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Cognitive ability and fertility amongst Swedish men. Evidence from 18 cohorts of military conscription

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Abstract: We examine the relationship between cognitive ability and childbearing patterns in contemporary Sweden using administrative register data. The topic has a long history in the social sciences and has been the topic of a large number of studies, many arguing for a negative gradient between intelligence and fertility. We link fertility histories to military conscription tests with intelligences scores for all Swedish born men born 1951 to 1967. We find an overall positive relationship between intelligence scores and fertility and that is consistent across our cohorts. The relationship is most pronounced for transition to a first child, and that men with the lowest categories of IQ-scores have the fewest children. Using fixed effects models we additionally control for all factors that are shared across siblings, and after such adjustments we find a stronger positive relationship between IQ and fertility. Furthermore, we find a positive gradient within groups of different lengths of education. Compositional differences of this kind are therefore not responsible for the positive gradient we observe - instead the relationship is even stronger after controlling for both educational careers and parental background factors. In our models where we compare brothers to one another we find that relative to men with IQ 100, the group with the lowest category of cognitive ability have 0.58 fewer children, and men with the highest category have 0.14 more children.

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Introduction

Research on the relationship between cognitive ability and fertility was a prominent research question in the social sciences in the first half of the 20th century. Interest in the relationship between fertility and intelligence has often been linked to questions about correlations (or heritability) in intelligence across generations, and the topic has a long and often controversial history. In the past, differential fertility gradients between individuals with high and low intelligence were examined in order to investigate whether the long-term distribution of cognitive ability in the population would differ through intergenerational processes. However, less research has addressed how childbearing behavior more broadly is related to intelligence. In this article we examine in detail how fertility behavior differs by intelligence, measured by military conscription IQ tests administered at ages 17-20 to all men in Sweden. Beyond examining the overall correlation between IQ-scores and number of children, we also examine parity progressions, parity distributions, and the extent of childbearing across partnerships and how these vary along the IQ distribution. In doing so we provide evidence from representative national data and for a non-Anglo-Saxon population, in a research field where almost all previous studies rely on data from the US or UK. We suggest that population level data can bring clarity to a topic that is seldom analyzed using high quality data, and we find results contrary to earlier research on this controversial topic. Our results give insights into to which groups in society that can act on their fertility preferences and the extent of external constraints for male childbearing.

With data on a complete population of males born in Sweden between 1951 and 1967 (N=779,146) we provide, to our knowledge, the first estimates for the relationship between intelligence and fertility based upon population level data rather than survey data-based estimates. We also have access to registers of fertility histories, and educational careers, which allows to accurately follow-up of the reproductive careers of our male cohorts, and how fertility behavior varies by IQ, educational level, and IQ within educational level. Although there is evidence that cognitive ability influences occupational attainment, earnings, as well as marriage and divorce, each of which are in turn related to childbearing, the objective of this study is to focus upon the overall association between cognitive ability and patterns of childbearing rather than to examine the relative importance of intermediary mechanisms for that association. Our administrative data allows us to capture the complete population, including for example institutionalized individuals, unlike previous research that has used more narrow sampling criteria. We also apply statistical regression methods in which we only compare siblings with each other, and examine how intelligence affect fertility net of all other background factors shared by siblings. Therefore, we are able to study how intelligence scores are associated with fertility behavior net of differences in socioeconomic advantage and disadvantage that are often cited as explanations for fertility differentials by cognitive ability.

Previous Research on Intelligence and Fertility

In order to contextualize our research, it is important to provide a brief historical overview of research in the relationship between fertility and intelligence, though we will largely exclude the related but distinct history of research on differential fertility based on other social traits such as education and income. The pioneers of contemporary statistical methodology in both the biological and social sciences were interested in differential fertility by achievement, with a particular interest in intelligence. Francis Galton, Karl Pearson, and Ronald Fisher all examined differential fertility in the context of intergenerational processes (e.g. Fisher 1930, Galton 1904). See Kevles (1985) for an overview. Much of contemporary statistics was developed in conjunction with research on these issues. In the 19^{th} and first half of the 20^{th} century a wide range of traits, achievements in art and sciences, social class, and education were often treated interchangeably with the concept of intelligence, but during the beginning of the 20^{th} century modern IQ tests were developed. Intelligence began to be operationalized using IQ scores, and these were increasingly used in research.

Unlike other aspects of achievement in which traits in adulthood could, with relative ease, be correlated with completed fertility, the earliest research on intelligence and fertility typically used childhood measures of intelligence. In the first half of the 20^{th} century many studies primarily examined the correlation between IQ measures in childhood and number of siblings. This early research was typically guided by expectations about finding a negative correlation between intelligence and family size, but this was not always confirmed in empirical analyses (Anastasi 1956). Overall, results found both positive and negative correlations, though many studies found clear negative correlations between child IQ and number of siblings. Data on the number of siblings and IQ in childhood is considerably easier to collect than intergenerational data on the intelligence of parents and their completed fertility, but the former approach is deeply problematic for making inferences about the latter process. For example, very strong assumptions about stationarity of the distribution of the trait among parents and children are needed.

Most early research on this topic was motivated by eugenics concerns, in which differential fertility, with higher fertility amongst lower achievement groups, was feared to lead to declining average achievement in future generations (Kevles 1985, Osborn 1952). This dystopian dysgenic perspective seems to retain a persistent, if controversial, grip in the popular imagination to this day. During the period of early research on differential fertility by intelligence before the 1930s, researchers did not yet have a scientific understanding of the mechanisms of inheritance for genetic traits. The acceptance of Mendelian genetics, followed by breakthroughs in population genetics in the 1920s and the 1930s, gave a clear causal understanding on how intelligence and fertility could be related for the first time. Most early, and some recent, research has focused on differential fertility by intelligence, without specifying exactly how intergenerational transmission would function. Much of the early research on the correlation between childhood IQ scores and number of siblings can be understood in this intellectual context.

The quality of data collection became more sophisticated after the Second World War, with the study of IQ and fertility in Scotland playing a prominent role. A particularly important piece of work for the research question addressed in this study was that of Higgins et al (1962). Higgins and colleagues examined the implications of examining the research question from the perspective of parents (which is the primary dimension relevant to understand a trait's distribution in the following generation), as well as that of children. Importantly, they also recognized the importance of incorporating childless individuals into the analysis (impossible in studies focusing on child measurements), as well as the importance of parity distributions. With data from the parents' perspective they found that there was almost no gradient between IQ and fertility.

Sophistication in research on the relationship between fertility and intelligence has improved over the past 50 years. What has been labeled the 'dysgenic' relationship – the existence of a possible negative correlation between fertility and intelligence, and its assumed connection to population level deterioration of intelligence, continues to be the motivation for most research on the topic, even over the past few decades. As the scientific understanding of parent-child genetic transmission mechanisms have improved, research has increasingly exclusively examined the research question from a parental viewpoint. However, very few studies have examined the relationship between intelligence and fertility from anything other than the "dysgenic" perspective.

Following Higgins et al (1962), a number of studies using modern survey data from the United States found positive correlations between IQ and fertility, focusing on the overall correlation between intelligence and completed fertility. This research, often based on sub-populations from the upper Midwest, examined cohorts born in the 1910s and 1920s who were having children throughout the US baby boom (Bajema 1963, Bajema 1968, Falek 1973, Waller 1971). Using data on later cohorts (Vining 1982, Vining 1995) and (Retherford & Sewell 1988, Retherford & Sewell 1989) found a small negative overall correlation between fertility and IQ. Several of these studies examined parity progression to higher births, and founds that the intelligence differences were larger at higher parities. Recent studies on the US include Lynn (1999), Lynn and Van Court (2004), Meisenberg (2010) , of Menie et al (2016), which have found small negative IQ-fertility gradients for men and women, with stronger negative gradients for women. However, Woodley and Meisenberg (2013) reported a small positive effect for white males. Preston and Campbell (1993) created an analytical model on intergenerational continuities in intelligence based on social transmission.

Overall recent research on the IQ-fertility relationship has focused on the US, using either data from the Midwest or nationally representative samples. Over time there seems to have been a transition from no clear gradient, or an ambiguous gradient, between fertility and intelligence amongst cohorts born in the first half of the 20th century, to a small to moderate negative gradient for cohorts born in the second half of the 20th century. The effects appear to be smaller for women than for men. The few studies focusing on the distribution of fertility by IQ find that lower intelligence is most commonly associated with either childlessness, or large family sizes.

In other related studies from outside the US, Von Stumm et al (2011) found no overall association between childbearing and intelligence for both men and women. Kanazawa (2014) found small negative associations between entry to parenthood and intelligence for women in the UK. of Menie et al (2016) found no clear pattern for UK men and women. Recent data from East Asia has found negative gradients between IQ and fertility in Taiwan (Chen et al 2013) and China (Wang et al 2016). Finally of particular relevance to this study are two older Swedish studies (Nyström et al 1991, Vining et al 1988), studying cohorts born in the 1910s to 1930s. Using very small samples and bivariate tables they showed high fertility amongst high IQ males, and an unclear pattern for women, with some support for a negative gradient. All of their results, however, are ambiguous due to their low statistical power. Madison et al

(2016) found that auditory reaction times declined in Sweden during the period of this study and linked it to an assumed negative selection on intelligence.

Cognitive Ability: Concepts and Intergenerational Correlations

Questions about the nature and measurement of cognitive ability have inspired some of the most intense debates of the 19th, 20th and 21st centuries in the social sciences (e.g. Flynn 2013, Galton 1869, Jensen 1969). Guided by both data availability as well as following much earlier research on the topic, we use a measure of cognitive ability that has been argued to capture generalized intelligence, sometimes called *g*, in order to examine its association with fertility behavior in Sweden. As we discuss in greater detail in the data section, the measure of cognitive ability that we use is drawn from the Swedish Enlistment Battery, a series of tests that military conscripts were subject to in Sweden in the second half of the 20th century. These tests aimed to capture different dimensions of cognitive ability, including logical, spatial, and verbal skills, which were subsequently summed to obtain an overall score (Mårdberg & Carlstedt 1998). Although a common criticism of intelligence tests is that they are socioculturally biased, the homogenous nature of our study population – Swedish-born men – means that for comparisons within our population, such issues are less of a concern.

Cognitive ability as measured by intelligence tests captures the ability to solve abstract intellectual puzzles. These abilities develop over childhood with children gradually being able to solve increasingly complex problems. These ability improvements are attributable to physiological development and exposure to social learning, greatly enhanced by formal education in contemporary settings. As such, we can expect cognitive ability to be a function of childhood developmental trajectories which likely differ according to both genetic factors and environmental factors (e.g. Devlin et al 1997). The most important environmental factors are likely the cognitive environment during upbringing, strongly mediated by education and training (e.g. Bors & Vigneau 2003, Ceci 1991, Lazar et al 1982), but also childhood environmental influences such as early life exposures and childhood nutrition are likely also important (Walker et al 2011). As we discussed above, most research on the relationship between cognitive ability and childbearing has been motivated by an interest in the intergenerational transmission of cognitive ability, and how this will affect the distribution of the trait in the following generation. To understand how such generational changes will unfold it is important to understand the degree of intergenerational correlations for cognitive ability.

It is clear that parents are directly and indirectly associated with many factors affecting cognitive ability, and as such we can expect intergenerational correlations in cognitive ability. Such influences will operate both through the childhood environment that parents provide within the home, but also through well-established channels for intergenerational status entropy such as intergenerational correlations in education and income. The fact that parents transmit their genes to their children will also mean that there will be intergenerational continuities in cognitive ability. Intergenerational (Pearson) correlations for cognitive ability are around 0.3 to 0.4 with some outliers in both directions (Black et al 2009, Bouchard & McGue 1981), suggesting a strong intergenerational component to cognitive ability. As correlations are high, large differences in fertility by cognitive ability offer potential for shifts in cognitive ability in subsequent generations. Classical genetic twin designs gives heritability estimates of around 0.5 to 0.8 (Visscher et al 2008) though intergenerational processes can operate both through the transmission of cultural and genetic factors. Broad intergenerational correlations for cognitive ability reflect both parental genes as well as the intergenerational transmission of social advantage and disadvantage. We note, however, that our study allows us to examine the importance of cognitive ability for childbearing behavior net of socioeconomic status, shared genetic, and shared environmental conditions in the family of origin as we have the data to compare full biological siblings to one another.

Potential Pathways for the Association between Cognitive Ability and Fertility

Many reasons have been suggested for why cognitive ability should be associated with fertility (e.g. Anastasi 1956). Some social scientists assume that the primary mechanism for differences by cognitive ability and fertility is through different fertility preferences in different groups. It is also possible that the link between cognitive ability and childbearing is primarily mediated by how cognitive ability positively influences adult socioeconomic status. In many developed societies, there is evidence for a negative association between cognitive ability (Jones & Tertilt 2008, Skirbekk 2008), but in contemporary Sweden the evidence is more complex, and is likely positive for male fertility (Andersson 2000, Andersson & Scott 2008, Jalovaara et al 2017). We address such questions by examining the association in the complete population as well as within educational groups, as well as by adjusting for parental background.

It is plausible that partner search and formation is particularly important to understand male fertility. Failure to find and/or keep a partner for childbearing may be an important determinant of low fertility for men in contemporary Sweden. Low fertility may then be primarily expressive of an unfulfilled desire for parenthood. We examine such aspects by studying how cognitive ability is related to different parity transitions, as well as childbearing across partnerships. Moreover, low scores on cognitive ability are strongly correlated with childhood and adulthood health which may adversely affect fertility both through behavioral and physiological pathways (Calvin et al 2010, Wraw et al 2015). This might be of particular importance at the lower ranges of the IQ distribution, where poor health and disabilities are likely to be overrepresented.

Contribution of Our Study

In our study we present a broad overview of how cognitive ability and fertility are associated, focusing both on variation along the IQ distribution (IQ quantiles) and the fertility distribution (different parity transitions). Our population size data allows us to examine and obtain robust estimates, including at the tails of the IQ distribution and for more uncommon parity transitions, and to further link the IQ data to fertility and educational trajectories. Our use of population data also allows us to capture groups that are typically difficult to reach with postal or telephone surveys, or data that are conditional on high school attendance. This is a particular advantage for issues when researchers are interested in the population composition. We also go beyond most previous research in focusing on detailed differences in fertility by parity, fertility measurement at different ages, number of childbearing partners, and provide some evidence of how the overall association is mediated by achieved educational level.

In this study we have information on the complete population, and so we can also link all men to their brothers, by means of linkages to their parents. This allows us to use sibling comparison models, and to study variation among brothers sharing the same two biological parents. This allows us to investigate the extent to which the IQ-fertility relationship is related to parental backgrounds factors. Our combination of data and models allows us to more exactly isolate the role of intelligence as an influence on childbearing behavior as we can control for both the individuals social background as well as their educational histories. As we can control for everything that is shared between brothers, we also control for parental intelligence, and parental genes – and thus indirectly some genetic similarity between the brothers. While such models are superior to understand how intelligence is sociologically related to childbearing, we also present regression models and descriptive statistics based upon the complete population of men as such a perspective is more relevant to understand intergenerational population-level processes.

Data and Methods

Data

Our study is based on administrative registers of the complete population of Sweden. Our IQ measurement is based on the intelligence measurements based on the tests forming the basis of the universal conscription of all men in Sweden born from 1951-1967. Conscription tests took place at ages 17-20, and all Swedish males were required by law to attend these tests. We combine these registers with other administrative registers on vital events and educational registers. By means of the universal Swedish identification number, we can therefore link all Swedish-born individuals at these times to both conscription scores and highly accurate measurements of fertility histories and educational attainment with a very high degree of certainty. Register data with monthly event histories of vital events are available from 1968 to 2012. All the data are linked through universal personal identity numbers, and linkage quality is virtually perfect for fertility and education. As the vital events are based on birth records we can only link fathers to children that are known by the authorities, though these represent over 99% of all births (Statistics Sweden 2009), partly because of rigorous paternity investigations by the social services. As such our data is superior to self-reported information which can be problematic, and particularly so for assessing male fertility.

We have data on scores from universal conscription tests for the period 1969 to 1981, but as we want to follow our cohorts until age 45 in order to be sure we measure completed fertility, we limit our study to cohorts born between 1951 and 1967. We define our population as all Swedish-born men of those cohorts alive until the end of their reproductive ages. In later robustness checks we demonstrate the critical importance of allowing a proper observation window to study male fertility, as a high mean age at birth is strongly correlated with high intelligence.

Sweden had universal military conscription for most of the 20th century, in which all men were obliged to spend 1 year with the military, typically at ages 18-20. To assess eligibility, and more importantly to select people into various branches and jobs within the military, all men in Sweden had to participate in a one to two day examination before the beginning of their conscription. During these tests, men were subject a battery of tests to assess their suitability for the armed forces, and to determine their assignment. One of these assessments was of general cognitive ability (Carlstedt 2000). This cognitive ability test consisted of subtests that measured logical, spatial, verbal, and technical abilities (Mårdberg & Carlstedt 1998). Each of these sub-tests was first evaluated on a normalized 9-point (stanine) scale. The subtest scores were summed to obtain an overall score and transformed onto a stanine scale with a mean of 5 and a standard deviation of 2. Throughout our study we are using the 9-level categorical stanine measure for our analysis, and present results translated into IQ scores based on a standard Wechsler scale. Although the nature of the cognitive ability test changed somewhat over the years, the test was stable for the years during which the sample included in this analysis were conscripted (Carlstedt 2000) .The tests were normalized for every year, so our IQ measure is always relative within a given cohort. As such, there can be no increase or decline in IQ scores over time.

The military conscription tests, despite being mandatory, were not taken by everyone (around 97%), and of those that attended, a small group did not take the IQ test (2%). However even in this group, we can assess the selectivity through their educational histories, as well as how it could affect our estimates, as their fertility histories are known. We assume that the missing category is a heterogeneous group, including, for example, people who were abroad at the time. This group has an educational distribution close to, but slightly lower, than the population as a whole, but very few children. The group that showed up for the assessment but were not tested have both lower educational attainment and childbearing, and most likely consist largely of individuals with various traits or (often non-cognitive) disabilities that rendered them unfit for military service. The not-tested group, and to a lesser extent the missing group, would likely have lower IQ scores than the population as a whole.

Information on educational attainment is derived from administrative registers. We use three categories: primary education, secondary education, and any tertiary education. The information is based on current educational attainment at the end of the reproductive career. Primary and secondary attainment will mostly take place before measurement of IQ, while tertiary attainment takes place after measurement.

We will rely on data measured at the end of the reproductive careers of the men in our sample, and the fertility and educational attainment variables are measured at the latest point possible in our data, in 2012. Most of our data is based on fertility measured at or after age 50, which assures that we have a virtually complete count of fertility, missing less than 1% of births. We also report how our results change when we assess fertility at lower ages, starting from age 25. For some of our results we decompose completed fertility into the contribution of men based on their eventual parity at their end of the reproductive careers, for different levels of IQ. This is done by multiplying the proportion of men with a given parity, with the given parity. This equals the average fertility of that group, when summed up for all parities. This is not the contribution of, for example, all first births to completed fertility, but based on the contribution of men with a final parity of one. We make a similar decomposition for fertility by first, second, and third or higher childbearing partners.

