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The realization of short-term fertility intentions among immigrants and children of immigrants in Norway and Sweden

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## Abstract

Immigrant fertility and the realization of fertility intentions are two topics of considerable interest in contemporary demographic research. Yet, very few studies have so far explored the relationship between intended and actual fertility specifically among immigrants and their children. Using data from the Norwegian and Swedish Generations and Gender Surveys, this study analyzes how both positive and negative short-term fertility intentions stated by both men and women at Wave 1 in 2007/08 (Norway) or 2012/13 (Sweden) had been realized at register-based follow-ups three years after interview. Results show that realization patterns differ significantly between natives and certain immigrant groups. Both first- and second-generation women of non-Western origin are less likely than native women to realize a positive fertility intention. Western-origin men are instead more likely than native men to realize a positive intention and also less likely to have an unintended birth. These findings contribute new insights to the understanding of both immigrants' adaptation to the fertility regime of the destination country and patterns of intention realization in immigrant receiving societies.

Keywords: immigrants, fertility intentions, realization, Generations and Gender Survey

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#### **1. Introduction**

The concept of adaptation is central to interest in immigrant fertility. The degree to which immigrants adjust their childbearing to patterns in the destination country serves as an indicator of social integration (Milewski & Mussino, 2018) and determines the long-term impact of immigration on both population growth and the demographic composition of destination societies. Earlier research has shown that immigrants' fertility behavior often tends to approach native patterns both by time since migration within the first generation and across immigrant generations (e.g. Andersson, 2004; Andersson et al., 2017; Kulu et al., 2017; Milewski, 2007, 2010b; Mussino & Strozza, 2012; Pailhé, 2017). However, recognizing that attitudinal change represents adaptation at a deeper level compared to merely behavioral change, a growing number of studies have extended the analysis of fertility differentials between immigrants and natives to examinations of immigrants' childbearing preferences (Carlsson, 2018; Holland & De Valk, 2013; Kraus & Castro-Martín, 2018; Mussino & Ortensi, 2018; Puur et al., 2018; De Valk, 2013). Yet, despite a rich body of literature on the realization of fertility intentions in countries with large immigrant populations (e.g. Balbo & Mills, 2011; Beaujouan et al., 2019; Dommermuth et al., 2015; Hanappi & Buber-Ennser, 2017; Kapitány & Spéder, 2012; Kuhnt & Trappe, 2016; Régnier-Loilier & Vignoli, 2011; Rinesi et al., 2011; Spéder & Kapitány, 2014; Toulemon & Testa, 2005), very few earlier studies have explored differences in realization patterns by immigrant background or ethnicity (see Hartnett, 2014, for an exception). This research gaps exists even though exploring how realization varies across groups can contribute new information on adaptation processes in immigrant fertility that cannot be attained from studying either fertility behavior or fertility preferences alone.

Realization differences between groups of a population should be attributable to differences either in the ability or in the motivation to translate a fertility intention into actual childbearing. Such differences between groups suggest variation either in life chances or in attitudes to family planning and the meaning attached to a reported fertility intention, meaning the presence of realization differences between immigrants and natives should point to immigrants' incomplete adaptation to the fertility regime of the destination country. Milewski (2010a) has pointed out that immigrants' behavioral convergence to fertility patterns in the destination country may reflect two different types of adaptation process. First, behavioral convergence may result from immigrants' cultural and normative assimilation to the destination society, so that preferences and realization patterns are similar for immigrants and natives.

related to the institutional context of the destination country, while fertility preferences and realization patterns could remain different from those of natives. These two possible trajectories of convergence cannot easily be disentangled when analyzing actual fertility alone. Similarly, studying fertility preferences alone cannot reveal to what extent attitudinal similarities between immigrants and natives translate into behavioral similarities, since both the exposure and reaction to hindering and enabling factors may differ between social groups.

This study uses data from the Wave 1's and register-based follow-ups of the Norwegian and Swedish Generations and Gender Surveys (GGS) to examine how the realization of both positive and negative short-term fertility intentions differs between immigrants and natives in Norway and Sweden. The data setup with register-based follow-ups to initial GGS interviews, which is unique to Norway and Sweden within the Generations and Gender Program, minimizes attrition from interview to follow-up compared to using successive survey waves. This is especially advantageous for studying intention realization among population subgroups with a limited number of survey respondents, such as immigrants. For all steps of the analysis, the Norwegian and Swedish samples are merged and examined jointly, which is possible given the far-reaching institutional, cultural, and demographic similarities between the two countries. Analyses are conducted separately for men and women and distinguish among immigrants between those of Western and non-Western origin and, when allowed by the sample size, also between the first and second generation (hereafter referred to as the G1 and G2).<sup>1</sup>

This study contributes new understanding to two topics of considerable interest in contemporary demographic research: adaptation processes in immigrant fertility and the realization of fertility intentions in countries with large immigrant populations. Whereas Hartnett (2014) studies differences between White and Hispanic Americans in meeting life-time fertility intentions, the present study is the first to examine realization differences between immigrants and natives outside the United States and the first overall to analyze differences in realizing short-term fertility intentions. The study examines realization patterns among both male and female immigrants, whereas earlier research on immigrant fertility has focused primarily on patterns among women. The study also demonstrates the value of analyzing the realization of both positive and negative intentions, whereas earlier research has often only

<sup>&</sup>lt;sup>1</sup> The following terminology on immigrant origin and generational status is used in this paper: natives = nativeborn individuals with two native-born parents, G1 = foreign-born individuals, G2 = native-born individuals with at least one foreign-born parent, Western origin = Western Europe (EU15 + EFTA), the US, Canada, Australia, and New Zealand), non-Western origin = all other countries, including most former Eastern Bloc members of the EU. See section 4.2 for further information on the categorization of immigrant origin and generational status.

explored the realization of positive intentions (e.g. Dommermuth et al. 2015; Hanappi & Buber-Ennser 2017; Kapitány & Spéder 2012; Spéder & Kapitány 2014).

