2394] | Yes | Yes | -0.1837 |
| Log gross hourly wage | -0.0818 [-0.1675, 0.0039] | [-0.0818, -0.0685] | Yes | Yes | -0.0553 |
| Employment | 0.0251 [-0.0223, 0.0725] | [0.0251, 0.0230] | Yes | Yes | 0.0349 |
| Full-time employment | -0.1249 [-0.2161, -0.0337] | [-0.1249, -0.1165] | Yes | Yes | -0.1081 |
| Nontraditional industry | 0.1496 [0.0598, 0.2395] | [0.1496, 0.1293] | Yes | Yes | 0.1088 |

Notes: Following Oster (2019) (and Hener, Rainer, and Siedler (2016)), the table shows bounding sets for the association between living in same-sex families and labor market outcomes. The table reports bounding sets for both the main sample of young adults from same-sex families (Panel A) and for the subsample of young adults raised by same-sex families from birth (Panel B). For each outcome variable, we check whether the identified bounding set includes the zero and whether it is included in the confidence interval of the coefficient estimated in the main regression. Bounding sets are constructed by setting $R_{max} = 1.3\tilde{R}$, and $\delta = 1$, although we also check whether our results are robust to the more restrictive choice of δ equal to 2 (see Section 5.4 for more details on the role of R_{max} and δ). Column 1 reports OLS coefficients from our main analysis when the full set of covariates (sex, ethnicity, log household income, parental education, family transitions, family structure, family size, age of mother at birth, birth order, birth year fixed effects and municipality at birth fixed effects) is included.

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Obtaining access to the data from Statistics Netherlands

The data used in this study include detailed information on the entire population of the Netherlands and are therefore highly confidential. To access these data, a researcher should submit a proposal that outlines the objectives of the project as well as what datasets the researcher deems necessary. The full data catalogue can be found here: <https://www.cbs.nl/en-gb/our-services/customised-services-microdata/microdata-conducting-your-own-research/microdata-catalogue>. Each project outside the European Union must include a researcher who is affiliated with a research institution within the Netherlands and most of the individual data files are solely described in Dutch. The costs of the projects vary and are mostly dependent on the duration of the project, the number of researchers, and the data files requested. More information about the costs can be found here: <https://www.cbs.nl/en-gb/our-services/customised-services-microdata/microdata-conducting-your-own-research/services-and-costs>.

Once the project is approved, the researchers must pass a test provided by Statistics Netherlands that includes 20 questions on what actions are allowed regarding the privacy issues. Upon passing the test, the authorized researchers can access the data both within and outside the Netherlands through a highly secured remote-access environment. Note that the results can only be used outside the environment once they have been approved and inspected by Statistics Netherlands for potential privacy breaches. For additional questions about the data access, please contact Statistics Netherlands at the following e-mail address: microdata@cbs.nl. Interested readers can also contact the corresponding author for material to replicate this study. We would be happy to provide assistance and Stata code necessary for replication.