Statistical Analyses

In addition to our presentation of descriptive statistics, we conduct a number of ordinary least square regressions on completed fertility. For parity transitions we also use linear regression models, which are sometimes referred to as linear probability models, when used on a binary outcome with robust standard errors. The populations of our models for parity transition *n* are the population with at least a final parity of *n*-1, and these models have a similar interpretation as the parity progression ratio (PPR). We present both linear regression where we use all men in the population, as well as fixed effects models in which we only analyze variance that is shared between full-siblings. The latter class of models require that there were at least two full brothers in each family, that both were born in the 1951-1967 cohort window that we study, and that they differ on either IQ or completed fertility. Using sibling comparison models, we can hold constant all factors that are shared between siblings. Most important this includes parental background variables such as parental education and parental income, but also include aspects harder to measure such as parental behavior, personality traits, and parental intelligence. Such models will also adjust for shared ethnic, regional, school (as long as shared between brothers), and other socialized differences within sibling groups, and will adjust for genetic similarity to the extent that this is shared amongst brothers (on average half of all genes). As such we are able to examine the importance of cognitive ability on childbearing behavior net of important shared genetic and environmental factors that influence both cognitive ability scores as well as fertility preferences. In our regression models we also present models with and without adjustments for birth order and family size, as there is evidence that these factors are related to both cognitive ability and fertility in contemporary Sweden (Barclay 2015, Black et al 2010, Kolk 2014, Morosow & Kolk 2016).

Results

We begin by showing the descriptive relationship between fertility and intelligence in our cohorts. We calculated mean completed fertility separately for each category of our IQ measure, and present the results in Figure 1. Overall we can see a clear pattern in which fertility is much lower for men with lower IQ scores, but that this difference largely disappears at IQ scores higher than the median. For different IQ scores above the median we find no large differences in average fertility. Around 2% of our cohorts did not take part in the mandatory conscription test in Sweden, and this group has substantially lower fertility. Of the 98% that attended the conscription testing, 3% did not take the IQ test, likely because they were considered unqualified for military service due to medically verifiable disabilities, and we find that this group also had low fertility. The overall mean number of children in the population was 1.80, where the lowest IQ category had 1.41 and the above median categories had 1.87-1.89 children.

We also decompose completed fertility by different final parity (for parities 0 to 6) for each IQ category. Over 40% of the Swedish men have 2 children, and they contribute almost half of all children to completed fertility. The contribution of men with 5 or more children is very small. Overall, we find that family sizes 2 and 3 are the most common amongst men with high IQ scores. The lower fertility amongst men with low IQ scores is mainly the result of a small proportion of men with 2 or 3 children, combined with a large share of childless individuals. In Figure 2 we instead show mean IQ scores by parity. Here we find that the highest IQ scores are found amongst men who had 2 or 3 children, and to a lesser extent also for men who had 4 children. For childless men, and men with 1 child we find IQ scores well below those at parity 2 and 3. For the highest parities we also find substantive lower IQ, but those groups are so uncommon that they do not contribute significantly to the pattern shown in Figure 1.

In Figure 3 we show the distribution of completed fertility for our cohorts. We find that the distribution peak at parity 2 with a smaller number of men with 0, 1, or 3 children. Higher parities are uncommon, and parities above 5 constitute only a few percentage points. To understand the overall gradient between fertility and IQ scores it is mainly the IQ scores of the common parities 0 to 3 (and a lesser extent 4) that have an impact on the gradient. The pattern shown in Figure 1 is the result of high IQ scores among the common parities 2 and 3 men, and lower scores among men with 1 or no child.

Additionally in Figure 3 we show the distribution of family sizes from the child's perspective, in contrast from the parental perspective in the rest of our study (cf. Preston 1976). While the parental perspective is more important to understand how a trait is transmitted into the next generation, the child perspective shows the proportion of children that will grow up with fathers of different IQ scores. The latter may be more important for social policy. It shows that the vast majority of children will grow up with fathers of parity 2 and 3 (over 75%) that have the highest IQ scores, and that obviously no child will grow up with a childless father. The gradient from the child's perspective is therefore clearly positive, with fathers with low fertility making only a minor contribution, though very large family sizes (with slightly lower IQ score) are also more common from the child's perspective.

Results by number of childbearing partners

We also analyzed the degree of sequential multi-partner fertility by IQ scores. In Figure 4 we show that having children with more than one womea is more common among men with lower IQ scores and that men with higher IQ scores have a larger proportion of their births with their first childbearing partner. Around 10% of births take place with second and higher order mothers. We also show changes over time for our cohorts in Tables S3 and S4 in the Supplementary Information. We find that the overall patterns in our IQ-fertility relationship were consistent over time, though we find a slightly stronger positive gradient for the earliest cohorts that we study.

Results by age at childbearing

There are strong differences by age of parenthood for different IQ scores. In Figure 5 we show the distribution of age at first birth for men who had at least one child by IQ score category. We find a very strong pattern of increasing age at first birth by increasing IQ score. Our lowest IQ score category has their first child at age 27.6 while the highest IQ score category have a mean age of 31 with a monotonic increase in-between. The share of children above age 35 similarly increases rapidly with IQ score. Such differences have strong implications for the gradient between IQ scores and fertility as measured at different ages, which we explore in figure 6. The lower ages at birth among men with lower IQ scores means that the gradient between IQ scores and fertility is completely reversed when fertility is measured before age 30. Earlier in the reproductive life course, men with low IQ scores have twice as many children as men in the highest IQ categories. At age 35 we still find a smaller negative gradient that then changes into a positive gradient once we account for all children at higher ages. However, our results illustrate that we need data at least until age 45 to accurately assess the overall gradient between IQ scores and fertility. This has implications for much earlier research that has often used data based on fertility histories collected at much earlier ages. Statements such that completed fertility can be assumed to be complete at age 40 (Lynn & Van Court 2004) are clearly not reasonable for studying the intelligence-fertility gradient for men in Sweden. Any study examining the relationship for men and women in their early 30s or earlier risks severe biases by discounting such childbearing patterns (e.g. Peach et al 2014, Vining 1982), and studies based upon samples at any age below age 40 would also be problematic (e.g. Lynn & Van Court 2004, Meisenberg 2010).

Figure 1: Completed fertility by IQ category for Swedish men born 1951-1967. Contribution to completed fertility by eventual parity of the men.

Figure 2: Mean IQ (measured on a discrete stanine scale) for Swedish men born 1951-1967 by completed fertility.

Figure 3: Distribution of completed fertility for Swedish men born 1951-1967, as well as from the children's perspective born to those fathers.

Figure 4: Completed fertility by IQ category for Swedish men born 1951-1967. Contribution to completed fertility by children with first childbearing partner, second partner, and third or higher order partner.

Figure 5: Distribution of age at first birth by IQ scores for Swedish men with at least one child born 1951-1967.

Figure 6: Fertility by IQ category by age of measurement of fertility for Swedish men born 1951-1967 for Swedish men born 1951-1967.

Education and IQ

Previous studies have shown a very strong relationship between education and IQ scores, and we also observe this pattern in our data. To examine if the fertility and IQ gradient is mediated by the effect of IQ scores on education we examine the gradient by final achieved education. We categorize our population into primary education, secondary education, and any tertiary education. In Figure 6 we show the number of men by education and IQ score. We find a very strong correspondence between IQ scores and educational achievement with virtually no tertiary educated men with low IQ scores, and virtually no one with only primary education amongst those men with the highest IQ scores. Only at the median IQ scores do we find a distribution of primary, secondary, and tertiary education that resembles that of the population as a whole. We note that the educational distribution of our missing category largely represent the population as a whole, while that of the non-tested group is more representative of the lower IQ score groups. This suggests that the non-tested group with low fertility and low educational achievement largely consist of individuals that would have scored below average on IQ measurements if they had taken the test, and that the gradient we show between fertility and IQ scores in Figures 1 and 2 is underestimated.

In Table 1 we show mean IQ scores by parity within each educational category. We find a very strong correspondence between intelligence and educational achievement with much higher IQ scores by increasing education. Within each educational category we find a gradient that is very similar to what we showed in Figure 2, with the highest IQ scores in the parity 2 and 3 groups, and a consistent positive gradient. The overall gradient between IQ scores and fertility is slightly stronger within educational groups than for the complete population. This implies that the relationship between IQ scores and fertility is not mediated by education, but is also found within subgroups of the population. We show that same pattern in Figure 7 where we examine mean completed fertility by IQ score. We present tables with the source of figures as well as further tabulations in Tables S1-S8 in the Supplementary Information section.

Figure 7: Number of men by education (measured at 2012) and IQ scores for Swedish men born 1951- 1967.

Table 1: Mean IQ (stanine scale), parity and educational attainment for Swedish men born 1951-1967.

Figure 8: Completed fertility by IQ category for Swedish men born 1951-1967 by educational level.

Regression models on completed fertility

Up to this point we have shown different descriptive tabulations between IQ scores, fertility, and educational level. We now present the results from regressions where we analyze the relationship between fertility and IQ scores, as well as different parity transitions and IQ scores. We have estimated models using the full population of men in the birth cohorts that we study, as well as sibling comparisons in which we compare brothers who share a biological mother and a biological father to one another. In the latter models we only analyze the relationship between IQ and fertility in sibling groups where there is variance. In those models we adjust for everything that is shared during upbringing such as parental social class, parental values and personality traits, neighborhood of upbringing, parental intelligence, and to some extent shared genes. We show regression models with and without controls for educational achievement.

First we present models on the effect of IQ scores (as measured on a stanine scale) on completed fertility. In Table 2 we find a clear positive effect of an increase in our IQ stanine measure on completed fertility, consistent with our previous descriptive results. Full results tables can be found in the supplementary information in Tables S9 to S12. Using a continuous measure of IQ we find a positive association both without adjustment for education and childhood conditions (β=0.034, an increase in the stanine measure by 1 which represents 0.5 SD) and a slightly stronger effect after adjustment (β=0.041). In other words, we once again find that the IQ-fertility gradient is stronger within educational groupings. When we use a categorical measurement of IQ we once again find a similar picture to our descriptive results, with most of the positive relationship between IQ and fertility related to very low fertility among the group with low IQ scores. We also examined within-family variation for the relationship between education and IQ using sibling fixed effects models. Those analyses reveal stronger effects (β=0.075 without controls, and β=0.074 with controls for educational attainment and birth order) than our full population analyses. This implies that when controlling for parental intelligence and socioeconomic and educational background, neighborhood and primary/secondary school environment, and to some extent genes, the relationship between education and fertility is about twice as strong. Once additional confounding factors are adjusted for it appears that IQ has a more positive effect on completed fertility. When we examine the effect of being in a specific IQ group on completed fertility in our between-brother models we find even stronger differences between our lowest IQ groups and the highest IQ groups. Relative to the median the lowest group have 0.58 less children, and the highest 0.14 more children. Men with scores 81 to 89 have 0.13 less children than the median, and men with scores 111 to 119 have 0.08 more children than the median. We find that the effect of increasing IQ is monotonically associated with higher fertility, including for men with higher IQ scores.

Table 2: Fertility by IQ for Swedish Men Born 1951-1967. Upper table: Continuous measure of IQ (stanine scale). Lower table: Categorical measure of IQ. Model 1 includes control variables for birth year. Model 2 includes control variables for birth year, educational attainment, birth order, and family size. Full results tables can be found in the supplementary information in Tables S9 to S12.

Figure 9: Probability of parity transition by IQ group (relative median IQ group) for Swedish men born 1951-1967. Between family comparison (no fixed effects)

Figure 10: Probability of parity transition by IQ group (relative median IQ group) for Swedish men born 1951-1967. Within family comparison (fixed effects)

Regression models parity

In addition to models using completed fertility as our outcome variable, we also ran separate linear probability models by parity transition. We show these models in Figure 9 (between-family comparisons) and Figure 10 (within-family comparisons). These figures show the gradient between the parity transition and IQ group, where each line represent a model for that parity transition with the reference category as our median IQ group. We clearly find that men with lower IQ scores are much less likely to have a first and second child than other categories of men. This is true for all IQ categories below the median IQ score. We find that the propensity for the common parity transitions to 1^{st} to 3^{rd} child are more common among men with high IQ scores, but that for very high parity transitions, men with lower IQ scores are overrepresented. Consistent with earlier results, the positive fertility IQ gradient is stronger in our fixed effects models. We present full regression results in Tables S13-S16 in the Supplementary Information. We also show regression-based estimates based on progression to a new childbearing partner similar to the descriptive pattern presented in Figure 4. The estimates from those regressions models are consistent with our descriptive pattern, and are shown in full in Tables S17 and S18 in the Supplementary Information

Conclusions

Overall we find a clear positive gradient between intelligence, as measured by Swedish military conscription tests at age 17 to 20, and later fertility. We use superior data to earlier research on this topic, and contrary to most previous research we find an unambiguous positive relationship between cognitive ability and fertility. This is particular true when using sibling models. In particular, men with very low IQ scores are more likely to be childless or have only 1 child, while the selection into 2 and 3 child families among men with high IQ scores results in an overall strong positive gradient between intelligence and fertility. At higher parities the pattern is more ambiguous, but childbirths above parity 3 provide a very small contribution to overall childbearing in Sweden, and therefore the overall gradient between fertility and intelligence. We also find a similar trend for men within categories of achieved education, suggesting that the pattern we observe is not merely mediated through education. Within each educational level, we still find that fertility is higher amongst men with higher IQ scores. These results are consistent both in descriptive results and in our regression models, and are stronger after adjusting for shared childhood and background characteristics. That is to say, the relationship between cognitive ability and fertility is clear even after taking account of socioeconomic status in the family of origin, other shared environmental factors during childhood, as well as educational experiences. When we adjust for parental background characteristics we find that the group with the lowest IQ scores (below 76) have 0.58 fewer children than men with median IQ, and men with the highest IQ scores (above 126) have 0.14 more children.

These findings expand our knowledge about cognitive ability and fertility in several respects. First, we use a larger and more representative dataset than all previous research on fertility and cognitive ability. Second, we provide a rich and detailed description of the fertility outcomes, including factors such as parity transitions, childbearing with sequential partners, measurement of fertility at various ages, and age at first birth. As such we provide a better understanding of how and what underlying factors explain how intelligence is related to childbearing. We also show that just focusing on the linear gradient between IQ and childbearing ignores important differences in parity transitions that explain this gradient. Furthermore, by examining differences by age of first birth we demonstrate the importance of allowing individuals to complete their fertility, in order to accurately assess the relationship between IQ scores and fertility. As the differences in level of childbearing between IQ groups are smaller than the relationship between timing of birth and intelligence, using early age cut-off points risks severely biasing the results for the overall gradient.

Critically, our study includes information on the complete population of Sweden, including people that for various reasons would not be included in standard social science surveys. While we have a share of our population that did not attend the conscription tests, and a smaller portion that were not required to take the conscription IQ test, we know the number of these individuals as well as their subsequent childbearing and educational trajectories. As much previous research on intelligence and childbearing has been interested in population-level outcomes, this is a clear improvement over previous research on this topic.

Our finding of a positive gradient between cogitative ability and fertility is consistent with emerging evidence that a wide variety of status indicators are positively associated with fertility in developed societies. The evidence for such associations are particularly strong for countries in the Nordic region. A positive macro-level association between income and fertility has been observed in developed countries over recent decades (e.g. Sobotka et al 2011). In Sweden and the other Nordic countries, income and labor force participation are also positively associated with fertility decisions at the individual-level for both men and women (Andersson 2000, Andersson & Scott 2008, Jalovaara & Miettinen 2013). In Sweden a positive association between education and fertility has been observed for men for several decades, while the negative gradient has disappeared for women over time (Jalovaara et al 2017). Interestingly, we find that the IQ-fertility gradient is more positive within educational levels than at the population-level. In other words, despite the very strong relationship between cognitive ability and education, we find that the association between cognitive ability and fertility is not mediated through education. The positive association between cognitive ability and reproduction is also consistent with expectations from evolutionary biology, unlike previous findings of a negative association. A positive association between cognitive ability and reproduction must have existed at many time points during hominin evolution the last million years.

We note that our findings are inconsistent with a large literature on this topic predicting "dysgenic deterioration" of the population (e.g. Lynn 1999, Lynn & Van Court 2004, of Menie et al 2016, Peach et al 2014, Retherford & Sewell 1988, Vining 1995, Woodley & Meisenberg 2013), through an increasing prevalence of genes associated with high fertility and low IQ in subsequent generations. We find an unambiguous positive association for all of the birth cohorts that we study. We also note that the very strong positive association between lower IQ scores and early age at first birth will, given genetically heritable fertility, mean that the distribution of high IQ traits will increase in subsequent generations. In a population with above replacement fertility earlier childbearing would result in the increase of a quicker reproducing trait, but in a society with below replacement level fertility, such as in the contemporary west, the effect is reversed and the population proportion of a slower reproducing trait will increase as a share of the total population over time.

A tentative explanation for our finding that higher intelligence is associated with higher fertility is that contemporary rich societies are once again experiencing a general positive association between factors such as intelligence, wealth, and income and childbearing. That relationship was transformed during the industrial revolution and second demographic transition in which high status groups first reduced their fertility (Dribe et al 2014, Livi-Bacci 1986), and adopted values and behaviors associated with restraint, and ideational changes such as what are sometimes described as post-materialist values (e.g Van de Kaa 2001). The observation of strikingly low fertility among individuals with the lowest IQ scores and the non-tested group, also demonstrates that socially disadvantaged groups have lower fertility than other groups in society. The differences shown in our within-family models are very substantial with these groups having less than half the children of the rest of the population in sibling comparison models. Our results suggest that socially disadvantaged groups of Swedish males either have low fertility preferences, or are constricted in their opportunities to act upon their fertility preferences. Such differences might be related to physiological or socioeconomic limitations, or difficulties in finding a partner for childrearing. This is relevant from a policy viewpoint as resources are increasingly targeted at involuntary childlessness, and childlessness is associated with a number of negative health outcomes (Kendig et al 2007).

While many life choices associated with lower fertility may historically have been more common among individuals with high intelligence, our interpretation is that such values are likely now more universal in societies such as contemporary Sweden. While post-materialist values (e.g. Van de Kaa 2001) may still be associated with lower fertility and remain widespread, they are likely less associated with income, intelligence or wealth. Instead, we find that successful individuals are more likely to be able to afford and achieve modal and preferred family sizes (2 or 3 children), which are above the population fertility mean, which results in an unambiguous positive relationship between intelligence and fertility. A positive fertility gradient for cognitive ability is probably mediated both by accumulation of resources and status of individuals with high IQ scores, as well as that high IQ might be a personality trait that makes men more attractive on the partner market (cf. Miller 2000). In most affluent societies today, people's expressed fertility desires are higher than the fertility levels observed in the population. We think that a plausible future scenario is that many societies will see a reemergence of a pattern in which high intelligence and other dimensions of status are positively associated with fertility. Such a scenario would also likely imply a correlation between poor health, mortality, as well as various disabilities, and low childbearing (cf. Barclay et al 2016).