#### 2. The Norwegian and Swedish setting

The analyses of this study combine the Norwegian and Swedish GGS data to examine realization patterns in the two countries jointly. This approach is facilitated by the far-reaching institutional, cultural, and demographic similarities between the two countries. For example, both Norway and Sweden are classified as social democratic welfare states in Esping-Andersen's welfare state typology (e.g. Esping-Andersen, 1990), with a strong secular-rational and self-expression value orientation in the Inglehart-Welzel cultural map of the world (e.g. Inglehart & Welzel, 2005: 63). Both countries are characterized by high levels of economic development, labor-force participation, and gender equality. The Scandinavian countries in general have been considered forerunners in demographic change, manifested for example in the postponement of parenthood and in the decoupling of marriage and childbearing. The total fertility rate was stable slightly below replacement level in both Norway (1.88-1.96) and Sweden (1.85-1.91) during the period of observation, i.e. 2007-2011 in Norway and 2012-2016 in Sweden (Statistics Norway, 2020a; Statistics Sweden, 2020a).

Both Norway and Sweden have relatively large immigrant populations of heterogeneous origin, generational status, and reasons for migration. There are notable similarities between the two countries regarding immigrants' origin: At the time when the GGS Wave 1 interviews were completed (2008 in Norway, 2013 in Sweden), Bosnia & Herzegovina, Denmark, Germany, Iran, Iraq, Poland, and Somalia were all among the top ten most common origin countries for the G1 in both Norway and Sweden (Statistics Norway, 2020b; Statistics Sweden, 2020b).<sup>2</sup> Sweden has a longer history of large-scale immigration, meaning its G2 population is larger than that of Norway. Since both Norway and Sweden have attracted labor migrants as well as refugees and family migrants for many decades, different reason-for-migration backgrounds are well-represented within both the G1 and G2 in both countries. Whereas immigrants of Western origin are predominately labor or family migrants, immigrants of non-Western origin may be either refugee, labor or family migrants.

<sup>&</sup>lt;sup>2</sup> The other top-ten most common origin countries were Pakistan, Sweden, and Vietnam in Norway and Finland, Turkey, and Yugoslavia in Sweden.

#### 2.1. Immigrant fertility in Norway and Sweden

Earlier research on immigrant fertility in Norway and Sweden has found that G1 fertility often converges towards native patterns by time since migration, while the extent and tempo of such change may vary between origin groups (Andersson, 2004; Statistics Sweden, 2014; Tønnessen, 2014). Similar observations have been made in other European countries (e.g. Milewski, 2007; Mussino & Strozza, 2012). Among the G2, fertility has been found to be, on average, similar or slightly lower than that of natives in both Norway (Tønnessen 2014) and Sweden (Andersson et al., 2017; Scott & Stanfors, 2011; Statistics Sweden, 2010), as well as in other European countries (e.g. Guarin Rojas et al., 2018; Kulu & Hannemann, 2016; Kulu et al., 2017; Milewski, 2007, 2010b; Van Landschoot et al., 2017). However, similar to the G1, aggregated patterns hide considerable variation between origin groups.

Similar to findings on fertility behavior, Carlsson (2018) finds that the propensity to state a positive short-term fertility intention among immigrants and children of immigrants in Sweden varies considerably among origin groups. Comparing Carlsson's (2018) findings on fertility intentions among specific immigrant groups in Sweden to findings on actual fertility among the same groups suggests the existence of realization differences. While fertility behavior of the Middle Eastern G2 is in-between the G1 and natives (Andersson, 2004; Andersson et al., 2017; Scott & Stanfors, 2011), Carlsson (2018) finds intentions to be elevated to a similar extent for both the G1 and G2. This suggests that the Middle Eastern G2 may be less likely than native Swedes to realize a positive intention. Among individuals of Eastern European origin, there are indications that actual fertility is lower than among natives in both the G1 and G2 (Andersson, 2004; Scott & Stanfors, 2011), while intentions are elevated among the G1 and similar to natives in the G2 (Carlsson, 2018). This suggests that both the G1 and G2 of Eastern European origin are less likely than native Swedes to realize a positive intention. For individuals of Western origin, Carlsson (2018) finds fertility intentions to be similar to natives. For most Western origin groups in Sweden, particularly those that are numerically most wellrepresented, fertility behavior is also similar to that of natives (Andersson, 2004; Andersson et al., 2017; Statistics Sweden, 2010; 2014; Scott & Stanfors, 2011). This suggests that realization patterns do not differ between natives and immigrants of Western origin.

# **3.** Possible reasons for realization differences between immigrants and natives

In examining possible differences in realization patterns across groups within society, it seems reasonable to assume that such differences may be produced either by differences in the actual or perceived control over realization or by differences in the motivational strength to realize a reported intention.

#### 3.1. Control over realization

The Theory of Planned Behavior (TPB) as applied to fertility research (see Ajzen & Klobas, 2013) is the most influential theoretical model to guide research on the formation of fertility intentions and their realization over the last decades (e.g. Dommermuth et al., 2015; Kuhnt & Trappe, 2016; Mencarini et al., 2011; Spéder & Kapitány, 2015). According to the TPB, an individual's prospects of realizing an intention should only depend on his or her actual and perceived control over realization. Thus, compositional differences in characteristics that affect control could be an explanation for realization differences between immigrants and natives. Earlier research has identified a large set of demographic, socioeconomic, and other factors that may either enable or hinder realization.

Realization of positive intentions is higher among individuals in stable and co-residential partnerships and among the higher educated but lower among older individuals, particularly women above age 35, while the effect of parity is important but varies across countries (Balbo & Mills, 2011; Beaujouan et al., 2019; Dommermuth et al., 2015; Hanappi & Buber-Ennser, 2017; Kapitány & Spéder, 2012; Kuhnt & Trappe, 2016; Régnier-Loilier & Vignoli, 2011; Rinesi et al., 2011; Spéder & Kapitány, 2009; 2014; Toulemon & Testa, 2005). Having a female partner above age 35 reduces the likelihood of realizing a positive intention (Kapitány and Spéder, 2012), as does disagreement between partners about what type of fertility intention to pursue (Kuhnt & Trappe, 2016) and being unemployed (Kuhnt & Trappe, 2016; Toulemon & Testa, 2005). While realization of a positive intention has been found to be higher among parttime employed than among full-time employed women in Germany (Kuhnt & Trappe, 2016) and in couples where one partner is economically inactive in France (Toulemon & Testa, 2005) and Italy (Régnier-Loilier & Vignoli, 2011), these patterns are less likely to apply to the relatively gender egalitarian and individualistic majority cultures of Norway and Sweden. Although it is possible that other gender role arrangements are practiced by certain immigrant groups, earlier research has shown that the effect of labor market status on fertility behavior is very similar for natives and various immigrant groups in Sweden (Andersson & Scott, 2005, 2007; Lundström & Andersson, 2012). When it comes to the propensity to have an unintended birth (i.e. failing to realize a negative intention), earlier research has shown that the risk is elevated among individuals in a co-residential partnership, parents, younger individuals, and the unemployed (Kuhnt & Trappe, 2016; Spéder & Kapitány, 2009).

For cultural or other reasons, the effect of some of these factors on control over realization may vary between immigrants and natives, meaning interaction effects should be considered for the analyses of this study. First, the positive effect of educational attainment on realization prospects may be weaker among non-Western immigrants than among natives if the challenges of combining a labor market career and family are particularly pronounced for individuals from disadvantaged minorities. There are findings suggesting that the negative association between educational attainment and first-birth transition rates is stronger among the G1.5 and G2 of non-Western origin than among natives and the G1.5 and G2 of Western origin in Sweden, a pattern that seems to apply especially to women (Scott & Stanfors, 2011).<sup>3</sup> Second, the effect of partnership status may vary between natives and some immigrant groups due to possible differences in the status ascribed to marriage and cohabitation. Childbearing within nonmarried cohabiting unions is widely accepted in the majority cultures of Norway and Sweden, which could lead to smaller differences in realization patterns by type of partnership among natives than among immigrants. While it has been shown that married individuals are more likely than cohabiting individuals to realize a positive intention in France (Régnier-Loilier & Vignoli, 2011), Hungary (Spéder & Kapitány 2009), and Italy (Rinesi et al., 2011), the opposite holds in Norway, at least among the childless (Dommermuth et al. 2015). Third, the relative influence of the male and female partner over fertility decisions in case of disagreement may vary across cultural contexts. In Sweden, disagreeing heterosexual couples at parities above zero are more likely to have a child if it is the woman who has the positive intention (Duvander et al., 2019). It is possible that an opposite pattern where men have greater influence over family formation decisions is present within many non-Western immigrant communities that originate from cultural contexts that are more patriarchal and collectivistic than those of Norway and Sweden (Kane et al., 2016; Oppenheim Mason & Smith, 2000; UNFPA, 2020).

Due to data restrictions, this study can only control for characteristics that are known at the time of interview. However, a reported fertility intention that stretches three years into the future does not only depend on control at the time of reporting but also on individuals'

<sup>&</sup>lt;sup>3</sup> The G1.5 refers to the subset of the G1 who immigrated as children. Scott & Stanfors (2011) define the 1.5 as individuals who immigrated to Sweden prior to their 11<sup>th</sup> birthday.

expectations of future control. If some groups experience unexpected changes to relevant characteristics more often than other groups, this could lead to realization differences that are not captured by controlling for characteristics at interview. There are reasons to expect natives to be better able than immigrants to predict their future life courses and therefore better able to state a realistic fertility intention. Natives may tend to have a more stable financial, housing, and labor market position than many groups of immigrants and may also have a general knowledge advantage regarding the opportunity structure related to childbearing in the destination country. In the Norwegian and Swedish context, such differences should be more likely between natives and non-Western immigrants, who, compared to Western immigrants, are both more culturally distant from natives and more often socioeconomically disadvantaged. The ability to predict future control is a possible explanation for group differences in the realization of both positive and negative intentions, since individuals who are less able to predict their future life course trajectories may more often than others experience "negative" changes to control that hinder the realization of positive intentions but may also more often experience "positive" changes that enable them to reconsider a negative intention.

The TPB model distinguishes between the influences of actual and perceived control on realization. While the disentanglement of these interrelated factors is not possible in this study, group differences in the subjective evaluation of the impact of enabling and hindering factors may be considered a reasonable explanation for realization differences that are not captured by controlling for "objective" measures of actual control. Spéder and Kaiptány (2014) have suggested that lower realization in Eastern than in Western Europe can be explained by a greater degree of risk aversion in Eastern Europe brought about by the sweeping societal transformations associated with the collapse of the communist regimes.

#### 3.2. Motivational strength associated with the reported intention

Another possible explanation for realization differences between groups that remain when controlling for demographic and socioeconomic characteristics at interview is differences in the respondent's motivation to realize the reported intention. While this aspect of intention formation and realization is not well captured by the TPB framework, motivational strength is likely to affect the prospects of realization beyond actual and perceived control. An important reason for why motivational strength may differ between respondents is variation in the degree of seriousness with which the intention question is answered. It has been stressed that a reported intention may represent a well-calibrated plan to act upon a true, underlying preference for some respondents, while others construct their intention at interview (Bachrach & Morgan,

2013; Ní Bhrolchaín and Beaujouan, 2019). Presumably, the motivation to follow through on a reported intention is greater in the former case than in the latter, meaning that realization should also be higher. There are reasons to believe that differences in the meaning attached to a reported intention may exist between natives and especially non-Western immigrants in Norway and Sweden, which could contribute to explaining differences in realization patterns between the groups.

The fact that non-Western immigrants often originate from societies that are more collectivistic and religious than the relatively individualistic and secular majority cultures of Norway and Sweden may affect realization differences relative to natives in several ways. First, religiosity and a family-oriented socialization experience could lead to higher realization if it causes individuals to prioritize family formation over other life goals. Earlier research has found that having a larger number of siblings is associated with a smaller gap between desired and achieved family size (Adsera, 2006) and that religiously affiliated individuals are more likely than non-affiliated individuals to realize a positive fertility intention (Kuhnt & Trappe, 2016; Spéder & Kapitány, 2009). However, there are also reasons to expect opposite patterns. The practice of fertility control and the normative acceptance of family planning may correspond better with a secular and individualistic worldview than with a more religious and collectivistic worldview. This could mean that natives are more likely than non-Western immigrants to report fertility intentions that are grounded in an underlying fertility preference, which should make them more realistic. It has been shown that non-numeric fertility desires of the type "up to God" and "don't know" are more common among certain G1 non-Western origin groups than among other G1 groups (Mussino & Ortensi, 2018), suggesting a fatalistic attitude to family planning. It is also possible that greater influences from pronatalist ideology among non-Western immigrants could lead to a social desirability bias towards reporting a positive fertility intention (or against reporting a negative intention).