Due to the nature of our data, our analyses are restricted only to men. A major task of future research on this topic is to find comparably large and representative datasets that also include women. Such datasets do exist – for example, both men and women are conscripted by the military in Israel – but institutional barriers may prevent the widespread use of these data by researchers. A lack of data on women means that it is also difficult for us to project how the relationship between cognitive ability and fertility will translate into the distribution of cognitive ability in future generations.

We have analyzed men born in Sweden in the 1950s and 1960s. Sweden is a relatively homogenous and wealthy nation with a developed welfare system, and therefore our findings might not be generalizable everywhere. Some social phenomena and social trends have emerged in Scandinavia before they have become the norm elsewhere (Surkyn & Lesthaeghe 2004). The evolution of a positive intelligence and status gradient for fertility may be one such phenomenon. However, we might note that given that the Swedish welfare state protects the living standards of the more vulnerable in society, structural constraints on the ability of men with low cognitive scores to realize their fertility preferences may be stronger elsewhere. We expect that more researchers will find a positive relationship between intelligence and fertility. We also expect that such effects will be larger when researchers examine gradients within various social strata and adjust for parental background factors.

Acknowledgments

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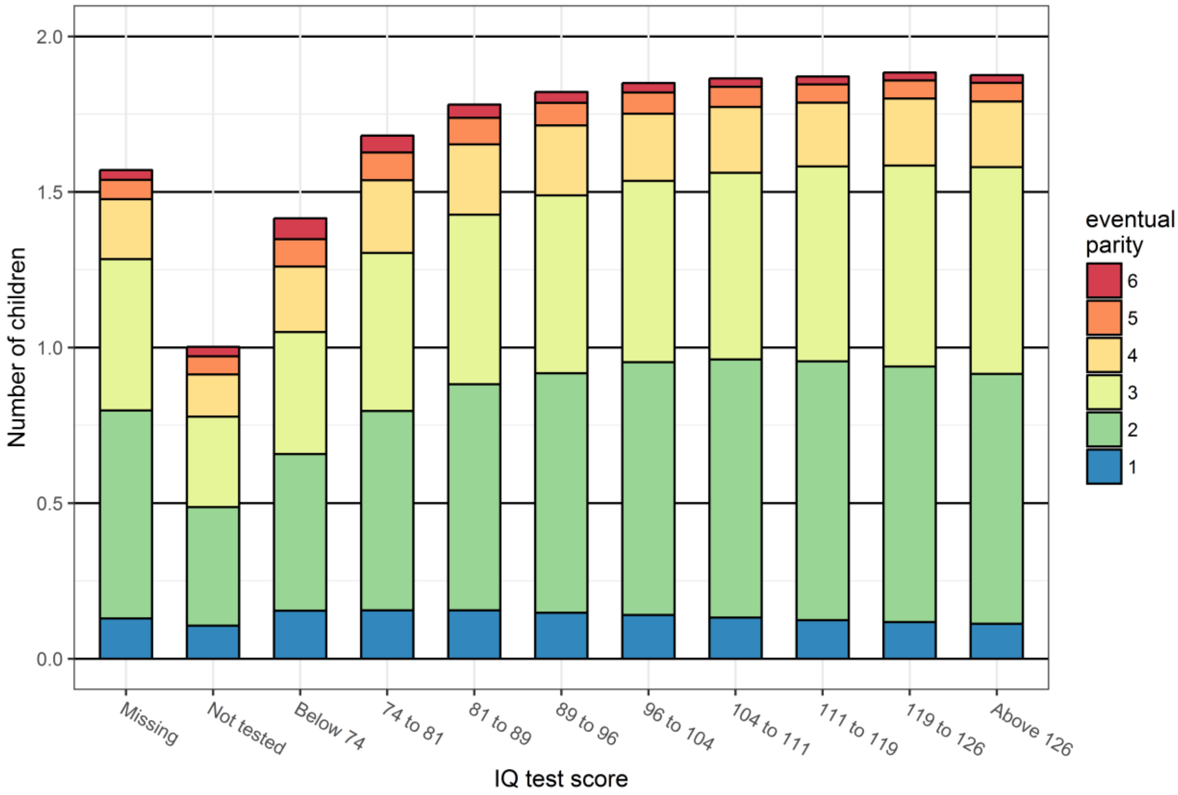

Figure 1: Completed fertility by IQ category for Swedish men born 1951-1967. Contribution to completed fertility by eventual parity of the men.

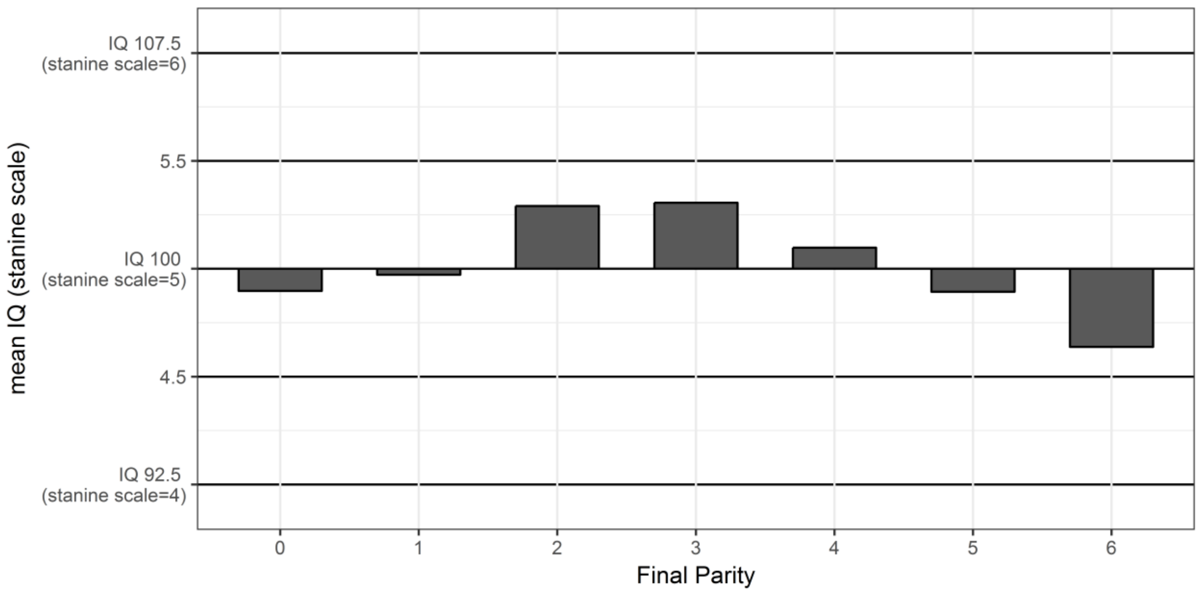

Figure 2: Mean IQ (measured on a discrete stanine scale) for Swedish men born 1951-1967 by completed fertility.

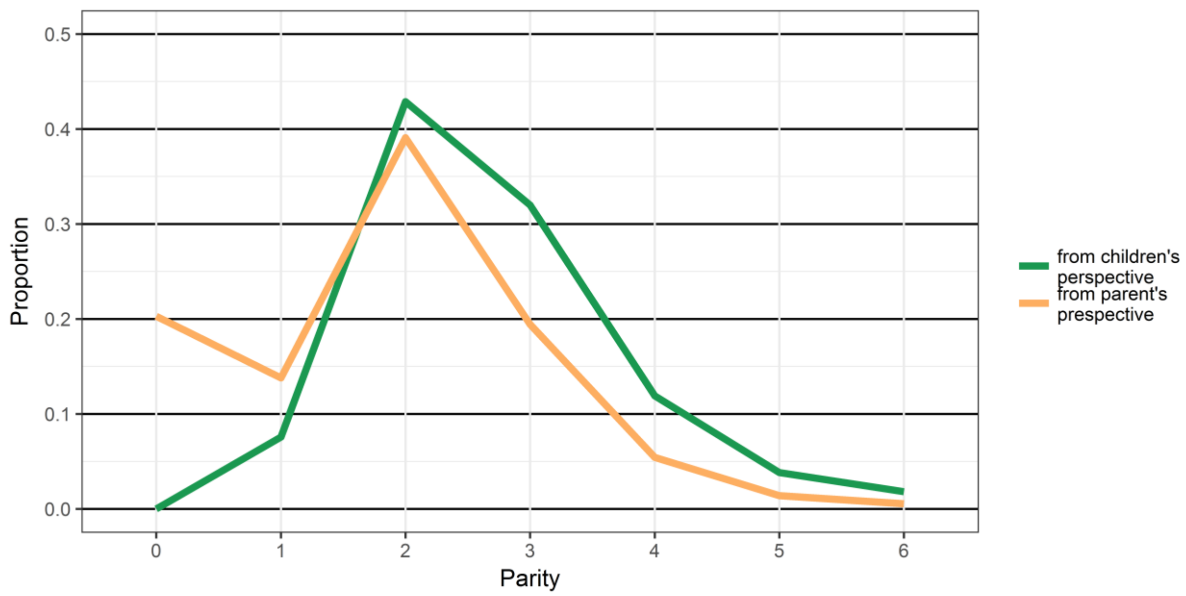

Figure 3: Distribution of completed fertility for Swedish men born 1951-1967, as well as from the children's perspective born to those fathers.

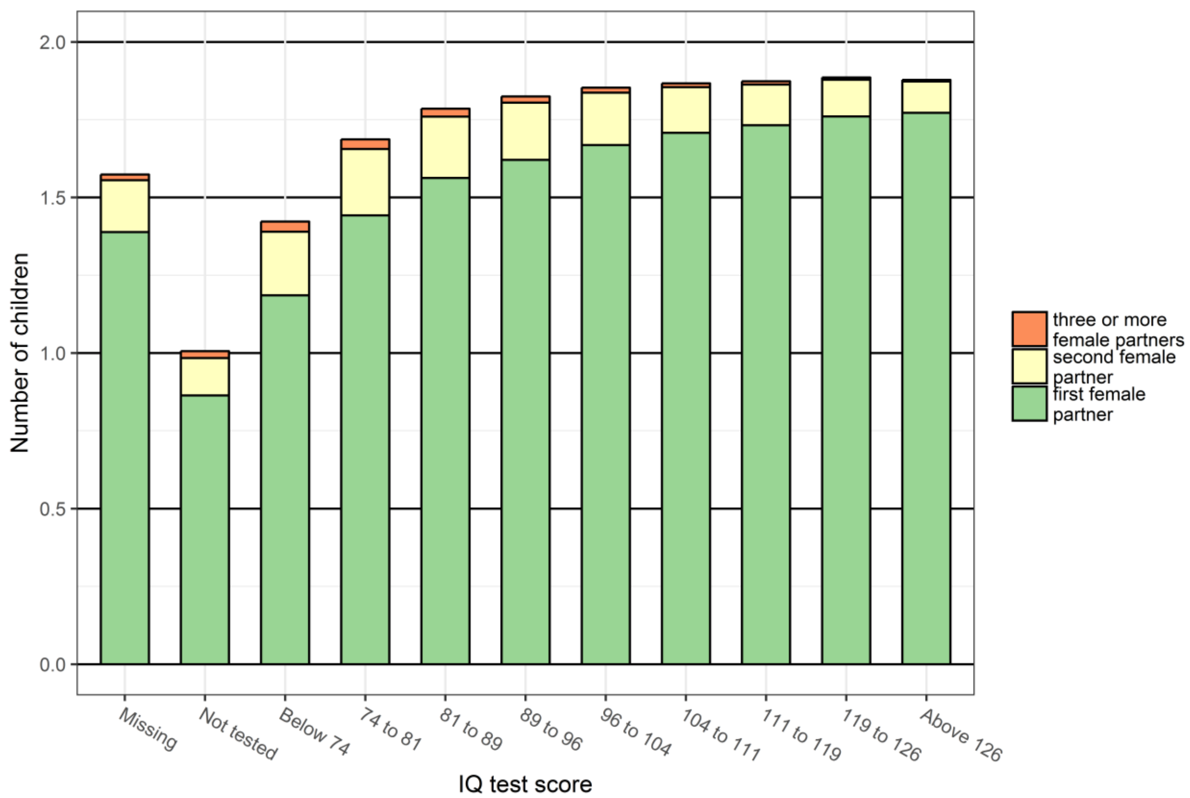

Figure 4: Completed fertility by IQ category for Swedish men born 1951-1967. Contribution to completed fertility by children with first childbearing partner, second partner, and third or higher order partner.

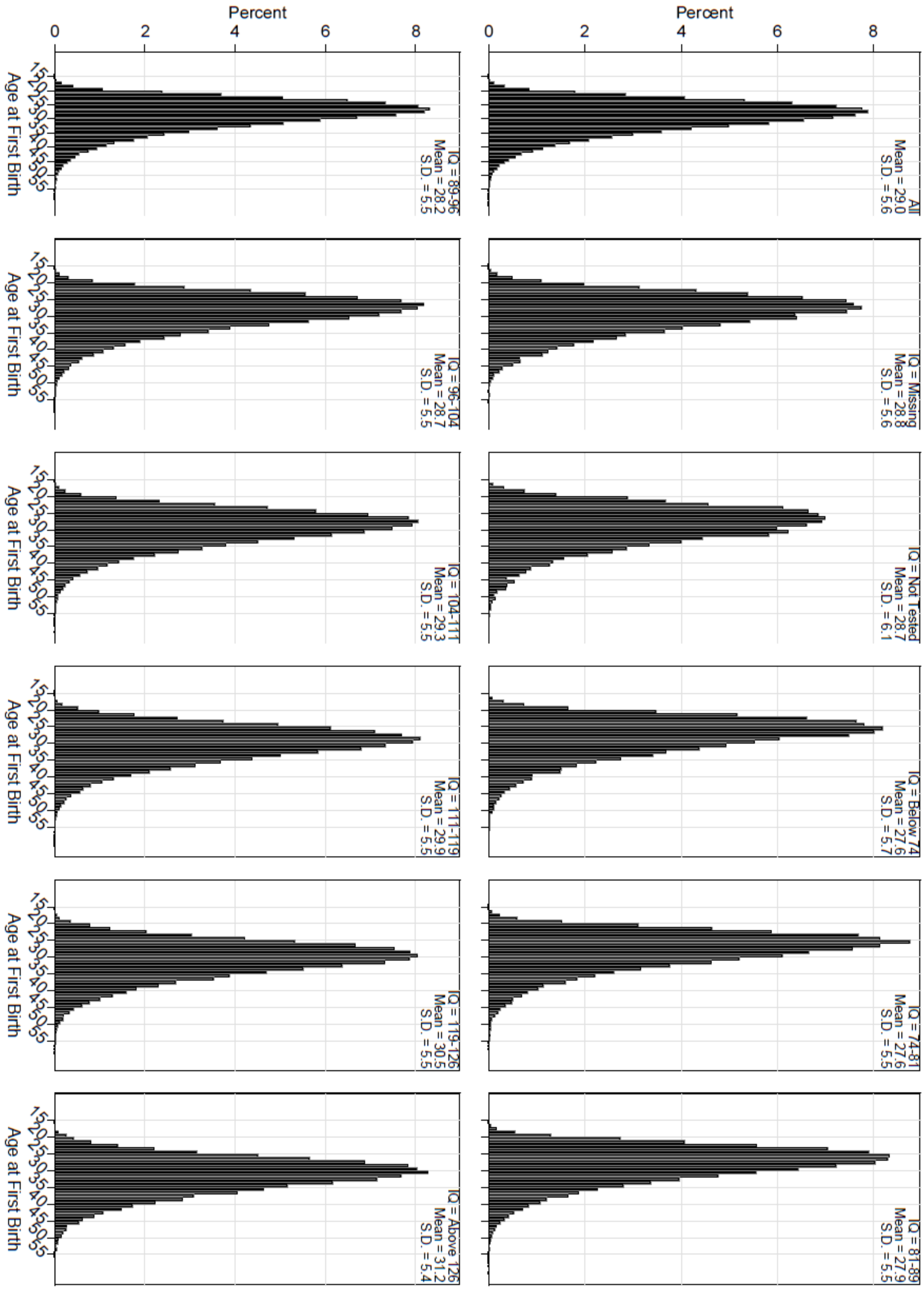

Figure 5: Distribution of age at first birth by IQ scores for Swedish men with at least one child born 1951-1967.

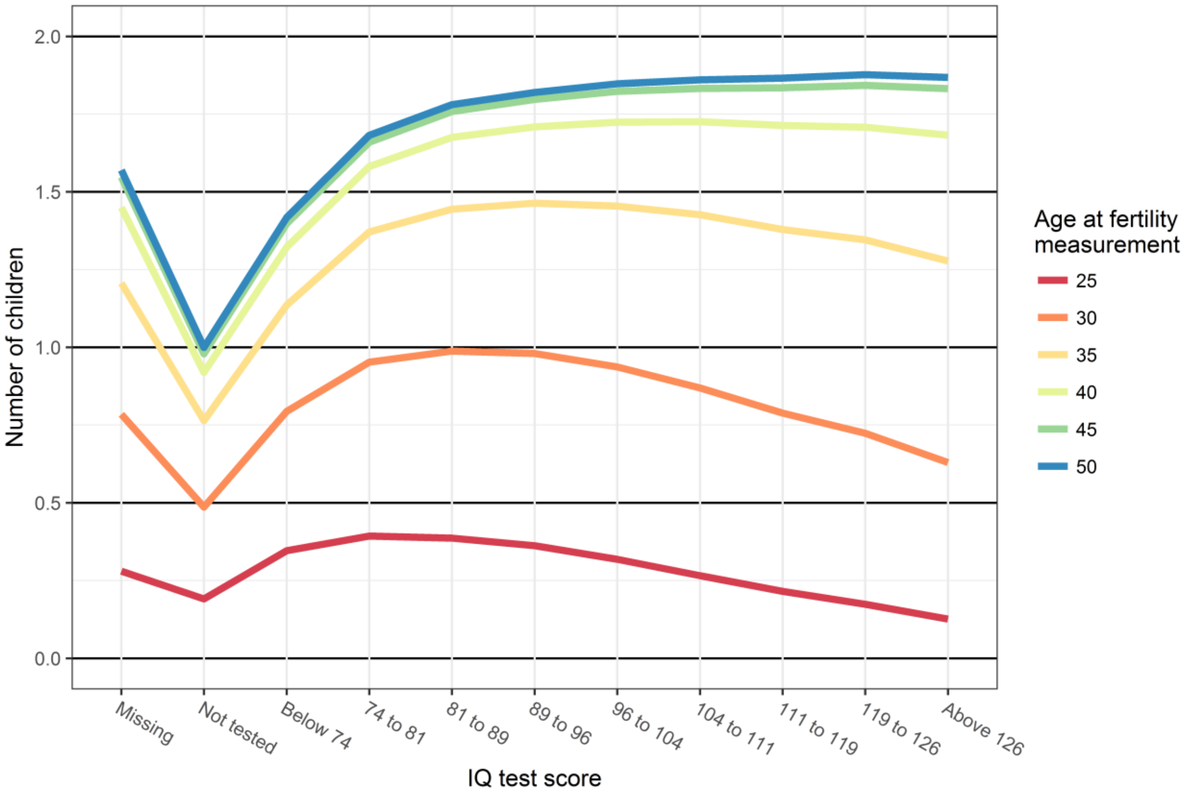

Figure 6: Fertility by IQ category by age of measurement of fertility for Swedish men born 1951-1967.