#### 4. Research design

#### 4.1. Data

This study uses data from the Wave 1's and register-based follow-ups of the Norwegian and Swedish Generations and Gender Surveys (GGS). The Norwegian and Swedish registerbased follow-ups contain demographic and socioeconomic information about respondents of the first wave both before and after the time of interview and are unique to the Generations and Gender Program. Data on births to Wave 1 respondents stretch from the time of interview up until December 31 of the calendar year coming three years after the calendar year of the last Wave 1 interviews. This means that birth histories of every respondent who did not emigrate or die are available for at least three years following the time of interview. Thus, compared to earlier studies on the realization of fertility intentions that rely on successive survey waves, an important advantage of the approach of the present study is that attrition from initial interview to follow-up is largely avoided (cf. Buber-Ennser, 2014; Kapitány & Spéder, 2012; Kuhnt & Trappe, 2016). Any potential errors associated with the self-reporting of birth histories are also avoided. Both the Norwegian and Swedish GGS are based on nationally representative samples of both men and women, aged 18-79 years. Interviews for Wave 1 were conducted between January 2007 and October 2008 in Norway and between April 2012 and April 2013 in Sweden, yielding a total number of respondents of 14,884 in Norway (61 % response rate) and 9,688 in Sweden (54 % response rate). Information at Wave 1 was collected by Statistics Norway and Statistics Sweden respectively, via telephone interviews, register data, and a follow-up postal/online questionnaire (Lappegård & Veenstra, 2010; Thomson et al., 2015).

The sample used in this study consists of 9,693 individuals (5,859 from the Norwegian and 3,834 from the Swedish GGS), including 4,604 women 18-44 years old at the Wave 1 interview and 5,089 men who were either single and 18-49 years old or had a female partner 18-44 years old at the Wave 1 interview. Out of the 10,714 respondents who were asked at the Wave 1 interview whether they intended to have a/another child within the next three years, 1,021 individuals are excluded from the analyses for any of the following reasons. First, individuals who either provided a "don't know" response or refused to answer the intention question are excluded since they are too few to be analyzed as a separate category, given the study's primary focus on realization patterns among relatively small population subgroups. For the sample as a whole, the propensity of having a child within 36 months of interview among "don't know" respondents is in-between the propensities of respondents with positive and negative intentions, meaning that the "don't know" respondents are not easily merged with any of these two groups. Second, individuals who had a child less than six months after interview are excluded since a criterion for being asked the intention question was that the respondent or the respondent's partner was not currently pregnant. Six months is chosen as the cutoff point instead of nine months since it is possible that respondents still do not know about their or their partner's pregnancy in its early stages and due to the possibility that births were preterm. Third, individuals with a partner who was physically unable to have children are excluded, since they were not supposed to answer the intention question. Individuals are also excluded if they emigrated or died within 36 months of interview, if they do not meet the age criteria for being asked the intention question in the other country's GGS, if they have missing information on their migration histories, and if they have a same-sex partner. Individuals who intend to adopt are not included since neither the Norwegian nor the Swedish GGS allow this to be separated from the intention to take a foster child, which is not easily compared to having biological or adoptive children.

#### 4.2. Variables

The dependent variable of this study is a binary indication of whether or not an individual had a child during the 36 months that follow the interview. In order to be able to interpret what a birth means in terms of realization, the study distinguishes among respondents by intention type, which may be either positive (i.e. a yes intention) or negative (i.e. a no intention). While the Norwegian GGS only provided respondents with a yes or no alternative to the survey question on their short-term fertility intention, the Swedish GGS offered four response alternatives: definitely yes, probably yes, probably no, and definitely no. In order to allow for joint analyses of the Norwegian and Swedish samples, the two yes and the two no categories are collapsed to fit the binary categorization of the Norwegian GGS. This difference between the Norwegian and Swedish GGS surveys means that responses on short-term fertility intentions are not entirely comparable, since it is likely that the probably yes/no categories pick up some of the uncertainty that would go into the don't know category in the absence of these alternatives. However, the share of refusals and don't know responses is low in both countries (6.3 % in Norway, 2.3 % in Sweden), meaning this effect is of limited importance.

The main explanatory variable is immigrant background, with the following possible categories: *native*, *Western G1*, *non-Western G1*, *Western G2*, and *non-Western G2*. Western origin refers to the EU15,<sup>4</sup> the EFTA countries,<sup>5</sup> the US, Canada, Australia, and New Zealand, with non-Western origin referring to all other countries. The G1 includes all foreign-born individuals, while the G2 includes native-born individuals with either one or two foreign-born parent(s). Individuals with one parent of Western and one parent of non-Western origin are categorized according to the origin of the mother. Due to sample size considerations, the G1 and G2 categories are combined within each origin group for some steps of the analysis, so that the immigrant background variable has the following three categories: *natives, Western origin* (G1+G2), and *non-Western origin* (G1+G2).

<sup>&</sup>lt;sup>4</sup> EU15 = Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg,

Netherlands, Portugal, Spain, Sweden, and the United Kingdom

<sup>&</sup>lt;sup>5</sup> EFTA = Iceland, Liechtenstein, Norway, and Switzerland

The following control variables are used for the main analyses: partnership status (married, cohabiting, non-cohabiting/single), parity (0, 1, 2 or more children), age (continuous), age squared, employment status (full-time, other), educational attainment (university, no university), and the intention of the partner (agrees, disagrees). All variables are measured at the time of the Wave 1 interview. See Appendix Tables 1 and 2 for descriptive statistics.

#### 4.3. Method and analytical approach

In a first step of the analysis, descriptive statistics are shown in order to illustrate how the relationship between actual childbearing, fertility intentions, and the realization of positive and negative intentions varies between groups. Logistic regression is then used for multivariate analyses that control for factors that are known to influence the probability of realization, with results presented as average marginal effects.<sup>6</sup> All logistic regression analyses are conducted on the combined Norwegian and Swedish GGS samples but separately by gender and intention type. Analyzing respondents with positive and negative intentions separately facilitates interpretation of results since it means that having a child within 36 months of interview carries the same meaning in terms of realization for all respondents in any single model. As discussed in section 2, analyzing the Norwegian and Swedish samples jointly is reasonable given institutional and cultural similarities between the two countries. Yet, men in the Norwegian sample are significantly more likely to realize a positive intention than men in the Swedish sample even after controlling for demographic and socioeconomic factors. Therefore, all logistic regression models on the realization of positive intentions among men control for the survey country (i.e. Norway or Sweden).<sup>7</sup>

For the logistic regression analyses of both positive and negative intentions, model 1 includes immigrant background as the only explanatory variable (in addition to survey country for the analysis of men with positive intentions), with demographic factors added in model 2, socioeconomic factors in model 3, and the partner's intention in model 4. For the analysis of positive intentions, the sample size allows for further models (5-7), which combine immigrant background with educational attainment, partnership status, and the partner's intention respectively, in order to examine possible interaction effects. Models 4, 6, and 7 only includes respondents in a partnership, either married, cohabiting, or non-cohabiting.

<sup>&</sup>lt;sup>6</sup> Results from linear probability models were essentially similar to those obtained from logistic regression.

<sup>&</sup>lt;sup>7</sup> The predicted probability of realizing a positive intention does not differ significantly between women in the two countries. The predicted probability of having an unintended child does not differ significantly between the Norwegian and Swedish samples among either men or women.

### 5. Results

#### 5.1. Descriptive findings on intentions, realization, and actual childbearing

Descriptive findings of the study sample show that women of all immigrant backgrounds are less likely than native women to realize a positive intention (see Table 1). Differences compared to natives are more pronounced for G1 and especially G2 women of non-Western origin than for G1 and G2 women of Western origin, which is in line with expectations based on earlier findings and theory as discussed in sections 2 and 3. The probability of having an unintended birth is highest among non-Western G1 women, while the Western G1 and the G2 of both origin categories are relatively similar to natives.

Table 1.	Fertility	intentions,	realization,	and	childbearing	among	women
	_	,	,		0	0	

	native	Western G1	non- Western G1	Western G2	non- Western G2
% reporting a positive intention	28.5	23.6	34.2	27.0	32.0
% realizing a positive intention	45.0	38.5	33.9	37.7	22.5
% having an unintended child	3.0	4.8	7.0	3.2	2.4
% having a child, regardless of intention type	15.0	12.7	16.2	12.5	8.8
n	3,768	110	345	256	125

Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

Similar to non-Western G2 women, the probability of realizing a positive intention is depressed among non-Western G2 men (see Table 2). Unexpectedly, however, the non-Western G2 is similar to native men, while Western-origin men, especially the G1, are more likely than native men to realize a positive intention. Both G1 and G2 men of Western origin are less likely than other groups to have an unintended birth.

Table 2. Fertility intentions, realization, and childbearing among men

	native	Western G1	non- Western G1	Western G2	non- Western G2
% reporting a positive intention	23.4	25.4	39.2	30.1	23.9
% realizing a positive intention	41.1	61.8	40.4	48.0	27.0
% having an unintended child	4.5	2.0	5.7	2.3	4.2
% having a child, regardless of intention type	13.1	17.2	19.3	16.1	9.7
n	4.204	134	347	249	155

Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

Tables 1 and 2 illustrate that studying realization patterns among immigrants can contribute new knowledge about immigrant fertility patterns that cannot be attained by analyzing either actual or intended fertility alone. First, behavioral similarities between groups do not necessarily reflect similarities in intentions and realization. For example, whereas non-Western G1 women and native women are about equally likely to have a child during the period of observation, the former are more likely to state a positive intention but considerably less likely to realize it and also more likely to have a child after stating a negative intention at interview. Second, intentional similarities between groups do not necessarily translate into behavioral similarities. For example, native men, G1 men of Western origin, and G2 men of non-Western origin are about equally likely to realize a reported intention, whereas the groups differ considerably in their propensity to realize a reported intention, which leads to differences in actual childbearing. Thus, compared to analyses of either actual or intended fertility alone, taking the relationship between intentions and behavior into consideration can produce a more multifaceted understanding of immigrants' adaptation to the fertility regime of the destination country.

#### 5.2. The realization of positive fertility intentions

In order to test whether patterns described above hold when controlling for factors that are known to affect the realization of positive intentions, a set of logistic regression models are fitted as described in section 4.3. Starting with women, results show that both the G1 and G2 of non-Western origin are significantly less likely than native women to realize a positive intention in most models, while differences between native women and the two Western-origin groups are not significant in any model (see Table 3).<sup>8</sup> Stepwise introduction of controls for demographic and socioeconomic characteristics as well as the partner's intention only leads to small changes in the average marginal effects across models 1-4, indicating that realization differences between immigrant and native women cannot be fully explained by compositional differences at interview. Additional analyses conducted separately for Norway and Sweden

<sup>&</sup>lt;sup>8</sup> Results for women of Western origin should be interpreted with caution, since realization for both the G1 and G2 point in different directions in Norway and Sweden (see Appendix Table 1), indicating that analyzing the Norwegian and Swedish samples jointly may not be suitable for this group. The sample size available for this study did not allow for analyses where respondents are separated by origin, generational status and survey country in the same model.

show that G2 women of non-Western origin are significantly less likely than native women to realize a positive intention in both countries.<sup>9</sup>

	Model 1	Model 2	Model 3	Model 4
Immigrant background (ref.=native)				
Western G1	07	07	07	11
non-Western G1	11**	12***	09**	08
Western G2	07	06	05	03
non-Western G2	23***	20***	19***	17**
Partnership status (ref.=married)				
cohabiting		10***	08**	06*
non-cohabiting union/single		31***	30***	16***
Parity (ref.=1 child)				
childless		17**	20***	22***
2 or more children		22***	20***	19***
Age		.14***	.11***	.15***
Age squared		00***	00***	00***
Employment status (ref.=full-time)				
other			05*	02
Education (ref.=no university)				
university			.09***	.12***
Partner's intention (ref.=agrees)				
disagrees				15***
n	1,328	1,328	1,328	1,121
McFadden's R <sup>2</sup>	0.01	0.12	0.13	0.12

Table 3. Average marginal effects on the predicted probability of realizing a positive fertility intention among women

Note: Models 1-3 include respondents who were unpartnered at interview, while model 4 only includes partnered individuals. Other employment status includes part-time employed, unemployed, students, and others. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

Results for men show that the G1 of Western origin are significantly more likely than native men to realize a positive intention in all models (see Table 4). Neither G1 or G2 men of non-Western origin are significantly different from native men in any model, while G2 men of Western origin are significantly more likely than native men to realize a positive intention when controlling for demographic but not socioeconomic factors. Similar to the analysis of realization patterns among women, introducing controls for demographic and socioeconomic characteristics, as well as the partner's intention only leads to small changes to the average marginal effects across models 1-4, again indicating that realization differences between