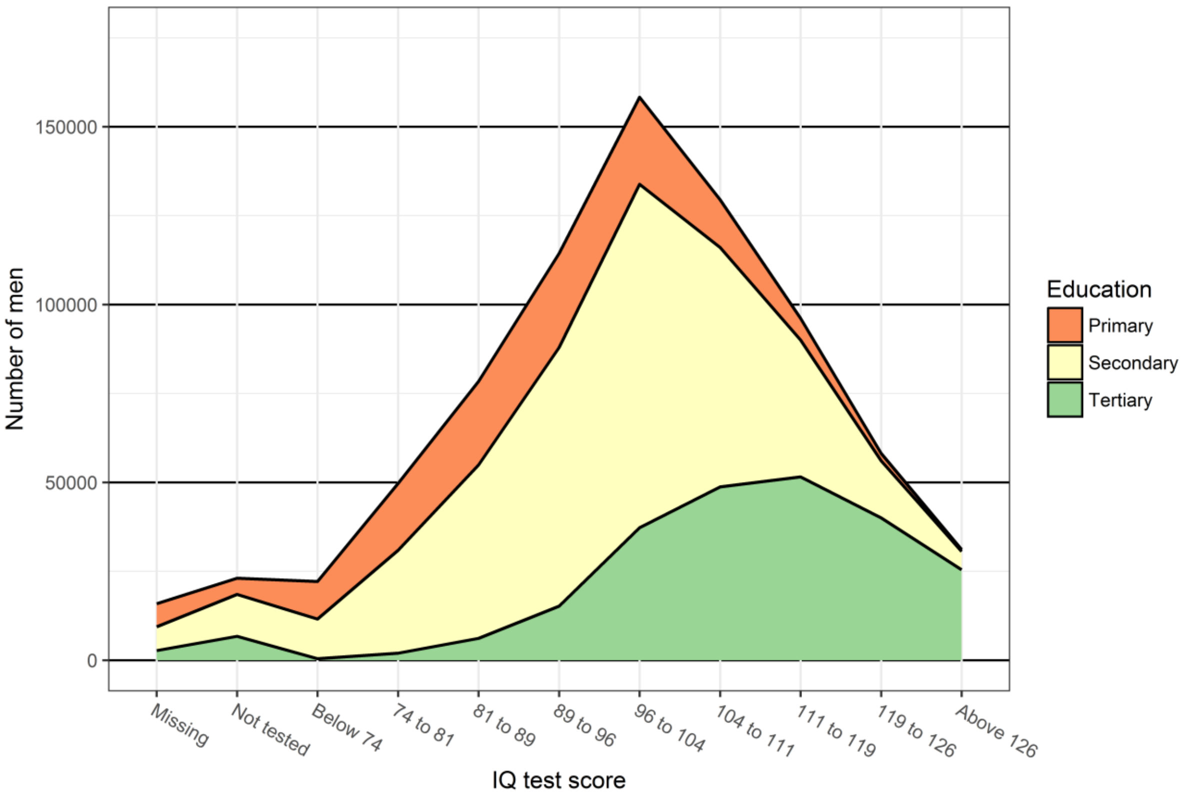

Figure 7: Number of men by education (measured at 2012) and IQ scores for Swedish men born 1951- 1967 (cumulative number of men).

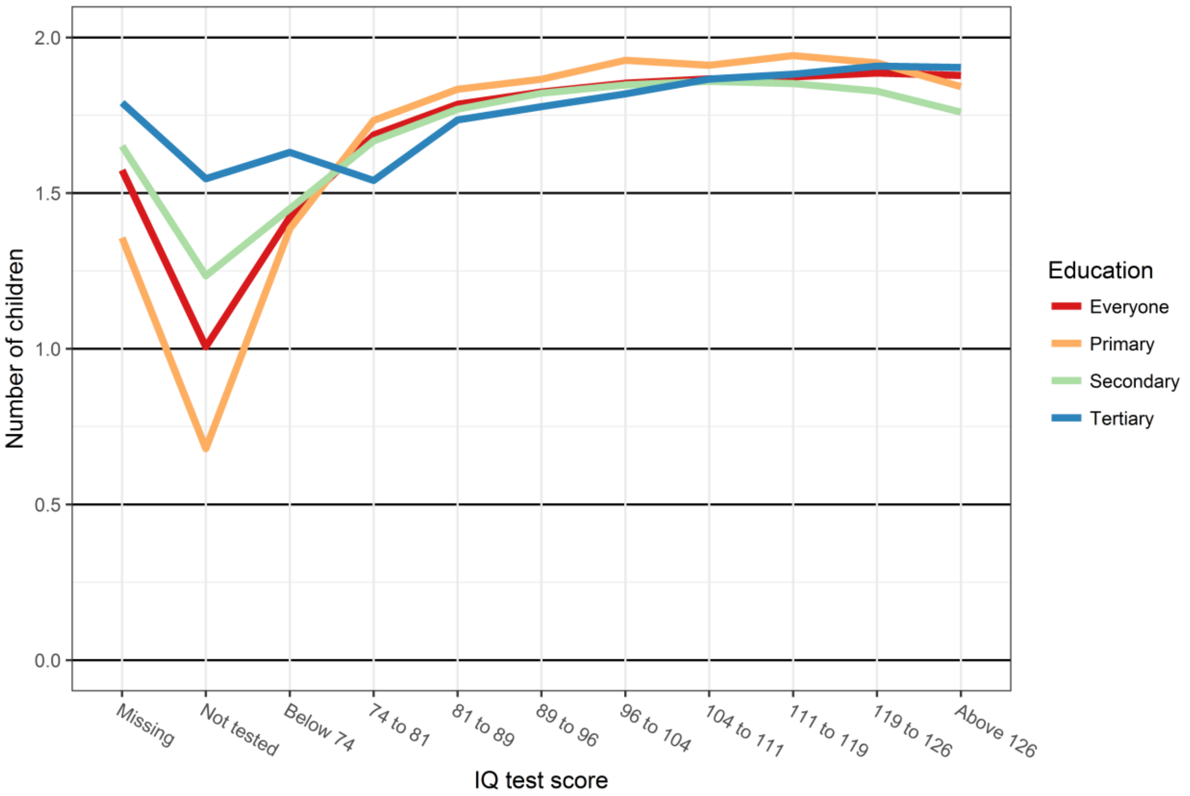

Figure 8: Completed fertility by IQ category for Swedish men born 1951-1967 by educational level.

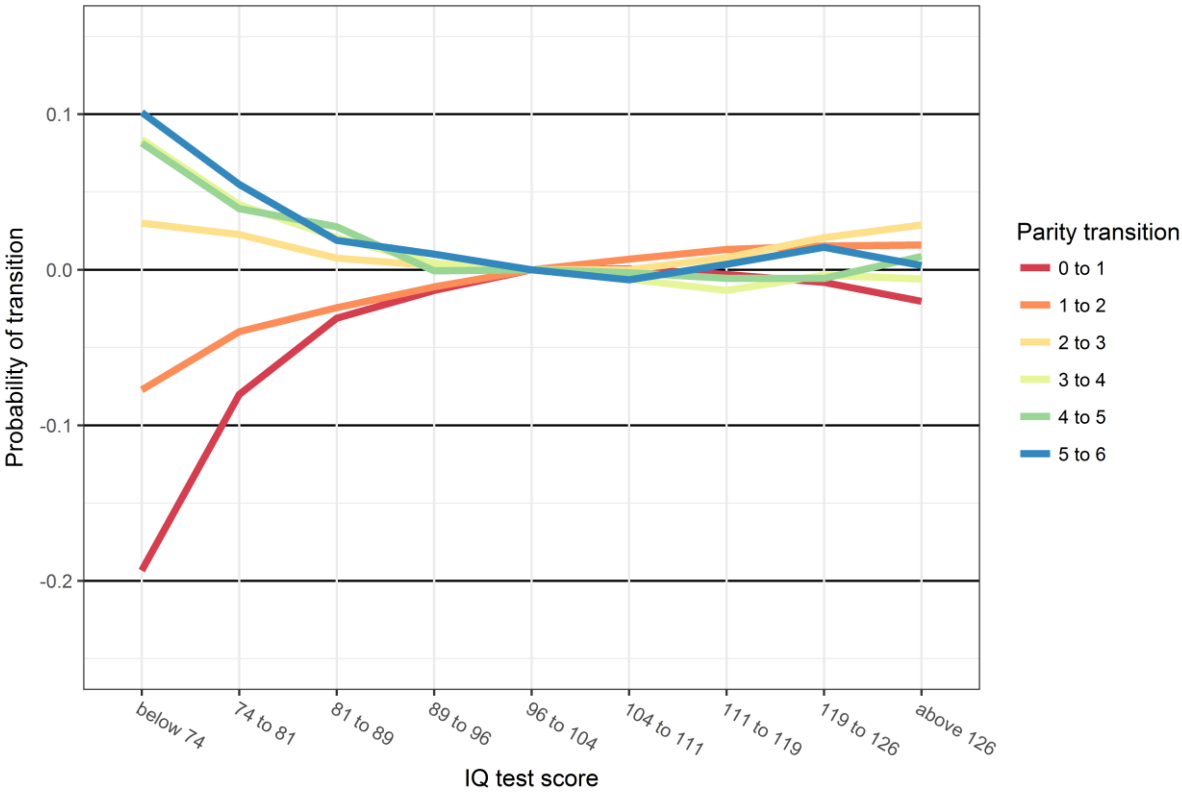

Figure 9: Probability of parity transition by IQ group (relative median IQ group) for Swedish men born 1951-1967. Between family comparison (no fixed effects)

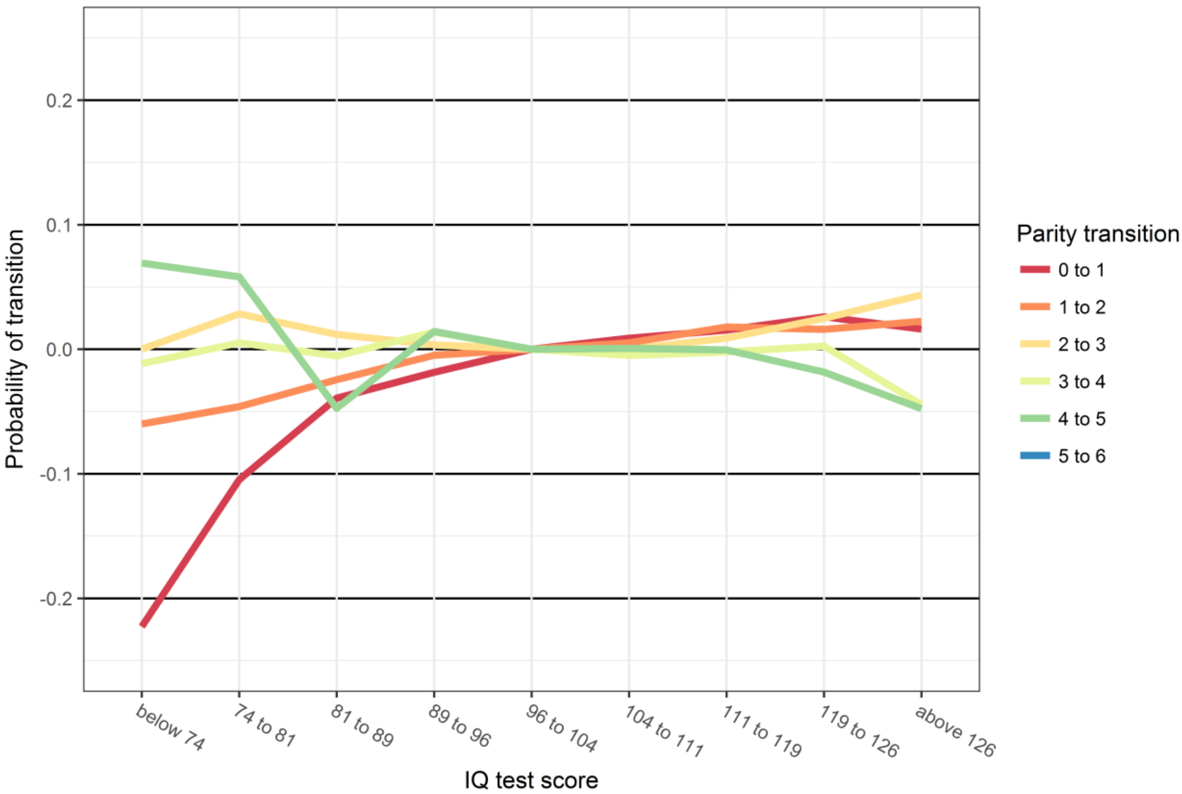

Figure 10: Probability of parity transition by IQ group (relative median IQ group) for Swedish men born 1951-1967. Within family comparison (fixed effects)

TABLES

TABLE 1. Mean IQ (stanine scale) by parity and educational attainment in 2012 for Swedish men born 1951-1967.

	Everyone			Education								
				Low			Medium			High		
Parity	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
0	149,877	4.90	2.06	28,078	3.55	1.81	79,296	4.57	1.84	42,243	6.41	1.67
1	101,906	4.97	1.91	18,337	3.83	1.69	56,189	4.68	1.72	27,264	6.35	1.63
2	288,622	5.29	1.86	44,063	4.06	1.66	148,741	4.87	1.65	95,649	6.51	1.56
3	143,560	5.31	1.90	24,111	4.06	1.66	72,112	4.88	1.68	47,236	6.60	1.58
4	40,069	5.10	1.93	7,932	3.99	1.72	20,974	4.75	1.72	11,122	6.54	1.60
5	10,298	4.89	1.96	2,364	3.92	1.74	5,561	4.62	1.75	2,361	6.52	1.64
6+	4,077	4.64	2.03	1,060	3.67	1.80	2,203	4.40	1.81	808	6.55	1.62

TABLE 2. Fertility by IQ for Swedish men born 1951-1967. Upper table: continuous measure of IQ (stanine scale). Lower table: categorical measure of IQ. Model 1 includes control variables for birth year. Model 2 includes control variables for birth year, educational attainment, birth order, and family size. Full results tables can be found in the supplementary information in Tables S9 to S12.

		No Fixed Effects						Fixed Effects					
		Model 1			Model 2			Model 1			Model 2		
		β	se	95% CI	β	se	95% CI	β	se	95% CI	β	se	95% CI
IQ	Continuous	0.034	0.001	0.032, 0.04	0.041	0.001	0.040, 0.04	0.075	0.003	0.069, 0.081	0.074	0.003	0.067, 0.080
N		712,265			712,265			195,499			195,499		

		Model 1			Model 2			Model 1			Model 2		
		β	se	95% CI	β	se	95% CI	β	se	95% CI	β	se	95% CI
IQ	Below 74	-0.444	0.011	-0.464, -0.423	-0.466	0.011	-0.487, -0.445	-0.584	0.029	-0.641, -0.527	-0.564	0.029	-0.622, -0.507
	74 to 81	-0.173	0.007	-0.187, -0.160	-0.189	0.007	-0.203, -0.175	-0.295	0.020	-0.334, -0.256	-0.282	0.020	-0.321, -0.242
	81 to 89	-0.073	0.006	-0.084, -0.061	-0.083	0.006	-0.094, -0.072	-0.127	0.016	-0.159, -0.095	-0.118	0.016	-0.151, -0.086
	89 to 96	-0.035	0.005	-0.045, -0.026	-0.040	0.005	-0.049, -0.030	-0.062	0.014	-0.090, -0.034	-0.057	0.014	-0.085, -0.029
	96 to 104 (ref)	0.000			0.000			0.000			0.000		
	104 to 111	0.005	0.005	-0.004, 0.014	0.007	0.005	-0.002, 0.016	0.029	0.014	0.002, 0.056	0.022	0.014	-0.005, 0.049
	111 to 119	0.011	0.005	0.001, 0.021	0.012	0.005	0.002, 0.022	0.076	0.016	0.045, 0.107	0.059	0.016	0.028, 0.091
	119 to 126	0.023	0.006	0.012, 0.035	0.018	0.006	0.006, 0.030	0.121	0.019	0.083, 0.159	0.093	0.020	0.054, 0.132
	Above 126	0.019	0.008	0.003, 0.034	0.000	0.008	-0.016, 0.016	0.140	0.026	0.089, 0.190	0.094	0.026	0.042, 0.146
	Not Tested	-0.881	0.011	-0.903, -0.859	-0.832	0.011	-0.854, -0.810	-1.044	0.032	-1.106, -0.982	-0.979	0.032	-1.042, -0.916
	Missing	-0.212	0.010	-0.231, -0.193	-0.205	0.010	-0.223, -0.186	-0.264	0.029	-0.321, -0.206	-0.256	0.029	-0.313, -0.198
N		749,939			749,939			205,685			205,685		

SUPPLEMENTARY INFORMATION

TABLE S1. Mean number of children by IQ and educational attainment for Swedish men born 1951-1967.

				Education								
	Everyone			Low			Medium			High		
IQ	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Below 74	22,168	1.42	1.45	10,539	1.39	1.47	11,140	1.45	1.43	428	1.63	1.43
74 to 81	49,797	1.69	1.38	18,820	1.73	1.41	28,903	1.67	1.37	1,982	1.54	1.25
81 to 89	78,507	1.79	1.31	23,533	1.83	1.34	48,762	1.77	1.30	6,115	1.74	1.24
89 to 96	114,528	1.82	1.26	26,467	1.87	1.30	72,705	1.82	1.26	15,219	1.78	1.22
96 to 104	158,437	1.85	1.23	24,472	1.93	1.29	96,569	1.85	1.23	37,242	1.82	1.18
104 to 111	129,568	1.87	1.21	13,431	1.91	1.28	67,318	1.86	1.22	48,740	1.87	1.18
111 to 119	96,181	1.87	1.21	6,105	1.94	1.30	38,472	1.85	1.23	51,553	1.88	1.17
119 to 126	58,141	1.89	1.21	2,072	1.92	1.31	16,050	1.83	1.25	39,997	1.91	1.19
Above 126	31,082	1.88	1.23	506	1.84	1.52	5,157	1.76	1.29	25,407	1.90	1.21
Not Tested	16,769	1.01	1.34	6,522	0.68	1.24	6,670	1.23	1.39	2,704	1.55	1.30
Missing	23,968	1.57	1.33	4,561	1.36	1.44	11,769	1.65	1.32	6,733	1.79	1.20
Total	779,146	1.80	1.27	137,028	1.75	1.37	403,515	1.79	1.27	236,120	1.86	1.19

TABLE S2. Fertility by IQ and educational attainment for Swedish men born 1951-1967.