<sup>&</sup>lt;sup>9</sup> Results are not shown, but are available upon request.

immigrants and natives cannot be fully explained by compositional differences at interview. Additional models for the Norwegian and Swedish samples separately show that the G1 men of Western origin are considerably more likely than native men to realize a positive intention in both countries, although results are not significant in either country.<sup>10</sup>

	Model 1	Model 2	Model 3	Model 4
Immigrant background (ref.=native)				
Western G1	.21**	.20**	.19**	.16*
non-Western G1	.01	.03	.05	.03
Western G2	.08	.10*	.09	.10
non-Western G2	12	10	08	08
Partnership status (ref.=married)				
cohabiting		08**	07*	07*
non-cohabiting union/single		36***	35***	27***
Parity (ref.=1 child)				
childless		16***	16***	19***
2 or more children		12***	12***	12**
Age		.04***	.03*	.03*
Age squared		00***	00**	00**
Employment status (ref.=full-time)				
other			08**	05
Education (ref.=no university)				
university			.07**	.08**
Partner's intention (ref.=agrees)				
disagrees				13***
Survey country (ref.=Norway)				
Sweden	08***	07**	06**	06*
n	1,267	1,267	1,267	1,024
McFadden's R <sup>2</sup>	0.01	0.14	0.15	0.12

Table 4. Average marginal effects on the predicted probability of realizing a positive fertility intention among men

Note: Models 1-3 include respondents who were unpartnered at interview, while model 4 only includes partnered individuals. Other employment status includes part-time employed, unemployed, students, and others. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

To further examine the group differences in realization patterns discussed above, the next step of the analysis specifies three additional models where the immigrant background variable is combined with either educational attainment (Model 5), partnership status (Model 6), or the partner's intention (Model 7), in order to examine potential effect differences across immigrant backgrounds (see Figure 1). For these models, the G1 and G2 are combined within each origin

<sup>&</sup>lt;sup>10</sup> Results are not shown, but are available upon request.

group due to sample size considerations. Results show that higher-educated men of Western origin are significantly more likely than higher-educated native men to realize a positive intention, whereas the difference between Western-origin men and native men is smaller and not significant among lower-educated individuals. Similarly, married men of Western origin stand out from all other groups in being considerably more likely to realize a positive intention, while Western-origin men in an unmarried union are not significantly different from native men in an unmarried union. Among women, higher-educated individuals of non-Western origin are significantly less likely than higher-educated natives to realize a positive intention. This finding is in line with the notion that the challenges of combining a labor market career and family may be particularly pronounced for women from disadvantaged minorities. However, there is only partial support for the hypothesis that the relatively weak status of marriage in Scandinavia should mean that the positive effect of marriage on realization is stronger among immigrants than among natives, as only Western-origin men and possibly Western-origin women seem to fit this pattern. Realization does not differ significantly by immigrant background among respondents with a partner that disagrees to the respondent's positive intention. Thus, there is no support for the hypothesis that cultural differences in the relative influence of the male and female partner should mean that women of non-Western origin with a disagreeing partner are less likely than native women with a disagreeing partner to realize a positive intention and correspondingly that men of non-Western origin with a disagreeing partner are more likely than native men with a disagreeing partner to realize a positive intention.

Yet, results point to considerable differences in realization patterns between men and women. In order to examine whether this reflects gender differences within immigrant groups or within the native reference category, additional models were run for each of the immigrant background categories separately. When controlling for the variables of Model 3, there are no gender differences among natives, whereas women are less likely to realize a positive intention within all immigrant groups, with gender differences in predicted probabilities of realization ranging between 9 and 23 percentage points (yet, differences are only significant for the two G1 groups).<sup>11</sup> Gender differences in realization within immigrant groups do not seem to be linked to women more often reporting a positive intention. The only immigrant background category where the gender difference in the propensity to state a positive as opposed to a negative intention is significant is the non-Western G1, among whom women are significantly less likely than men to state a positive intention.

<sup>&</sup>lt;sup>11</sup> Results are not shown, but are available upon request.





Note: Model 5 includes respondents who were unpartnered at interview, while models 6 and 7 do not. Model 5 controls for partnership status, parity, age at interview, age at interview squared, and employment status. Model 6 controls for parity, age at interview, age at interview squared, educational attainment, and employment status. Model 7 controls for partnership status, parity, age at interview, age at interview squared, educational attainment, and employment status. Model 7 controls for partnership status, parity, age at interview, age at interview squared, educational attainment, and employment status. All male models also control for survey country. 90 % confidence intervals. n: female model 5: 1,328, female models 6 and 7: 1,121, male model 5: 1,267, male models 6 and 7: 1,024. McFadden's R<sup>2</sup>s: women: Model 5: 0.14, Model 6: 0.10, Model 7: 0.12, men: Model 5: 0.15, Model 6: 0.09, Model 7: 0.12. Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

The effects of the control variables are largely as expected, given earlier research (see Tables 3 and 4). In addition to the variables included in the models presented here, further analyses also controlled for the respondent's number of siblings, religiosity, income, number of rooms at the current residence, whether the partner was native- or foreign-born, and the partner's employment status (all measured at interview). None of these variables contributed to a substantial change in the association between immigrant background and realization. Results

from models including these variables are not presented here because the variables either did not have a significant effect on realization or only covered a subset of respondents. In order to test whether realization patterns differ between respondents stating a probably yes or a definitely yes intention, separate analyses by type of positive intention were applied only to the Swedish sample. These analyses do not indicate that group differences in realization patterns vary substantially by type of positive intention.<sup>12</sup>

#### 5.3. Having an unintended birth

Because the number of births to respondents reporting a negative fertility intention is small among all immigrant groups, analyses of the propensity to have an unintended birth, i.e. failure to realize a negative intention, combines the G1 and G2 within each origin group. However, the number of events in the combined categories is still small, meaning that results in this section should be interpreted with caution. Yet, results show that men of Western origin are significantly less likely than native men to have an unintended birth in all models (see Table 5). This suggests that the difference between the groups cannot be fully explained by controlling for demographic and socioeconomic characteristics, or the partner's intention. Women of non-Western origin are significantly more likely than native women to have an unintended birth in model 1, but not in any of the other models. Men of non-Western origin and women of Western origin do not differ significantly from natives of the same gender in the probability of having an unintended birth in any model. Additional analyses for the Norwegian and Swedish samples separately show that the depressed probability of having an unintended birth among Westernorigin men exists primarily in the Norwegian sample. Further models where G1 and G2 women of non-Western origin are kept as separate categories point to an elevated probability of having an unintended birth primarily among the G1 (see also Table 1), although results mostly do not reach statistical significance.

<sup>&</sup>lt;sup>12</sup> Results are not shown, but are available upon request.

		Wo	men		Men			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Immigrant backgr.								
(ref.=native)								
Western	.01	.01	.00	.00	02**	02**	02**	03**
non-Western	.03**	.02	.02	.02	.01	.01	.02	.02
Partnership status								
(ref.=married)								
cohabiting		00	.00	00		.01	.01	.01
non-cohabiting		02**	02**	02*		03**	02*	00
union/single								
Parity (ref.=1 child)								
childless		08***	10***	08***		03	03	.02
2 or more children		05**	05**	05*		04**	04**	03*
Age		.02***	.02***	.02**		.02***	.02***	.01**
Age squared		00***	00***	00***		00***	00***	00***
<b>Employment status</b>								
(ref.=full-time)								
other			01	01			02***	02
Education (ref.=no								
university)								
university			.02**	.02***			.01*	.02**
Partner's intention								
(ref.=agrees)								
disagrees				.03				.10***
n	3,276	3,276	3,276	2,283	3,822	3,822	3,822	2,443
McFadden's R <sup>2</sup>	0.01	0.14	0.15	0.18	0.00	0.07	0.08	0.11

Table 5. Average marginal effects on the predicted probability of having an unintended birth, by gender

Note: Models 1-3 include respondents who were unpartnered at interview, while model 4 only includes partnered individuals. Other employment status includes part-time employed, unemployed, students, and others. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

#### 6. Discussion and conclusions

The overarching aim of this study was to explore how the propensity to realize positive and negative short-term fertility intentions varies between natives and immigrants of different gender, origin, and generational status. Using data from the Norwegian and Swedish Generations and Gender Surveys together with their respective register-based follow-ups, results indicate that such intergroup differences do indeed exist. G1 and especially G2 women of non-Western origin are significantly less likely than native women to realize a positive intention, whereas G1 men of Western origin are significantly more likely than native men to realize a positive intention. Western-origin men are also significantly less likely than native men to have an unintended birth.

These intergroup differences in realization patterns are robust to controlling for compositional differences in demographic, socioeconomic, and other factors that have previously been found to influence the individual propensity to realize a fertility intention, as these factors are measured at interview. While this study cannot establish the reasons for remaining realization differences between groups, three types of possible explanations seem theoretically plausible. First, group differences that cannot be explained by control over realization at interview may be due to changes to control that take place after interview. For socioeconomic or other reasons, groups may differ in the frequency of such changes, their direction (i.e. either increasing or decreasing the level of control), and the extent to which they were unexpected by the individual respondent. Second, cultural differences in risk aversion may lead to differences between groups in individuals' subjective evaluation of how hindering and enabling factors affect control over realization beyond what is captured by "objective" measures of control. Third, cultural differences in attitudes to family planning or to planning more generally may cause variation between groups in the meaning attached to a reported fertility intention, thereby leading to differences in the motivational strength to translate the intention into childbearing. Future research should explore the viability of these three hypotheses.

In showing that realization differences exist between natives and certain immigrant groups, this study contributes new information to the understanding of immigrant fertility. Mapping realization differences between groups highlights a dimension of immigrants' adaptation to the fertility regime of the destination country that cannot easily be examined by analyzing intended or actual fertility alone. This study shows that similarities in fertility behavior between immigrants and natives does not necessarily reflect attitudinal similarities and vice versa that attitudinal similarities does not necessarily translate into behavioral similarities. Thus, there is reason to be cautious about drawing conclusions about immigrants' social integration into the destination society based on patterns in fertility preferences or fertility behavior alone.

As to findings for specific groups, three results may be highlighted as particularly interesting. First, the probability of realizing a positive intention is particularly low among G2 women of non-Western origin. This may suggest that this group is experiencing particular difficulties in mitigating conflicting influences from fertility regimes associated with the origin and destination countries, for example relating to the role of women in the household and labor market. Second, results point to considerable gender differences in realization patterns among

different immigrant groups, particularly the G1. This highlights the general importance of examining patterns among both men and women in research on immigrant fertility. Third, the observation that Western-origin men differ in their realization patterns from native men was unexpected given earlier findings on fertility patterns among immigrants from Western countries in Norway, Sweden, and elsewhere. Yet, much of this earlier research focuses on female immigrants, again highlighting the importance of also studying fertility patterns among male immigrants.

In addition to providing new insights on the fertility adaptation processes of immigrants and children of immigrants, this study also contributes to the field of realization research. First, results show that immigration status and/or ethnicity can be important determinants of the propensity to realize reported fertility intentions. Potential differences by immigrant background should therefore be considered when analyzing realization patterns in immigrant receiving and ethnically heterogeneous countries, even when this is not the main focus of the inquiry. Second, the study makes a theoretical contribution by suggesting possible mechanisms that could produce group-level differences in realization patterns. Third, in showing marked differences between men and women in the realization of positive as well as negative intentions, this study demonstrates the value of analyzing the realization of both positive and negative fertility intentions, whereas earlier research has often only focused on the realization of positive intentions (e.g. Dommermuth et al. 2015; Hanappi & Buber-Ennser 2017; Kapitány & Spéder 2012; Spéder & Kapitány 2014).

The main limitation of this study is the relatively small number of respondents with an immigrant background, which imposed constraints on the analyses, most notably in restricting the possibilities to distinguish among groups of immigrants while maintaining statistical power. Furthermore, whereas the use of broad categories was unavoidable given the sample size, the fact that immigrant backgrounds were already aggregated into two origin and two generational categories within the Norwegian dataset further limited the possibilities to distinguish among origins and generational statuses as best suited for the objectives of the study. Especially the non-Western origin group is very heterogeneous in terms of national origins, with realization patterns likely to differ among subgroups. Although realization patterns mostly point in the same direction for the G1 and G2, earlier research on immigrant fertility has shown that there is reason to distinguish among the G1 between those who immigrated as adults and those who immigrated as children as well as among the G2 between those with two and those with one foreign-born parent (e.g. Carlsson, 2018; Scott & Stanfors, 2011; Tønnessen, 2014). However, all survey data where immigrants or ethnic minorities are not oversampled should suffer from

similar problems related to the small sample size of individuals with an immigrant background. In fact, the minimal attrition from interview to follow-up resulting from the use of registerbased follow-ups to the Norwegian and Swedish GGS should mean that this material is better suited to the research objectives of the present study compared to alternative data sources that are based on successive survey waves. Yet, it seems clear that larger samples of immigrants or ethnic minorities are needed to further develop the understanding of realization differences between immigrants and natives or between ethnic groups.