				Education										Education					
		Everyone		Low		Medium		High				Everyone		Low		Medium		High	
IQ	Parity	N	%	N	%	N	%	N	%	IQ	Parity	N	%	N	%	N	%	N	%
Below 74	0	8,465	38.2	4,257	40.4	4,046	36.3	136	31.8	104 to 111	0	23,671	18.3	2,514	18.7	12,391	18.4	8,740	17.9
	1	3,423	15.4	1,572	14.9	1,785	16.0	52	12.2		1	17,141	13.2	1,842	13.7	9,307	13.8	5,980	12.3
	2	5,577	25.2	2,488	23.6	2,949	26.5	132	30.8		2	53,723	41.5	5,089	37.9	27,522	40.9	21,091	43.3
	3	2,897	13.1	1,344	12.8	1,478	13.3	70	16.4		3	25,918	20.0	2,771	20.6	13,280	19.7	9,855	20.2
	4	1,167	5.3	568	5.4	570	5.1	23	5.4		4	6,855	5.3	868	6.5	3,605	5.4	2,376	4.9
	5	391	1.8	192	1.8	185	1.7	12	2.8		5	1,683	1.3	256	1.9	898	1.3	528	1.1
	6+	248	1.1	118	1.1	127	1.1	3	0.7		6+	577	0.5	91	0.7	315	0.5	170	0.4
74 to 81	0	13,421	27.0	4,944	26.3	7,879	27.3	563	28.4	111 to 119	0	17,719	18.4	1,121	18.4	7,358	19.1	9,218	17.9
	1	7,746	15.6	2,825	15.0	4,572	15.8	333	16.8		1	11,902	12.4	812	13.3	5,142	13.4	5,945	11.5
	2	15,952	32.0	5,991	31.8	9,278	32.1	670	33.8		2	40,016	41.6	2,304	37.7	15,551	40.4	22,145	43.0
	3	8,433	16.9	3,343	17.8	4,755	16.5	315	15.9		3	20,080	20.9	1,283	21.0	7,682	20.0	11,107	21.5
	4	2,910	5.8	1,156	6.1	1,667	5.8	81	4.1		4	4,929	5.1	415	6.8	2,041	5.3	2,471	4.8
	5	885	1.8	354	1.9	516	1.8	14	0.7		5	1,127	1.2	118	1.9	512	1.3	497	1.0
	6+	450	0.9	207	1.1	236	0.8	6	0.3		6+	408	0.4	52	0.9	186	0.5	170	0.3
81 to 89	0	17,199	21.9	5,023	21.3	10,775	22.1	1,367	22.4	119 to 126	0	10,850	18.7	409	19.7	3,277	20.4	7,151	17.9
	1	12,182	15.5	3,622	15.4	7,635	15.7	911	14.9		1	6,843	11.8	265	12.8	2,158	13.5	4,417	11.0
	2	28,530	36.3	8,246	35.0	17,933	36.8	2,323	38.0		2	23,885	41.1	766	37.0	6,209	38.7	16,905	42.3
	3	14,260	18.2	4,513	19.2	8,614	17.7	1,120	18.3		3	12,509	21.5	421	20.3	3,240	20.2	8,847	22.1
	4	4,441	5.7	1,458	6.2	2,669	5.5	308	5.0		4	3,131	5.4	157	7.6	899	5.6	2,075	5.2
	5	1,341	1.7	470	2.0	802	1.6	68	1.1		5	678	1.2	40	1.9	199	1.2	439	1.1
	6+	554	0.7	201	0.9	334	0.7	18	0.3		6+	245	0.4	14	0.7	68	0.4	163	0.4
89 to 96	0	22,945	20.0	5,242	19.8	14,457	19.9	3,197	21.0	Above 126	0	6,091	19.6	133	26.3	1,205	23.4	4,743	18.7
	1	16,907	14.8	3,917	14.8	10,888	15.0	2,076	13.6		1	3,484	11.2	64	12.7	705	13.7	2,715	10.7
	2	44,091	38.5	9,712	36.7	28,251	38.9	6,094	40.0		2	12,479	40.2	158	31.2	1,887	36.6	10,432	41.1
	3	21,812	19.1	5,268	19.9	13,604	18.7	2,923	19.2		3	6,889	22.2	91	18.0	983	19.1	5,815	22.9
	4	6,447	5.6	1,690	6.4	4,040	5.6	712	4.7		4	1,638	5.3	37	7.3	279	5.4	1,322	5.2
	5	1,661	1.5	452	1.7	1,045	1.4	159	1.0		5	373	1.2	14	2.8	73	1.4	286	1.1
	6+	665	0.6	186	0.7	420	0.6	58	0.4		6+	128	0.4	9	1.8	25	0.5	94	0.4
96 to 104	0	29,516	18.6	4,435	18.1	17,908	18.5	7,128	19.1	Not Tested	0	9,319	55.6	4,571	70.1	3,027	45.4	862	31.9
	1	22,278	14.1	3,418	14.0	13,997	14.5	4,835	13.0		1	1,782	10.6	577	8.9	877	13.2	323	12.0
	2	64,369	40.6	9,309	38.0	39,161	40.6	15,857	42.6		2	3,193	19.0	701	10.8	1,576	23.6	911	33.7
	3	30,762	19.4	5,077	20.8	18,476	19.1	7,184	19.3		3	1,627	9.7	400	6.1	781	11.7	444	16.4
	4	8,551	5.4	1,583	6.5	5,204	5.4	1,754	4.7		4	569	3.4	174	2.7	270	4.1	125	4.6
	5	2,159	1.4	468	1.9	1,331	1.4	358	1.0		5	194	1.2	68	1.0	92	1.4	33	1.2
	6+	802	0.5	182	0.7	492	0.5	126	0.3		6+	85	0.5	31	0.5	47	0.7	6	0.2
										Missing	0	7,390	30.8	1,905	41.8	3,200	27.2	1,403	20.8
											1	3,106	13.0	596	13.1	1,683	14.3	817	12.1
											2	8,010	33.4	1,108	24.3	4,099	34.8	2,793	41.5
											3	3,884	16.2	613	13.4	1,928	16.4	1,342	19.9
											4	1,154	4.8	229	5.0	623	5.3	301	4.5
											5	298	1.2	66	1.5	173	1.5	58	0.9
											6+	126	0.5	44	1.0	63	0.5	19	0.3

TABLE S3. Mean number of children by IQ and birth cohort for Swedish men born 1951-1967.

				Birth Cohort								
	Everyone			1951-1956			1957-1962			1963-1967		
IQ	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Below 74	22,168	1.42	1.45	8,970	1.44	1.45	5,927	1.43	1.47	7,271	1.39	1.43
74 to 81	49,797	1.69	1.38	17,700	1.73	1.39	15,653	1.67	1.40	16,444	1.65	1.35
81 to 89	78,507	1.79	1.31	27,536	1.83	1.34	23,679	1.79	1.32	27,292	1.73	1.26
89 to 96	114,528	1.82	1.26	41,540	1.87	1.29	34,781	1.84	1.27	38,207	1.77	1.22
96 to 104	158,437	1.85	1.23	51,293	1.92	1.27	45,049	1.87	1.24	62,095	1.79	1.18
104 to 111	129,568	1.87	1.21	48,913	1.93	1.24	37,826	1.88	1.22	42,829	1.79	1.16
111 to 119	96,181	1.87	1.21	37,280	1.94	1.24	27,387	1.89	1.21	31,514	1.77	1.15
119 to 126	58,141	1.89	1.21	22,994	1.97	1.25	16,126	1.89	1.22	19,021	1.78	1.15
Above 126	31,082	1.88	1.23	12,278	1.97	1.26	7,911	1.90	1.23	10,893	1.76	1.19
Not Tested	16,769	1.01	1.34	8,292	1.08	1.38	6,116	0.95	1.31	2,361	0.90	1.30
Missing	23,968	1.57	1.33	4,007	1.75	1.37	7,940	1.73	1.32	12,021	1.41	1.30

TABLE S4. Final parity by IQ and birth cohort for Swedish men born 1951-1967.

				Birth Cohort										Birth Cohort					
		Everyone		1951-1956		1957-1962		1963-1967				Everyone		1951-1956		1957-1962		1963-1967	
IQ	Parity	N	%	N	%	N	%	N	%	IQ	Parity	N	%	N	%	N	%	N	%
Below 74	0	8,465	38.2	3,414	38.1	2,291	38.7	2,760	38.0	104 to 111	0	23,671	18.3	8,564	17.5	6,985	18.5	8,122	19.0
	1	3,423	15.4	1,350	15.1	867	14.6	1,206	16.6		1	17,141	13.2	6,447	13.2	4,798	12.7	5,896	13.8
	2	5,577	25.2	2,219	24.7	1,475	24.9	1,883	25.9		2	53,723	41.5	19,286	39.4	15,572	41.2	18,865	44.1
	3	2,897	13.1	1,227	13.7	790	13.3	880	12.1		3	25,918	20.0	10,566	21.6	7,726	20.4	7,626	17.8
	4	1,167	5.3	499	5.6	319	5.4	349	4.8		4	6,855	5.3	3,022	6.2	2,068	5.5	1,765	4.1
	5	391	1.8	167	1.9	120	2.0	104	1.4		5	1,683	1.3	732	1.5	522	1.4	429	1.0
	6+	248	1.1	94	1.1	65	1.1	89	1.2		6+	577	0.5	296	0.6	155	0.4	126	0.3
74 to 81	0	13,421	27.0	4,606	26.0	4,416	28.2	4,399	26.8	111 to 119	0	17,719	18.4	6,464	17.3	5,031	18.4	6,224	19.8
	1	7,746	15.6	2,706	15.3	2,344	15.0	2,696	16.4		1	11,902	12.4	4,688	12.6	3,202	11.7	4,012	12.7
	2	15,952	32.0	5,655	32.0	4,824	30.8	5,473	33.3		2	40,016	41.6	14,745	39.6	11,371	41.5	13,900	44.1
	3	8,433	16.9	3,131	17.7	2,724	17.4	2,578	15.7		3	20,080	20.9	8,355	22.4	5,895	21.5	5,830	18.5
	4	2,910	5.8	1,117	6.3	917	5.9	876	5.3		4	4,929	5.1	2,241	6.0	1,459	5.3	1,229	3.9
	5	885	1.8	308	1.7	296	1.9	281	1.7		5	1,127	1.2	562	1.5	314	1.2	251	0.8
	6+	450	0.9	177	1.0	132	0.8	141	0.9		6+	408	0.4	225	0.6	115	0.4	68	0.2
81 to 89	0	17,199	21.9	5,903	21.4	5,262	22.2	6,034	22.1	119 to 126	0	10,850	18.7	4,011	17.4	3,072	19.1	3,767	19.8
	1	12,182	15.5	4,219	15.3	3,563	15.1	4,400	16.1		1	6,843	11.8	2,696	11.7	1,807	11.2	2,340	12.3
	2	28,530	36.3	9,624	35.0	8,535	36.0	10,371	38.0		2	23,885	41.1	8,979	39.1	6,594	40.9	8,312	43.7
	3	14,260	18.2	5,290	19.2	4,382	18.5	4,588	16.8		3	12,509	21.5	5,327	23.2	3,492	21.7	3,690	19.4
	4	4,441	5.7	1,700	6.2	1,376	5.8	1,365	5.0		4	3,131	5.4	1,501	6.5	889	5.5	741	3.9
	5	1,341	1.7	567	2.1	398	1.7	376	1.4		5	678	1.2	351	1.5	201	1.3	126	0.7
	6+	554	0.7	233	0.9	163	0.7	158	0.6		6+	245	0.4	129	0.6	71	0.4	45	0.2
89 to 96	0	22,945	20.0	8,202	19.7	7,035	20.2	7,708	20.2	Above 126	0	6,091	19.6	2,179	17.8	1,523	19.3	2,389	21.9
	1	16,907	14.8	6,048	14.6	4,990	14.4	5,869	15.4		1	3,484	11.2	1,401	11.4	833	10.5	1,250	11.5
	2	44,091	38.5	15,336	36.9	13,251	38.1	15,504	40.6		2	12,479	40.2	4,690	38.2	3,233	40.9	4,556	41.8
	3	21,812	19.1	8,436	20.3	6,684	19.2	6,692	17.5		3	6,889	22.2	2,952	24.0	1,755	22.2	2,182	20.0
	4	6,447	5.6	2,532	6.1	2,108	6.1	1,807	4.7		4	1,638	5.3	802	6.5	434	5.5	402	3.7
	5	1,661	1.5	705	1.7	506	1.5	450	1.2		5	373	1.2	194	1.6	90	1.1	89	0.8
	6+	665	0.6	281	0.7	207	0.6	177	0.5		6+	128	0.4	60	0.5	43	0.5	25	0.2
96 to 104	0	29,516	18.6	9,164	17.9	8,533	18.9	11,819	19.0	Not Tested	0	9,319	55.6	4,404	53.1	3,498	57.2	1,417	60.0
	1	22,278	14.1	7,117	13.9	6,146	13.6	9,015	14.5		1	1,782	10.6	890	10.7	669	10.9	223	9.5
	2	64,369	40.6	19,728	38.5	17,893	39.7	26,748	43.1		2	3,193	19.0	1,648	19.9	1,113	18.2	432	18.3
	3	30,762	19.4	10,916	21.3	9,071	20.1	10,775	17.4		3	1,627	9.7	896	10.8	548	9.0	183	7.8
	4	8,551	5.4	3,199	6.2	2,466	5.5	2,886	4.7		4	569	3.4	303	3.7	194	3.2	72	3.1
	5	2,159	1.4	818	1.6	696	1.5	645	1.0		5	194	1.2	102	1.2	68	1.1	24	1.0
	6+	802	0.5	351	0.7	244	0.5	207	0.3		6+	85	0.5	49	0.6	26	0.4	10	0.4
										Missing	0	7,390	30.8	1,067	26.6	2,023	25.5	4,300	35.8
											1	3,106	13.0	494	12.3	1,007	12.7	1,605	13.4
											2	8,010	33.4	1,342	33.5	2,865	36.1	3,803	31.6
											3	3,884	16.2	758	18.9	1,430	18.0	1,696	14.1
											4	1,154	4.8	232	5.8	451	5.7	471	3.9
											5	298	1.2	84	2.1	110	1.4	104	0.9
											6+	126	0.5	30	0.8	54	0.7	42	0.4

TABLE S5. Mean number of children by partner order and IQ for Swedish men born 1951-1967.

	Childbearing Partner Order					
	1		2		3+	
IQ	Mean	SD	Mean	SD	Mean	SD
Below 74	1.19	1.20	0.20	0.63	0.03	0.27
74 to 81	1.44	1.17	0.21	0.63	0.03	0.27
81 to 89	1.56	1.14	0.20	0.60	0.03	0.24
89 to 96	1.62	1.12	0.18	0.58	0.02	0.20
96 to 104	1.67	1.10	0.17	0.55	0.02	0.18
104 to 111	1.71	1.10	0.15	0.52	0.01	0.16
111 to 119	1.73	1.11	0.13	0.49	0.01	0.15
119 to 126	1.76	1.13	0.12	0.47	0.01	0.11
Above 126	1.77	1.16	0.10	0.44	0.00	0.09
Not Tested	0.86	1.15	0.12	0.48	0.02	0.22
Missing	1.39	1.17	0.17	0.54	0.02	0.19

TABLE S6. Mean number of children by IQ and age at measurement for Swedish men born 1951-1967.

	Age at Measurement																	
	25			30			35			40			45			50		
IQ	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Below 74	22,168	0.35	0.65	22,168	0.79	1.02	22,168	1.14	1.24	22,168	1.32	1.37	22,168	1.40	1.43	22,168	1.42	1.44
74 to 81	49,797	0.39	0.67	49,797	0.95	1.04	49,797	1.37	1.23	49,797	1.58	1.32	49,797	1.66	1.36	49,797	1.68	1.38
81 to 89	78,507	0.39	0.66	78,507	0.99	1.02	78,507	1.44	1.18	78,507	1.68	1.26	78,507	1.76	1.29	78,507	1.78	1.30
89 to 96	114,528	0.36	0.64	114,528	0.98	1.01	114,528	1.46	1.16	114,528	1.71	1.22	114,528	1.80	1.25	114,528	1.82	1.26
96 to 104	158,437	0.32	0.61	158,437	0.94	0.99	158,437	1.45	1.14	158,437	1.72	1.19	158,437	1.82	1.21	158,437	1.85	1.22
104 to 111	129,568	0.27	0.56	129,568	0.87	0.97	129,568	1.43	1.13	129,568	1.73	1.18	129,568	1.83	1.20	129,568	1.86	1.21
111 to 119	96,181	0.21	0.51	96,181	0.79	0.94	96,181	1.38	1.13	96,181	1.71	1.17	96,181	1.83	1.19	96,181	1.87	1.20
119 to 126	58,141	0.17	0.47	58,141	0.72	0.92	58,141	1.35	1.14	58,141	1.71	1.19	58,141	1.84	1.20	58,141	1.88	1.21
Above 126	31,082	0.13	0.40	31,082	0.63	0.88	31,082	1.28	1.14	31,082	1.68	1.20	31,082	1.83	1.22	31,082	1.87	1.22
Not Tested	16,769	0.19	0.50	16,769	0.49	0.86	16,769	0.76	1.12	16,769	0.92	1.26	16,769	0.98	1.31	16,769	1.00	1.33
Missing	23,968	0.28	0.59	23,968	0.78	0.99	23,968	1.21	1.18	23,968	1.45	1.27	23,968	1.55	1.31	23,968	1.57	1.33

TABLE S7. Final parity by IQ and age at measurement for Swedish men born 1951-1967.