This study is one of the first to examine variation in realization patterns across immigrant backgrounds or ethnic groups. Further research is needed to explore the extent to which the findings reported here can be generalized across space and time. Country-specific factors, such as native realization patterns (earlier studies have found realization patterns to differ across European countries: Kapitány & Spéder, 2012; Régnier-Loilier & Vignoli, 2011), integration policies, and immigrants' origins and reasons for migration, are likely to affect the magnitude and direction of realization differences between natives and immigrants. It is also possible that patterns in Norway and Sweden have changed over time, since overall fertility levels have dropped considerably, especially in Norway, since the time of the GGS. Future research should also explore whether realization differences between natives and immigrants are more pronounced when considering other types of fertility preferences, such as ideals and desires. According to theory, preference types that are more distant from behavior should be more influenced by normative differences between origin and destination countries compared to preference types that are more proximate to behavior.

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	Positive intention					Negative intention			
	native	Western G1	non- Western G1	Western G2	non- Western G2	native	Western	non- Western	
Had a child within 36									
months of interview									
no	55.0	61.5	66.1	62.3	77.5	97.0	96.3	94.2	
yes	45.0	38.5	33.9	37.7	22.5	3.0	3.7	5.8	
Norwegian/Swedish GGS									
Norwegian	61.9	61.5	39.0	31.9	32.5	65.1	50.9	34.0	
Swedish	38.1	38.5	61.0	68.1	67.5	34.9	49.1	66.0	
Partnership status									
married	22.4	38.5	51.7	20.3	20.0	35.6	36.5	36.9	
cohabiting	49.4	42.3	19.5	47.8	35.0	23.2	19.6	9.6	
non-cohabiting/single	28.2	19.2	28.8	31.9	45.0	41.2	43.9	53.2	
missing	-	-	-	-	-	-	-	0.3	
Parity									
childless	59.1	61.5	45.8	59.4	62.5	39.2	40.6	45.2	
1 child	27.9	19.2	25.4	26.1	30.0	7.6	9.2	10.9	
2 or more children	13.0	19.2	28.8	14.5	7.5	53.2	50.2	43.9	
Age									
mean	28.7	30.7	30.4	29.1	25.7	32.4	32.5	30.1	
Employment status									
full-time	56.3	46.2	41.5	56.5	42.5	46.3	49.1	31.4	
other	43.1	53.8	55.9	42.0	57.5	53.1	50.2	67.3	
missing	0.7	-	2.5	1.4	-	0.6	0.7	1.3	

Table A1: Descriptive statistics for women, by intention type and immigrant background (%)

## Table A1, continued

	Positive intention					Negative intention		
	native	Western G1	non- Western G1	Western G2	non- Western G2	native	Western	non- Western
Education								
no university	44.7	34.6	60.2	55.1	62.5	57.6	55.4	63.5
university	55.3	61.5	34.7	43.5	37.5	42.4	43.2	34.6
missing	-	3.8	5.1	1.4	-	-	1.5	1.9
Partner's intention								
agrees	37.9	46.2	43.2	34.8	27.5	64.9	59.8	50.6
disagrees	40.5	38.5	34.7	44.9	42.5	3.7	4.1	8.3
respondent is single	15.3	7.7	15.3	17.4	27.5	29.1	32.5	38.1
other/missing	6.4	7.7	6.8	2.9	2.5	2.3	3.7	2.9
n	1,075	26	118	69	40	2,693	271	312

Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

	Positive intention					Negative intention			
	native	Western G1	non- Western G1	Western G2	non- Western G2	native	Western	non- Western	
Had a child within 36									
months of interview									
no	58.9	38.2	59.6	52.0	73.0	95.5	97.8	94.8	
yes	41.1	61.8	40.4	48.0	27.0	4.5	2.2	5.2	
Norwegian/Swedish GGS									
Norwegian	62.7	58.8	38.2	45.3	29.7	65.3	47.1	40.7	
Swedish	37.3	41.2	61.8	54.7	70.3	34.7	52.9	59.3	
Partnership status									
married	25.7	26.5	44.9	21.3	29.7	31.4	38.7	33.4	
cohabiting	41.7	50.0	13.2	45.3	24.3	20.0	17.5	9.7	
non-cohabiting/single	32.6	23.5	41.9	33.3	45.9	48.6	43.8	56.8	
Parity									
childless	61.0	58.8	53.7	60.0	67.6	49.5	41.2	54.1	
1 child	25.6	26.5	19.1	22.7	27.0	7.5	7.7	6.4	
2 or more children	13.4	14.7	27.2	17.3	5.4	43.0	51.1	39.5	
Age									
mean	31.6	34.4	31.4	32.1	27.3	33.5	35.2	31.6	
<b>Employment status</b>									
full-time	82.2	85.3	66.9	86.7	56.8	72.6	73.7	52.3	
other	17.3	14.7	30.9	13.3	40.5	27.2	25.5	44.7	
missing	0.5	-	2.2	-	2.7	0.2	0.7	3.0	

Table A2: Descriptive statistics for men, by intention type and immigrant background (%)

## Table A2, continued

	Positive intention					Negative intention		
	native	Western G1	non- Western G1	Western G2	non- Western G2	native	Western	non- Western
Education								
no university	62.5	41.2	66.2	58.7	70.3	70.7	61.7	71.1
university	37.5	52.9	30.9	41.3	27.0	29.2	37.2	27.7
missing	-	5.9	2.9	-	2.7	0.1	1.1	1.2
Partner's intention								
agrees	38.8	55.9	36.8	44.0	32.4	58.0	62.0	46.5
disagrees	38.2	35.3	30.9	30.7	32.4	3.2	4.0	6.1
respondent is single	18.5	8.8	24.3	22.7	21.6	35.8	30.7	43.2
other/missing	4.6	-	8.1	2.7	13.5	3.0	3.3	4.3
n	985	34	136	75	37	3,219	274	329

Source: Norwegian and Swedish GGS, Wave 1 + register follow-ups

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