		Age											
		25		30		35		40		45		50	
IQ	Parity	N	%	N	%	N	%	N	%	N	%	N	%
Below 74	0	16,457	74.2	12,073	54.5	9,814	44.3	8,902	40.2	8,581	38.7	8,486	38.3
	1	3,992	18.0	4,396	19.8	3,925	17.7	3,519	15.9	3,416	15.4	3,423	15.4
	2	1,514	6.8	4,236	19.1	5,226	23.6	5,552	25.1	5,582	25.2	5,574	25.1
	3	182	0.8	1,181	5.3	2,300	10.4	2,732	12.3	2,858	12.9	2,897	13.1
	4	19	0.1	233	1.1	692	3.1	1,028	4.6	1,157	5.2	1,162	5.2
	5	4	0.0	36	0.2	159	0.7	299	1.4	368	1.7	386	1.7
	6+	0	0.0	13	0.1	52	0.2	136	0.6	206	0.9	240	1.1
74 to 81	0	35,018	70.3	22,769	45.7	16,812	33.8	14,480	29.1	13,652	27.4	13,471	27.1
	1	10,475	21.0	11,236	22.6	9,028	18.1	8,017	16.1	7,814	15.7	7,740	15.5
	2	3,847	7.7	11,924	24.0	15,312	30.8	15,882	31.9	15,956	32.0	15,959	32.1
	3	428	0.9	3,252	6.5	6,550	13.2	8,023	16.1	8,376	16.8	8,425	16.9
	4	27	0.1	523	1.1	1,649	3.3	2,465	5.0	2,796	5.6	2,895	5.8
	5	2	0.0	76	0.2	347	0.7	661	1.3	820	1.7	875	1.8
	6+	0	0.0	17	0.0	99	0.2	269	0.5	383	0.8	432	0.9
81 to 89	0	55,374	70.5	33,591	42.8	23,049	29.4	18,970	24.2	17,587	22.4	17,270	22.0
	1	16,538	21.1	18,899	24.1	14,753	18.8	12,721	16.2	12,309	15.7	12,176	15.5
	2	6,021	7.7	20,289	25.8	27,135	34.6	28,383	36.2	28,523	36.3	28,562	36.4
	3	543	0.7	4,943	6.3	10,655	13.6	13,487	17.2	14,136	18.0	14,252	18.2
	4	28	0.0	680	0.9	2,338	3.0	3,660	4.7	4,249	5.4	4,394	5.6
	5	3	0.0	92	0.1	446	0.6	954	1.2	1,226	1.6	1,322	1.7
	6+	0	0.0	13	0.0	131	0.2	332	0.4	477	0.6	531	0.7
89 to 96	0	82,754	72.3	49,188	43.0	32,320	28.2	25,729	22.5	23,546	20.6	23,047	20.1
	1	22,854	20.0	27,502	24.0	21,123	18.4	17,897	15.6	17,095	14.9	16,931	14.8
	2	8,175	7.1	29,955	26.2	41,468	36.2	43,731	38.2	44,075	38.5	44,121	38.5
	3	702	0.6	6,875	6.0	15,727	13.7	20,414	17.8	21,602	18.9	21,756	19.0
	4	39	0.0	886	0.8	3,221	2.8	5,209	4.6	6,131	5.4	6,401	5.6
	5	3	0.0	100	0.1	542	0.5	1,195	1.0	1,529	1.3	1,636	1.4
	6	1	0.0	22	0.0	127	0.1	353	0.3	550	0.5	636	0.6
96 to 104	0	119,462	75.4	70,948	44.8	44,549	28.1	33,894	21.4	30,416	19.2	29,647	18.7
	1	28,487	18.0	37,725	23.8	29,133	18.4	24,087	15.2	22,528	14.2	22,311	14.1
	2	9,608	6.1	39,941	25.2	58,835	37.1	63,510	40.1	64,459	40.7	64,431	40.7
	3	825	0.5	8,627	5.5	21,091	13.3	28,240	17.8	30,328	19.1	30,704	19.4
	4	52	0.0	1,062	0.7	4,040	2.6	6,866	4.3	8,139	5.1	8,480	5.4
	5	3	0.0	113	0.1	662	0.4	1,407	0.9	1,899	1.2	2,092	1.3
	6+	0	0.0	21	0.0	127	0.1	433	0.3	668	0.4	772	0.5

TABLE S8. Final parity by IQ and age at measurement for Swedish men born 1951-1967.

		Age											
		25		30		35		40		45		50	
IQ	Parity	N	%	N	%	N	%	N	%	N	%	N	%
104 to 111	0	102,400	79.0	61,950	47.8	37,558	29.0	27,707	21.4	24,554	19.0	23,817	18.4
	1	20,473	15.8	30,215	23.3	23,620	18.2	18,824	14.5	17,355	13.4	17,156	13.2
	2	6,189	4.8	30,641	23.7	48,121	37.1	52,700	40.7	53,720	41.5	53,763	41.5
	3	479	0.4	5,998	4.6	16,771	12.9	23,691	18.3	25,604	19.8	25,907	20.0
	4	26	0.0	693	0.5	2,972	2.3	5,315	4.1	6,439	5.0	6,753	5.2
	5	1	0.0	65	0.1	440	0.3	1,039	0.8	1,451	1.1	1,631	1.3
	6+	0	0.0	6	0.0	86	0.1	292	0.2	445	0.3	541	0.4
111 to 119	0	79,688	82.9	49,739	51.7	29,578	30.8	21,102	21.9	18,427	19.2	17,830	18.5
	1	12,584	13.1	21,820	22.7	17,315	18.0	13,441	14.0	12,171	12.7	11,946	12.4
	2	3,644	3.8	20,348	21.2	35,204	36.6	39,228	40.8	40,007	41.6	40,063	41.7
	3	257	0.3	3,826	4.0	11,855	12.3	17,910	18.6	19,778	20.6	20,032	20.8
	4	8	0.0	403	0.4	1,874	2.0	3,622	3.8	4,523	4.7	4,840	5.0
	5	0	0.0	40	0.0	293	0.3	676	0.7	960	1.0	1,084	1.1
	6+	0	0.0	5	0.0	62	0.1	202	0.2	315	0.3	386	0.4
119 to 126	0	50,032	86.1	32,065	55.2	18,934	32.6	13,296	22.9	11,358	19.5	10,927	18.8
	1	6,262	10.8	12,668	21.8	10,239	17.6	7,736	13.3	7,017	12.1	6,869	11.8
	2	1,701	2.9	11,103	19.1	20,507	35.3	23,238	40.0	23,857	41.0	23,910	41.1
	3	137	0.2	2,043	3.5	7,105	12.2	11,062	19.0	12,244	21.1	12,476	21.5
	4	9	0.0	232	0.4	1,166	2.0	2,304	4.0	2,914	5.0	3,087	5.3
	5	0	0.0	25	0.0	147	0.3	391	0.7	569	1.0	650	1.1
	6+	0	0.0	5	0.0	43	0.1	114	0.2	182	0.3	222	0.4
Above 126	0	27,866	89.7	18,698	60.2	11,005	35.4	7,522	24.2	6,376	20.5	6,138	19.8
	1	2,560	8.2	6,342	20.4	5,450	17.5	4,079	13.1	3,607	11.6	3,504	11.3
	2	608	2.0	5,031	16.2	10,382	33.4	12,022	38.7	12,436	40.0	12,496	40.2
	3	44	0.1	891	2.9	3,620	11.7	6,009	19.3	6,736	21.7	6,863	22.1
	4	3	0.0	108	0.4	516	1.7	1,197	3.9	1,534	4.9	1,614	5.2
	5	1	0.0	11	0.0	91	0.3	187	0.6	296	1.0	351	1.1
	6+	0	0.0	1	0.0	18	0.1	66	0.2	97	0.3	116	0.4
Not Tested	0	14,286	85.2	11,847	70.7	10,321	61.6	9,664	57.6	9,425	56.2	9,337	55.7
	1	1,862	11.1	2,380	14.2	2,075	12.4	1,850	11.0	1,789	10.7	1,791	10.7
	2	543	3.2	1,988	11.9	2,863	17.1	3,116	18.6	3,182	19.0	3,196	19.1
	3	64	0.4	445	2.7	1,142	6.8	1,487	8.9	1,592	9.5	1,610	9.6
	4	14	0.1	90	0.5	285	1.7	472	2.8	538	3.2	570	3.4
	5	0	0.0	15	0.1	60	0.4	135	0.8	175	1.0	186	1.1
	6+	0	0.0	4	0.0	23	0.1	45	0.3	68	0.4	79	0.5
Missing	0	18,894	78.8	13,002	54.3	9,557	39.9	8,018	33.5	7,484	31.2	7,398	30.9
	1	3,602	15.0	4,738	19.8	4,011	16.7	3,373	14.1	3,179	13.3	3,111	13.0
	2	1,313	5.5	4,863	20.3	7,125	29.7	7,896	32.9	8,003	33.4	8,025	33.5
	3	149	0.6	1,161	4.8	2,614	10.9	3,524	14.7	3,839	16.0	3,871	16.2
	4	9	0.0	174	0.7	530	2.2	883	3.7	1,090	4.6	1,150	4.8
	5	1	0.0	25	0.1	96	0.4	211	0.9	267	1.1	293	1.2
	6+	0	0.0	5	0.0	35	0.2	63	0.3	106	0.4	120	0.5

TABLE S9. Linear regression on number of children, no fixed effects. Swedish men born 1951-1967.

		Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI
IQ (stanine scale)		0.03	0.00	0.032, 0.04	0.04	0.00	0.040, 0.04
Birth Year	1951	0.12	0.01	0.107, 0.14	0.11	0.01	0.089, 0.12
	1952	0.12	0.01	0.106, 0.14	0.10	0.01	0.086, 0.12
	1953	0.12	0.01	0.107, 0.14	0.10	0.01	0.088, 0.12
	1954	0.13	0.01	0.111, 0.14	0.11	0.01	0.091, 0.12
	1955	0.12	0.01	0.105, 0.14	0.10	0.01	0.085, 0.12
	1956	0.12	0.01	0.106, 0.14	0.10	0.01	0.085, 0.12
	1957	0.12	0.01	0.101, 0.13	0.10	0.01	0.081, 0.11
	1958	0.09	0.01	0.077, 0.11	0.07	0.01	0.059, 0.09
	1959	0.09	0.01	0.070, 0.10	0.07	0.01	0.050, 0.08
	1961	0.04	0.01	0.021, 0.05	0.03	0.01	0.009, 0.04
	1962	0.04	0.01	0.022, 0.05	0.03	0.01	0.012, 0.04
	1963	0.02	0.01	0.009, 0.04	0.02	0.01	0.003, 0.03
	1964	0.03	0.01	0.010, 0.04	0.02	0.01	0.008, 0.04
	1965 (ref)	0.00			0.00		
	1966	-0.03	0.01	-0.049, -0.02	-0.03	0.01	-0.045, -0.02
	1967	-0.05	0.01	-0.061, -0.03	-0.04	0.01	-0.055, -0.03
Education	Primary (<9 years)				-0.03	0.01	-0.058, -0.01
	Primary (9 years)				0.00	0.00	-0.014, 0.01
	Secondary (10-11 years) (ref)				0.00		
	Secondary (12 years)				-0.08	0.00	-0.093, -0.07
	Tertiary (13-15 years)				-0.05	0.00	-0.061, -0.04
	Tertiary (15+ years)				-0.02	0.00	-0.030, -0.01
	Post-graduate				0.05	0.01	0.022, 0.07
	Missing				-0.33	0.06	-0.443, -0.22
Family Size	1				-0.11	0.00	-0.118, -0.10
	2 (ref)				0.00		
	3				0.11	0.00	0.105, 0.12
	4				0.21	0.01	0.194, 0.22
	5				0.29	0.01	0.271, 0.31
	6				0.38	0.01	0.347, 0.40
Birth Order	1 (ref)				0.00		
	2				-0.03	0.00	-0.034, -0.02
	3				-0.07	0.01	-0.078, -0.06
	4				-0.12	0.01	-0.134, -0.10
	5				-0.18	0.01	-0.209, -0.15
	6				-0.15	0.02	-0.185, -0.11
N			712,265			712,265	

TABLE S10. Linear regression on number of children, fixed effects. Swedish men born 1951-1967.

Variable	Category	Model 1			Model 2		
		β	SE	95% CI	β	SE	95% CI
IQ (stanine scale)		0.08	0.00	0.069, 0.081	0.07	0.00	0.067, 0.080
Birth Year	1951	0.28	0.03	0.224, 0.333	0.29	0.04	0.211, 0.377
	1952	0.29	0.03	0.233, 0.339	0.30	0.04	0.220, 0.376
	1953	0.31	0.03	0.257, 0.360	0.32	0.04	0.247, 0.393
	1954	0.27	0.03	0.224, 0.324	0.29	0.04	0.217, 0.355
	1955	0.29	0.02	0.237, 0.335	0.30	0.03	0.231, 0.360
	1956	0.25	0.02	0.206, 0.301	0.26	0.03	0.201, 0.323
	1957	0.27	0.02	0.219, 0.313	0.27	0.03	0.217, 0.332
	1958	0.23	0.02	0.180, 0.272	0.23	0.03	0.178, 0.288
	1959	0.19	0.02	0.143, 0.235	0.20	0.03	0.143, 0.248
	1961	0.11	0.02	0.060, 0.151	0.11	0.02	0.061, 0.159
	1962	0.12	0.02	0.079, 0.165	0.13	0.02	0.080, 0.172
	1963	0.07	0.02	0.031, 0.118	0.08	0.02	0.032, 0.121
	1964	0.08	0.02	0.039, 0.130	0.09	0.02	0.040, 0.131
	1965 (ref)	0.00			0.00		
	1966	-0.05	0.02	-0.096, 0.000	-0.05	0.02	-0.098, -0.001
	1967	-0.07	0.02	-0.115, -0.021	-0.07	0.02	-0.120, -0.023
Education	Primary (<9 years)				-0.01	0.04	-0.087, 0.061
	Primary (9 years)				-0.03	0.01	-0.058, -0.004
	Secondary (10-11 years) (ref)				0.00		
	Secondary (12 years)				-0.06	0.02	-0.088, -0.028
	Tertiary (13-15 years)				-0.04	0.01	-0.073, -0.015
	Tertiary (15+ years)				0.04	0.02	0.005, 0.071
	Post-graduate				0.18	0.04	0.103, 0.264
	Missing				-0.45	0.14	-0.720, -0.171
Birth Order					0.00	0.01	-0.015, 0.022
N			195,499			195,499	

TABLE S11. Linear regression on number of children, no fixed effects. Swedish men born 1951-1967.

		Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI
IQ	Below 74	-0.44	0.01	-0.464, -0.423	-0.47	0.01	-0.487, -0.445
	74 to 81	-0.17	0.01	-0.187, -0.160	-0.19	0.01	-0.203, -0.175
	81 to 89	-0.07	0.01	-0.084, -0.061	-0.08	0.01	-0.094, -0.072
	89 to 96	-0.04	0.00	-0.045, -0.026	-0.04	0.00	-0.049, -0.030
	96 to 104 (ref)	0.00			0.00		
	104 to 111	0.01	0.00	-0.004, 0.014	0.01	0.00	-0.002, 0.016
	111 to 119	0.01	0.01	0.001, 0.021	0.01	0.01	0.002, 0.022
	119 to 126	0.02	0.01	0.012, 0.035	0.02	0.01	0.006, 0.030
	Above 126	0.02	0.01	0.003, 0.034	0.00	0.01	-0.016, 0.016
	Not Tested	-0.88	0.01	-0.903, -0.859	-0.83	0.01	-0.854, -0.810
	Missing	-0.21	0.01	-0.231, -0.193	-0.20	0.01	-0.223, -0.186
Birth Year	1951	0.15	0.01	0.132, 0.164	0.14	0.01	0.120, 0.152
	1952	0.15	0.01	0.131, 0.162	0.13	0.01	0.115, 0.147
	1953	0.14	0.01	0.127, 0.159	0.13	0.01	0.110, 0.142
	1954	0.14	0.01	0.127, 0.159	0.12	0.01	0.109, 0.141
	1955	0.14	0.01	0.121, 0.153	0.12	0.01	0.104, 0.135
	1956	0.13	0.01	0.119, 0.151	0.12	0.01	0.101, 0.132
	1957	0.13	0.01	0.115, 0.146	0.11	0.01	0.097, 0.128
	1958	0.11	0.01	0.092, 0.123	0.09	0.01	0.075, 0.106
	1959	0.09	0.01	0.079, 0.111	0.08	0.01	0.061, 0.093
	1961	0.07	0.01	0.056, 0.087	0.06	0.01	0.043, 0.074
	1962	0.04	0.01	0.027, 0.058	0.03	0.01	0.016, 0.047
	1963	0.03	0.01	0.016, 0.046	0.02	0.01	0.009, 0.039
	1964	0.04	0.01	0.022, 0.051	0.03	0.01	0.020, 0.049
	1965 (ref)	0.00			0.00		
	1966	-0.03	0.01	-0.048, -0.019	-0.03	0.01	-0.044, -0.015
	1967	-0.04	0.01	-0.056, -0.027	-0.04	0.01	-0.052, -0.023
Education	Primary (<9 years)				-0.10	0.01	-0.120, -0.071
	Primary (9 years)				-0.02	0.00	-0.031, -0.013
	Secondary (10-11 years) (ref)				0.00		
	Secondary (12 years)				-0.07	0.00	-0.081, -0.063
	Tertiary (13-15 years)				-0.02	0.00	-0.032, -0.014
	Tertiary (15+ years)				0.02	0.00	0.013, 0.031
	Post-graduate				0.12	0.01	0.100, 0.149
	Missing				-0.86	0.03	-0.907, -0.809
Family Size	1				-0.11	0.00	-0.118, -0.100
	2 (ref)				0.00		
	3				0.11	0.00	0.107, 0.123
	4				0.21	0.01	0.197, 0.221
	5				0.30	0.01	0.276, 0.315
	6				0.39	0.01	0.365, 0.420
Birth Order	1 (ref)				0.00		
	2				-0.03	0.00	-0.035, -0.021
	3				-0.07	0.01	-0.080, -0.060
	4				-0.12	0.01	-0.138, -0.104
	5				-0.18	0.01	-0.211, -0.156
	6				-0.16	0.02	-0.198, -0.123
N			749,939			749,939	

TABLE S12. Linear regression on number of children, fixed effects. Swedish men born 1951-1967.

Variable	Category	Model 1			Model 2		
		β	SE	95% CI	β	SE	95% CI
IQ	Below 74	-0.58	0.03	-0.641, -0.527	-0.56	0.03	-0.622, -0.507
	74 to 81	-0.30	0.02	-0.334, -0.256	-0.28	0.02	-0.321, -0.242
	81 to 89	-0.13	0.02	-0.159, -0.095	-0.12	0.02	-0.151, -0.086
	89 to 96	-0.06	0.01	-0.090, -0.034	-0.06	0.01	-0.085, -0.029
	96 to 104 (ref)	0.00			0.00		
	104 to 111	0.03	0.01	0.002, 0.056	0.02	0.01	-0.005, 0.049
	111 to 119	0.08	0.02	0.045, 0.107	0.06	0.02	0.028, 0.091
	119 to 126	0.12	0.02	0.083, 0.159	0.09	0.02	0.054, 0.132
	Above 126	0.14	0.03	0.089, 0.190	0.09	0.03	0.042, 0.146
	Not Tested	-1.04	0.03	-1.106, -0.982	-0.98	0.03	-1.042, -0.916
	Missing	-0.26	0.03	-0.321, -0.206	-0.26	0.03	-0.313, -0.198
Birth Year	1951	0.32	0.03	0.265, 0.370	0.33	0.04	0.254, 0.413
	1952	0.32	0.03	0.265, 0.367	0.33	0.04	0.253, 0.403
	1953	0.33	0.03	0.281, 0.380	0.34	0.04	0.269, 0.409
	1954	0.30	0.02	0.248, 0.344	0.31	0.03	0.241, 0.373
	1955	0.31	0.02	0.261, 0.355	0.32	0.03	0.254, 0.378
	1956	0.28	0.02	0.232, 0.324	0.28	0.03	0.225, 0.343
	1957	0.28	0.02	0.236, 0.326	0.29	0.03	0.232, 0.343
	1958	0.24	0.02	0.196, 0.284	0.25	0.03	0.193, 0.298
	1959	0.20	0.02	0.152, 0.240	0.20	0.03	0.150, 0.252
	1961	0.16	0.02	0.115, 0.200	0.16	0.02	0.112, 0.204
	1962	0.12	0.02	0.080, 0.164	0.12	0.02	0.079, 0.167
	1963	0.08	0.02	0.043, 0.126	0.08	0.02	0.042, 0.127
	1964	0.09	0.02	0.049, 0.136	0.09	0.02	0.048, 0.136
	1965 (ref)	0.00			0.00	0.00	
	1966	-0.04	0.02	-0.086, 0.006	-0.04	0.02	-0.089, 0.004
	1967	-0.07	0.02	-0.112, -0.022	-0.07	0.02	-0.116, -0.024
Education	Primary (<9 years)				-0.12	0.03	-0.192, -0.057
	Primary (9 years)				-0.06	0.01	-0.087, -0.035
	Secondary (10-11 years) (ref)				0.00		
	Secondary (12 years)				-0.03	0.01	-0.061, -0.003
	Tertiary (13-15 years)				0.00	0.01	-0.031, 0.025
	Tertiary (15+ years)				0.09	0.02	0.063, 0.126
	Post-graduate				0.28	0.04	0.200, 0.354
	Missing				-0.92	0.08	-1.072, -0.770
Birth Order					0.00	0.01	-0.017, 0.019
N		205,685			205,685		

TABLE S13. Linear regression on parity progression, no fixed effects. Swedish men born 1951-1967.

		Childless						1 → 2						2 → 3					
		Model 1			Model 2			Model 1			Model 2			Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI
IQ	Below 74	0.20	0.00	0.192, 0.205	0.19	0.00	0.186, 0.200	-0.08	0.00	-0.086, -0.070	-0.08	0.00	-0.085, -0.069	0.06	0.01	0.046, 0.067	0.03	0.01	0.019, 0.040
	74 to 81	0.08	0.00	0.079, 0.088	0.08	0.00	0.076, 0.085	-0.04	0.00	-0.047, -0.037	-0.04	0.00	-0.045, -0.035	0.04	0.00	0.035, 0.048	0.02	0.00	0.016, 0.029
	81 to 89	0.03	0.00	0.030, 0.037	0.03	0.00	0.028, 0.035	-0.03	0.00	-0.030, -0.023	-0.02	0.00	-0.028, -0.020	0.02	0.00	0.014, 0.025	0.01	0.00	0.002, 0.013
	89 to 96	0.01	0.00	0.012, 0.018	0.01	0.00	0.010, 0.016	-0.01	0.00	-0.016, -0.009	-0.01	0.00	-0.014, -0.008	0.01	0.00	0.004, 0.014	0.00	0.00	-0.002, 0.007
	96 to 104 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	104 to 111	0.00	0.00	-0.005, 0.001	0.00	0.00	-0.003, 0.002	0.01	0.00	0.007, 0.013	0.01	0.00	0.004, 0.010	-0.01	0.00	-0.010, -0.002	0.00	0.00	-0.004, 0.004
	111 to 119	0.00	0.00	-0.004, 0.003	0.00	0.00	0.000, 0.006	0.02	0.00	0.017, 0.024	0.01	0.00	0.010, 0.016	0.00	0.00	-0.007, 0.003	0.01	0.00	0.003, 0.013
	119 to 126	0.00	0.00	-0.002, 0.006	0.01	0.00	0.004, 0.012	0.03	0.00	0.023, 0.031	0.02	0.00	0.011, 0.019	0.01	0.00	0.004, 0.015	0.02	0.00	0.015, 0.027
	Above 126	0.01	0.00	0.006, 0.016	0.02	0.00	0.015, 0.025	0.03	0.00	0.028, 0.038	0.02	0.00	0.011, 0.021	0.02	0.00	0.013, 0.027	0.03	0.00	0.021, 0.036
	Not Tested	0.37	0.00	0.365, 0.381	0.35	0.00	0.340, 0.356	-0.07	0.01	-0.080, -0.060	-0.07	0.01	-0.081, -0.060	0.02	0.01	0.006, 0.034	0.02	0.01	0.003, 0.031
	Missing	0.10	0.00	0.096, 0.109	0.10	0.00	0.090, 0.103	-0.01	0.00	-0.018, -0.005	-0.01	0.00	-0.021, -0.007	0.02	0.00	0.012, 0.031	0.02	0.00	0.012, 0.030
Birth Year	1951	-0.02	0.00	-0.029, -0.019	-0.03	0.00	-0.033, -0.023	0.01	0.00	0.001, 0.011	0.00	0.00	-0.001, 0.010	0.07	0.00	0.067, 0.082	0.06	0.00	0.053, 0.069
	1952	-0.02	0.00	-0.029, -0.019	-0.03	0.00	-0.031, -0.021	0.00	0.00	-0.001, 0.010	0.00	0.00	-0.003, 0.008	0.08	0.00	0.072, 0.087	0.07	0.00	0.058, 0.074
	1953	-0.02	0.00	-0.027, -0.016	-0.02	0.00	-0.028, -0.018	0.01	0.00	0.006, 0.017	0.01	0.00	0.004, 0.014	0.07	0.00	0.063, 0.078	0.06	0.00	0.051, 0.066
	1954	-0.02	0.00	-0.026, -0.015	-0.02	0.00	-0.026, -0.016	0.01	0.00	0.005, 0.016	0.01	0.00	0.003, 0.014	0.08	0.00	0.072, 0.087	0.07	0.00	0.059, 0.075
	1955	-0.02	0.00	-0.021, -0.011	-0.02	0.00	-0.022, -0.011	0.01	0.00	0.004, 0.015	0.01	0.00	0.002, 0.012	0.09	0.00	0.077, 0.093	0.07	0.00	0.066, 0.081
	1956	-0.01	0.00	-0.019, -0.009	-0.01	0.00	-0.019, -0.009	0.02	0.00	0.010, 0.021	0.01	0.00	0.008, 0.019	0.08	0.00	0.072, 0.087	0.07	0.00	0.061, 0.076
	1957	-0.01	0.00	-0.018, -0.007	-0.01	0.00	-0.017, -0.007	0.02	0.00	0.013, 0.024	0.02	0.00	0.011, 0.022	0.07	0.00	0.066, 0.082	0.06	0.00	0.056, 0.071
	1958	-0.01	0.00	-0.016, -0.006	-0.01	0.00	-0.016, -0.005	0.02	0.00	0.012, 0.022	0.01	0.00	0.010, 0.020	0.06	0.00	0.054, 0.069	0.05	0.00	0.044, 0.059
	1959	-0.01	0.00	-0.015, -0.005	-0.01	0.00	-0.014, -0.004	0.01	0.00	0.006, 0.017	0.01	0.00	0.003, 0.014	0.06	0.00	0.050, 0.066	0.05	0.00	0.040, 0.056
	1961	-0.01	0.00	-0.015, -0.005	-0.01	0.00	-0.013, -0.003	0.01	0.00	0.002, 0.013	0.01	0.00	0.000, 0.011	0.04	0.00	0.029, 0.044	0.03	0.00	0.022, 0.038
	1962	0.00	0.00	-0.006, 0.004	0.00	0.00	-0.005, 0.005	0.01	0.00	0.000, 0.011	0.00	0.00	-0.002, 0.009	0.03	0.00	0.026, 0.041	0.03	0.00	0.021, 0.036
	1963	0.00	0.00	-0.008, 0.002	0.00	0.00	-0.007, 0.003	0.01	0.00	0.001, 0.012	0.01	0.00	0.000, 0.011	0.02	0.00	0.011, 0.026	0.02	0.00	0.008, 0.023
	1964	-0.01	0.00	-0.014, -0.004	-0.01	0.00	-0.014, -0.004	0.00	0.00	-0.003, 0.007	0.00	0.00	-0.003, 0.007	0.01	0.00	0.006, 0.020	0.01	0.00	0.004, 0.019
	1965 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	1966	0.00	0.00	-0.003, 0.007	0.00	0.00	-0.003, 0.007	-0.01	0.00	-0.016, -0.005	-0.01	0.00	-0.015, -0.005	-0.01	0.00	-0.021, -0.007	-0.01	0.00	-0.020, -0.005
	1967	0.00	0.00	-0.001, 0.008	0.00	0.00	-0.001, 0.008	-0.01	0.00	-0.014, -0.004	-0.01	0.00	-0.014, -0.003	-0.02	0.00	-0.024, -0.010	-0.01	0.00	-0.021, -0.007
Education	Primary (<9 years)				0.05	0.00	0.044, 0.059				0.00	0.00	-0.010, 0.006				0.02	0.01	0.010, 0.033
	Primary (9 years)				0.02	0.00	0.016, 0.021				0.00	0.00	-0.004, 0.002				0.01	0.00	0.010, 0.019
	Secondary (10-11 years) (ref)				0.00						0.00						0.00		
	Secondary (12 years)				0.02	0.00	0.015, 0.021				0.00	0.00	-0.003, 0.003				-0.02	0.00	-0.027, -0.018
	Tertiary (13-15 years)				0.00	0.00	-0.007, -0.002				0.02	0.00	0.012, 0.018				-0.03	0.00	-0.039, -0.030
	Tertiary (15+ years)				-0.01	0.00	-0.008, -0.002				0.03	0.00	0.028, 0.034				-0.01	0.00	-0.012, -0.003
	Post-graduate				-0.03	0.00	-0.036, -0.020				0.04	0.00	0.031, 0.046				0.03	0.01	0.017, 0.041
	Missing				0.37	0.01	0.353, 0.389				-0.08	0.02	-0.122, -0.041				0.03	0.03	-0.022, 0.085
Family Size	1				0.04	0.00	0.032, 0.038				-0.03	0.00	-0.032, -0.025				0.00	0.00	-0.009, 0.000
	2 (ref)				0.00						0.00						0.00		
	3				-0.02	0.00	-0.023, -0.018				0.02	0.00	0.014, 0.019				0.05	0.00	0.042, 0.049
	4				-0.03	0.00	-0.033, -0.025				0.03	0.00	0.022, 0.030				0.09	0.00	0.086, 0.097
	5				-0.04	0.00	-0.044, -0.033				0.04	0.00	0.032, 0.043				0.12	0.00	0.110, 0.127
	6				-0.04	0.00	-0.051, -0.036				0.05	0.00	0.038, 0.052				0.15	0.01	0.140, 0.161
Birth Order	1 (ref)				0.00						0.00						0.00		
	2				0.01	0.00	0.003, 0.008				0.00	0.00	-0.004, 0.001				-0.01	0.00	-0.012, -0.006
	3				0.02	0.00	0.013, 0.020				0.00	0.00	-0.007, 0.000				-0.02	0.00	-0.025, -0.015
	4				0.02	0.00	0.015, 0.026				-0.01	0.00	-0.015, -0.005				-0.04	0.00	-0.047, -0.031
	5				0.03	0.00	0.020, 0.036				-0.02	0.00	-0.031, -0.015				-0.05	0.01	-0.059, -0.035
	6				0.02	0.01	0.015, 0.035				-0.01	0.01	-0.020, 0.000				-0.04	0.01	-0.059, -0.028
N			749,939			749,939			590,655			590,655			488,100			488,100	

TABLE S14. Linear regression on parity progression, no fixed effects. Swedish men born 1951-1967.

		$3 \rightarrow 4$						$4 \rightarrow 5$						$5 \rightarrow 6+$					
		Model 1			Model 2			Model 1			Model 2			Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI
IQ	Below 74	0.11	0.01	0.094, 0.124	0.08	0.01	0.069, 0.099	0.10	0.01	0.079, 0.127	0.08	0.01	0.057, 0.106	0.12	0.02	0.080, 0.164	0.10	0.02	0.059, 0.144
	74 to 81	0.06	0.00	0.052, 0.071	0.04	0.00	0.032, 0.051	0.06	0.01	0.040, 0.073	0.04	0.01	0.023, 0.056	0.07	0.02	0.039, 0.100	0.05	0.02	0.024, 0.086
	81 to 89	0.03	0.00	0.027, 0.042	0.02	0.00	0.013, 0.028	0.04	0.01	0.025, 0.054	0.03	0.01	0.013, 0.042	0.03	0.01	0.001, 0.055	0.02	0.01	-0.008, 0.046
	89 to 96	0.01	0.00	0.006, 0.019	0.00	0.00	-0.003, 0.011	0.01	0.01	-0.005, 0.020	0.00	0.01	-0.013, 0.012	0.02	0.01	-0.009, 0.041	0.01	0.01	-0.015, 0.035
	96 to 104 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	104 to 111	-0.02	0.00	-0.022, -0.009	-0.01	0.00	-0.012, 0.000	-0.01	0.01	-0.022, 0.002	0.00	0.01	-0.014, 0.010	-0.01	0.01	-0.037, 0.012	-0.01	0.01	-0.031, 0.018
	111 to 119	-0.03	0.00	-0.039, -0.025	-0.01	0.00	-0.020, -0.006	-0.02	0.01	-0.035, -0.008	-0.01	0.01	-0.019, 0.008	-0.01	0.01	-0.033, 0.023	0.00	0.01	-0.025, 0.032
	119 to 126	-0.03	0.00	-0.038, -0.022	0.00	0.00	-0.012, 0.005	-0.03	0.01	-0.047, -0.016	-0.01	0.01	-0.022, 0.011	0.00	0.02	-0.038, 0.029	0.01	0.02	-0.020, 0.049
	Above 126	-0.04	0.01	-0.047, -0.027	-0.01	0.01	-0.016, 0.005	-0.02	0.01	-0.043, -0.003	0.01	0.01	-0.012, 0.030	-0.02	0.02	-0.060, 0.024	0.00	0.02	-0.042, 0.047
	Not Tested	0.06	0.01	0.042, 0.082	0.06	0.01	0.039, 0.079	0.07	0.02	0.033, 0.099	0.06	0.02	0.028, 0.095	0.03	0.03	-0.029, 0.088	0.02	0.03	-0.036, 0.081
	Missing	0.02	0.01	0.007, 0.034	0.02	0.01	0.010, 0.037	0.02	0.01	-0.006, 0.044	0.02	0.01	-0.004, 0.045	0.02	0.03	-0.034, 0.065	0.01	0.03	-0.036, 0.063
Birth Year	1951	0.03	0.01	0.023, 0.045	0.02	0.01	0.014, 0.036	0.05	0.01	0.033, 0.075	0.05	0.01	0.027, 0.069	0.04	0.02	0.000, 0.083	0.03	0.02	-0.009, 0.074
	1952	0.03	0.01	0.024, 0.046	0.02	0.01	0.014, 0.036	0.03	0.01	0.011, 0.052	0.03	0.01	0.005, 0.046	0.03	0.02	-0.013, 0.070	0.02	0.02	-0.018, 0.065
	1953	0.04	0.01	0.027, 0.049	0.03	0.01	0.018, 0.040	0.03	0.01	0.006, 0.046	0.02	0.01	0.000, 0.040	0.04	0.02	0.003, 0.086	0.04	0.02	-0.006, 0.077
	1954	0.03	0.01	0.014, 0.036	0.02	0.01	0.005, 0.027	0.03	0.01	0.009, 0.050	0.02	0.01	0.002, 0.044	0.03	0.02	-0.013, 0.071	0.02	0.02	-0.022, 0.062
	1955	0.03	0.01	0.016, 0.038	0.02	0.01	0.008, 0.030	0.04	0.01	0.015, 0.056	0.03	0.01	0.010, 0.051	0.02	0.02	-0.023, 0.059	0.01	0.02	-0.029, 0.052
	1956	0.03	0.01	0.018, 0.039	0.02	0.01	0.009, 0.031	0.03	0.01	0.006, 0.047	0.02	0.01	0.000, 0.041	0.02	0.02	-0.019, 0.063	0.02	0.02	-0.024, 0.059
	1957	0.03	0.01	0.017, 0.039	0.02	0.01	0.010, 0.032	0.03	0.01	0.008, 0.049	0.02	0.01	0.002, 0.043	0.03	0.02	-0.015, 0.068	0.02	0.02	-0.021, 0.061
	1958	0.02	0.01	0.007, 0.029	0.01	0.01	0.000, 0.022	0.02	0.01	-0.001, 0.041	0.01	0.01	-0.007, 0.035	-0.01	0.02	-0.051, 0.032	-0.02	0.02	-0.058, 0.026
	1959	0.02	0.01	0.006, 0.029	0.01	0.01	-0.001, 0.022	0.03	0.01	0.004, 0.047	0.02	0.01	-0.001, 0.042	0.01	0.02	-0.029, 0.057	0.01	0.02	-0.035, 0.051
	1961	0.02	0.01	0.010, 0.032	0.02	0.01	0.005, 0.028	0.01	0.01	-0.009, 0.034	0.01	0.01	-0.011, 0.031	0.03	0.02	-0.010, 0.077	0.03	0.02	-0.014, 0.073
	1962	0.01	0.01	-0.006, 0.017	0.00	0.01	-0.008, 0.014	0.02	0.01	-0.001, 0.042	0.02	0.01	-0.003, 0.040	0.00	0.02	-0.038, 0.048	0.00	0.02	-0.041, 0.044
	1963	0.00	0.01	-0.010, 0.012	0.00	0.01	-0.011, 0.011	0.01	0.01	-0.007, 0.035	0.01	0.01	-0.008, 0.034	0.00	0.02	-0.045, 0.041	0.00	0.02	-0.046, 0.040
	1964	0.00	0.01	-0.008, 0.014	0.00	0.01	-0.008, 0.013	0.01	0.01	-0.011, 0.030	0.01	0.01	-0.011, 0.030	0.03	0.02	-0.012, 0.074	0.03	0.02	-0.011, 0.075
	1965 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	1966	-0.01	0.01	-0.025, -0.003	-0.01	0.01	-0.024, -0.002	0.00	0.01	-0.020, 0.023	0.00	0.01	-0.019, 0.024	0.02	0.02	-0.022, 0.067	0.03	0.02	-0.020, 0.070
	1967	-0.02	0.01	-0.035, -0.014	-0.02	0.01	-0.033, -0.011	-0.01	0.01	-0.030, 0.013	-0.01	0.01	-0.028, 0.015	0.00	0.02	-0.046, 0.045	0.00	0.02	-0.044, 0.046
Education	Primary (<9 years)				0.01	0.01	-0.008, 0.024				0.00	0.01	-0.028, 0.026				0.02	0.03	-0.032, 0.068
	Primary (9 years)				0.01	0.00	0.008, 0.020				0.02	0.01	0.005, 0.027				0.01	0.01	-0.011, 0.029
	Secondary (10-11 years) (ref)				0.00						0.00						0.00		
	Secondary (12 years)				-0.02	0.00	-0.029, -0.016				-0.02	0.01	-0.032, -0.006				-0.03	0.01	-0.051, 0.000
	Tertiary (13-15 years)				-0.05	0.00	-0.052, -0.040				-0.04	0.01	-0.053, -0.029				-0.01	0.01	-0.035, 0.018
	Tertiary (15+ years)				-0.05	0.00	-0.055, -0.043				-0.04	0.01	-0.057, -0.032				-0.04	0.01	-0.064, -0.011
	Post-graduate				-0.03	0.01	-0.044, -0.013				-0.04	0.02	-0.074, -0.015				-0.01	0.03	-0.077, 0.056
	Missing				0.06	0.04	-0.021, 0.131				0.03	0.06	-0.086, 0.155				0.00	0.11	-0.213, 0.221
Family Size	1				0.01	0.00	0.007, 0.021				0.02	0.01	0.009, 0.035				0.01	0.01	-0.020, 0.032
	2 (ref)				0.00						0.00						0.00		
	3				0.02	0.00	0.012, 0.022				0.02	0.01	0.005, 0.025				0.03	0.01	0.006, 0.047
	4				0.05	0.00	0.044, 0.059				0.02	0.01	0.011, 0.038				0.03	0.01	0.006, 0.057
	5				0.08	0.01	0.067, 0.089				0.06	0.01	0.043, 0.081				0.09	0.02	0.049, 0.122
	6				0.13	0.01	0.113, 0.141				0.10	0.01	0.080, 0.126				0.11	0.02	0.069, 0.152
Birth Order	1 (ref)				0.00						0.00						0.00		
	2				-0.01	0.00	-0.020, -0.010				-0.01	0.00	-0.017, 0.002				-0.01	0.01	-0.026, 0.012
	3				-0.02	0.00	-0.026, -0.012				-0.01	0.01	-0.026, 0.000				-0.01	0.01	-0.037, 0.013
	4				-0.04	0.01	-0.049, -0.028				-0.02	0.01	-0.041, -0.003				-0.02	0.02	-0.058, 0.015
	5				-0.06	0.01	-0.080, -0.047				-0.04	0.01	-0.072, -0.014				-0.05	0.03	-0.101, 0.007
	6				-0.06	0.01	-0.084, -0.043				-0.04	0.02	-0.072, -0.004				-0.01	0.03	-0.071, 0.049
N		198,280			198,280			54,470			54,470			14,373			14,373		

TABLE S15. Linear regression on parity progression, fixed effects. Swedish men born 1951-1967.

		Childless						$1 \rightarrow 2$						$2 \rightarrow 3$					
		Model 1			Model 2			Model 1			Model 2			Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI
IQ	Below 74	0.23	0.01	0.215, 0.251	0.22	0.01	0.205, 0.241	-0.06	0.01	-0.086, -0.039	-0.06	0.01	-0.084, -0.036	0.00	0.02	-0.036, 0.045	0.00	0.02	-0.041, 0.041
	74 to 81	0.11	0.01	0.099, 0.124	0.10	0.01	0.092, 0.117	-0.05	0.01	-0.064, -0.033	-0.05	0.01	-0.062, -0.030	0.03	0.01	0.005, 0.059	0.03	0.01	0.001, 0.056
	81 to 89	0.04	0.01	0.034, 0.054	0.04	0.01	0.029, 0.049	-0.03	0.01	-0.040, -0.014	-0.02	0.01	-0.037, -0.012	0.02	0.01	-0.007, 0.037	0.01	0.01	-0.010, 0.034
	89 to 96	0.02	0.00	0.013, 0.030	0.02	0.00	0.010, 0.027	-0.01	0.01	-0.017, 0.005	0.00	0.01	-0.016, 0.006	0.01	0.01	-0.014, 0.024	0.00	0.01	-0.016, 0.023
	96 to 104 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	104 to 111	-0.01	0.00	-0.021, -0.004	-0.01	0.00	-0.018, 0.000	0.01	0.01	-0.003, 0.018	0.01	0.01	-0.006, 0.016	0.00	0.01	-0.021, 0.017	0.00	0.01	-0.019, 0.019
	111 to 119	-0.02	0.00	-0.033, -0.013	-0.02	0.01	-0.025, -0.006	0.02	0.01	0.011, 0.035	0.02	0.01	0.006, 0.030	0.01	0.01	-0.016, 0.028	0.01	0.01	-0.013, 0.031
	119 to 126	-0.04	0.01	-0.050, -0.026	-0.03	0.01	-0.039, -0.014	0.02	0.01	0.010, 0.039	0.02	0.01	0.001, 0.031	0.02	0.01	-0.005, 0.049	0.02	0.01	-0.002, 0.052
	Above 126	-0.03	0.01	-0.049, -0.017	-0.02	0.01	-0.033, 0.000	0.03	0.01	0.015, 0.054	0.02	0.01	0.003, 0.042	0.05	0.02	0.010, 0.080	0.04	0.02	0.008, 0.080
	Not Tested	0.43	0.01	0.409, 0.452	0.40	0.01	0.379, 0.422	-0.05	0.02	-0.083, -0.018	-0.05	0.02	-0.084, -0.018	0.02	0.03	-0.033, 0.079	0.02	0.03	-0.034, 0.078
	Missing	0.12	0.01	0.099, 0.136	0.11	0.01	0.095, 0.132	-0.01	0.01	-0.038, 0.009	-0.02	0.01	-0.039, 0.008	0.02	0.02	-0.017, 0.065	0.02	0.02	-0.017, 0.065
Birth Year	1951	-0.07	0.01	-0.083, -0.050	-0.10	0.01	-0.122, -0.072	0.02	0.01	0.000, 0.041	0.03	0.02	0.001, 0.064	0.15	0.02	0.117, 0.189	0.10	0.03	0.041, 0.151
	1952	-0.07	0.01	-0.083, -0.051	-0.09	0.01	-0.117, -0.070	0.01	0.01	-0.012, 0.027	0.02	0.01	-0.010, 0.049	0.18	0.02	0.144, 0.214	0.13	0.03	0.074, 0.177
	1953	-0.06	0.01	-0.079, -0.048	-0.09	0.01	-0.109, -0.065	0.03	0.01	0.014, 0.053	0.04	0.01	0.017, 0.072	0.17	0.02	0.139, 0.207	0.13	0.02	0.078, 0.174
	1954	-0.06	0.01	-0.074, -0.044	-0.08	0.01	-0.103, -0.061	0.01	0.01	-0.005, 0.033	0.02	0.01	-0.001, 0.051	0.17	0.02	0.132, 0.199	0.12	0.02	0.076, 0.168
	1955	-0.06	0.01	-0.074, -0.044	-0.08	0.01	-0.097, -0.059	0.03	0.01	0.007, 0.044	0.04	0.01	0.011, 0.060	0.17	0.02	0.135, 0.200	0.13	0.02	0.086, 0.172
	1956	-0.05	0.01	-0.064, -0.035	-0.07	0.01	-0.085, -0.048	0.03	0.01	0.010, 0.046	0.04	0.01	0.014, 0.061	0.17	0.02	0.140, 0.204	0.14	0.02	0.096, 0.177
	1957	-0.05	0.01	-0.064, -0.035	-0.06	0.01	-0.082, -0.047	0.03	0.01	0.014, 0.050	0.04	0.01	0.018, 0.062	0.16	0.02	0.129, 0.193	0.13	0.02	0.091, 0.169
	1958	-0.05	0.01	-0.060, -0.032	-0.06	0.01	-0.076, -0.042	0.03	0.01	0.009, 0.044	0.03	0.01	0.013, 0.055	0.14	0.02	0.112, 0.174	0.12	0.02	0.079, 0.153
	1959	-0.04	0.01	-0.050, -0.022	-0.05	0.01	-0.064, -0.032	0.02	0.01	0.006, 0.041	0.03	0.01	0.010, 0.050	0.12	0.02	0.091, 0.153	0.10	0.02	0.063, 0.134
	1961	-0.03	0.01	-0.048, -0.020	-0.04	0.01	-0.056, -0.026	0.01	0.01	-0.009, 0.025	0.01	0.01	-0.006, 0.031	0.09	0.02	0.057, 0.118	0.07	0.02	0.038, 0.103
	1962	-0.02	0.01	-0.031, -0.004	-0.02	0.01	-0.037, -0.009	0.01	0.01	-0.003, 0.031	0.02	0.01	-0.001, 0.035	0.08	0.02	0.046, 0.107	0.06	0.02	0.031, 0.095
	1963	-0.02	0.01	-0.030, -0.003	-0.02	0.01	-0.034, -0.007	0.01	0.01	-0.007, 0.028	0.01	0.01	-0.005, 0.030	0.06	0.02	0.034, 0.096	0.06	0.02	0.025, 0.087
	1964	-0.02	0.01	-0.035, -0.007	-0.02	0.01	-0.037, -0.008	0.01	0.01	-0.012, 0.024	0.01	0.01	-0.011, 0.025	0.05	0.02	0.022, 0.086	0.05	0.02	0.017, 0.081
	1965 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	1966	0.01	0.01	-0.004, 0.026	0.01	0.01	-0.001, 0.029	-0.02	0.01	-0.037, 0.001	-0.02	0.01	-0.039, 0.000	0.00	0.02	-0.035, 0.034	0.00	0.02	-0.031, 0.038
	1967	0.01	0.01	-0.005, 0.024	0.01	0.01	0.000, 0.030	-0.02	0.01	-0.038, -0.001	-0.02	0.01	-0.041, -0.003	-0.03	0.02	-0.061, 0.006	-0.02	0.02	-0.051, 0.017
Education	Primary (<9 years)				0.07	0.01	0.048, 0.088				0.02	0.01	-0.008, 0.044				0.03	0.02	-0.015, 0.074
	Primary (9 years)				0.03	0.00	0.020, 0.036				0.00	0.01	-0.014, 0.006				0.01	0.01	-0.008, 0.027
	Secondary (10-11 years) (ref)				0.00						0.00						0.00		
	Secondary (12 years)				0.01	0.00	-0.001, 0.018				0.01	0.01	-0.001, 0.022				-0.01	0.01	-0.027, 0.014
	Tertiary (13-15 years)				-0.01	0.00	-0.023, -0.005				0.02	0.01	0.008, 0.030				-0.05	0.01	-0.065, -0.025
	Tertiary (15+ years)				-0.04	0.01	-0.046, -0.026				0.03	0.01	0.016, 0.041				0.00	0.01	-0.018, 0.027
	Post-graduate				-0.07	0.01	-0.094, -0.045				0.08	0.01	0.047, 0.105				0.05	0.03	0.001, 0.108
	Missing				0.40	0.02	0.350, 0.443				0.02	0.06	-0.097, 0.131				0.02	0.10	-0.172, 0.206
Birth Order					-0.01	0.00	-0.012, -0.002				0.00	0.00	-0.002, 0.011				-0.02	0.01	-0.027, -0.004
N		205,685			205,685			163,246			163,246			131,953			131,953		

TABLE S16. Linear regression on parity progression, fixed effects. Swedish men born 1951-1967.

		$3 \rightarrow 4$						$4 \rightarrow 5$						$5 \rightarrow 6+$					
		Model 1			Model 2			Model 1			Model 2			Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI
IQ	Below 74	-0.01	0.04	-0.099, 0.073	-0.01	0.04	-0.098, 0.075	0.07	0.11	-0.141, 0.290	0.07	0.11	-0.149, 0.287	0.47	0.25	-0.032, 0.964	0.39	0.28	-0.152, 0.939
	74 to 81	0.01	0.03	-0.051, 0.061	0.01	0.03	-0.051, 0.062	0.06	0.07	-0.085, 0.204	0.06	0.07	-0.087, 0.203	0.22	0.22	-0.217, 0.663	0.29	0.20	-0.113, 0.686
	81 to 89	-0.01	0.02	-0.053, 0.041	-0.01	0.02	-0.053, 0.042	-0.04	0.06	-0.167, 0.083	-0.05	0.06	-0.173, 0.079	0.40	0.22	-0.037, 0.837	0.41	0.21	-0.002, 0.822
	89 to 96	0.01	0.02	-0.028, 0.057	0.01	0.02	-0.029, 0.056	0.02	0.06	-0.095, 0.133	0.01	0.06	-0.100, 0.128	0.13	0.17	-0.215, 0.467	0.14	0.17	-0.191, 0.479
	96 to 104 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	104 to 111	-0.01	0.02	-0.048, 0.036	0.00	0.02	-0.047, 0.037	0.00	0.06	-0.114, 0.113	0.00	0.06	-0.113, 0.115	0.18	0.18	-0.164, 0.523	0.24	0.16	-0.080, 0.564
	111 to 119	-0.01	0.02	-0.053, 0.042	0.00	0.02	-0.050, 0.046	-0.01	0.07	-0.147, 0.133	0.00	0.07	-0.141, 0.141	0.21	0.23	-0.237, 0.663	0.11	0.23	-0.339, 0.552
	119 to 126	0.00	0.03	-0.062, 0.056	0.00	0.03	-0.057, 0.062	-0.02	0.09	-0.195, 0.161	-0.02	0.09	-0.197, 0.160	0.54	0.30	-0.052, 1.127	0.61	0.26	0.103, 1.121
	Above 126	-0.05	0.04	-0.128, 0.023	-0.04	0.04	-0.121, 0.033	-0.04	0.13	-0.295, 0.206	-0.05	0.13	-0.301, 0.205	-0.27	0.47	-1.202, 0.657	0.13	0.48	-0.811, 1.079
	Not Tested	-0.04	0.06	-0.158, 0.079	-0.04	0.06	-0.159, 0.078	0.01	0.14	-0.265, 0.281	0.00	0.14	-0.266, 0.273	-0.10	0.29	-0.679, 0.473	-0.35	0.33	-0.989, 0.299
	Missing	0.01	0.04	-0.075, 0.101	0.01	0.05	-0.074, 0.102	0.05	0.13	-0.213, 0.313	0.04	0.13	-0.223, 0.305	0.45	0.32	-0.180, 1.083	0.60	0.25	0.104, 1.101
Birth Year	1951	0.08	0.04	-0.002, 0.155	0.05	0.06	-0.074, 0.169	0.08	0.11	-0.131, 0.293	0.12	0.17	-0.216, 0.454	0.03	0.39	-0.721, 0.789	-0.41	0.55	-1.500, 0.674
	1952	0.08	0.04	0.001, 0.153	0.05	0.06	-0.062, 0.164	0.16	0.10	-0.043, 0.366	0.20	0.16	-0.117, 0.514	-0.06	0.41	-0.859, 0.733	-0.56	0.59	-1.711, 0.583
	1953	0.08	0.04	0.002, 0.150	0.05	0.05	-0.053, 0.159	-0.05	0.10	-0.252, 0.156	-0.02	0.15	-0.317, 0.280	0.00	0.39	-0.761, 0.764	-0.31	0.51	-1.305, 0.678
	1954	0.08	0.04	0.009, 0.156	0.06	0.05	-0.039, 0.164	0.01	0.10	-0.181, 0.207	0.04	0.15	-0.240, 0.330	-0.24	0.36	-0.942, 0.461	-0.66	0.50	-1.646, 0.318
	1955	0.06	0.04	-0.012, 0.132	0.04	0.05	-0.052, 0.137	0.05	0.10	-0.150, 0.243	0.07	0.14	-0.193, 0.336	0.15	0.39	-0.606, 0.915	-0.21	0.49	-1.167, 0.743
	1956	0.03	0.04	-0.035, 0.105	0.02	0.05	-0.072, 0.108	-0.04	0.10	-0.223, 0.153	-0.01	0.13	-0.257, 0.235	-0.41	0.41	-1.207, 0.392	-0.63	0.47	-1.554, 0.301
	1957	0.06	0.04	-0.014, 0.126	0.04	0.04	-0.043, 0.128	0.03	0.10	-0.156, 0.221	0.05	0.12	-0.192, 0.285	0.04	0.36	-0.674, 0.749	-0.19	0.46	-1.097, 0.708
	1958	0.04	0.04	-0.026, 0.112	0.03	0.04	-0.051, 0.113	-0.01	0.09	-0.192, 0.175	0.00	0.11	-0.221, 0.222	-0.16	0.35	-0.859, 0.530	-0.35	0.43	-1.183, 0.486
	1959	0.04	0.04	-0.026, 0.113	0.03	0.04	-0.046, 0.111	0.02	0.10	-0.179, 0.213	0.03	0.12	-0.194, 0.260	-0.26	0.36	-0.971, 0.444	-0.39	0.43	-1.231, 0.449
	1961	0.02	0.03	-0.050, 0.086	0.01	0.04	-0.062, 0.085	-0.06	0.10	-0.250, 0.129	-0.06	0.11	-0.264, 0.152	-0.13	0.34	-0.788, 0.536	-0.28	0.37	-1.007, 0.443
	1962	0.07	0.04	-0.001, 0.139	0.06	0.04	-0.009, 0.137	0.01	0.10	-0.190, 0.207	0.01	0.11	-0.197, 0.218	-0.38	0.37	-1.113, 0.343	-0.53	0.40	-1.321, 0.263
	1963	-0.01	0.04	-0.078, 0.063	-0.01	0.04	-0.081, 0.063	0.06	0.09	-0.129, 0.239	0.06	0.10	-0.132, 0.249	-0.12	0.30	-0.708, 0.467	-0.18	0.32	-0.805, 0.440
	1964	-0.03	0.04	-0.107, 0.040	-0.03	0.04	-0.108, 0.040	-0.04	0.10	-0.245, 0.163	-0.04	0.11	-0.246, 0.167	-0.09	0.35	-0.784, 0.597	-0.20	0.37	-0.929, 0.527
	1965 (ref)	0.00			0.00			0.00			0.00			0.00			0.00		
	1966	0.00	0.04	-0.079, 0.087	0.01	0.04	-0.075, 0.091	0.09	0.12	-0.155, 0.335	0.08	0.13	-0.163, 0.327	0.09	0.45	-0.778, 0.967	0.19	0.47	-0.732, 1.104
	1967	-0.07	0.04	-0.150, 0.008	-0.06	0.04	-0.145, 0.016	-0.09	0.12	-0.322, 0.143	-0.10	0.12	-0.333, 0.142	-0.50	0.32	-1.139, 0.131	-0.32	0.35	-0.998, 0.357
Education	Primary (<9 years)				-0.01	0.04	-0.096, 0.080				0.03	0.12	-0.210, 0.270				-0.24	0.32	-0.874, 0.399
	Primary (9 years)				-0.02	0.02	-0.058, 0.015				0.05	0.05	-0.044, 0.147				-0.26	0.14	-0.535, 0.024
	Secondary (10-11 years) (ref)				0.00						0.00						0.00		
	Secondary (12 years)				0.00	0.02	-0.051, 0.042				-0.02	0.07	-0.156, 0.112				0.23	0.23	-0.225, 0.682
	Tertiary (13-15 years)				-0.02	0.02	-0.066, 0.025				0.00	0.07	-0.138, 0.136				-0.47	0.28	-1.027, 0.082
	Tertiary (15+ years)				-0.04	0.03	-0.090, 0.012				-0.03	0.08	-0.182, 0.114				-0.42	0.25	-0.907, 0.058
	Post-graduate				0.00	0.06	-0.111, 0.115				0.13	0.18	-0.235, 0.489				-		
	Missing				-0.10	0.20	-0.500, 0.295				-1.04	0.14	-1.321, -0.756				-		
Birth Order					-0.01	0.01	-0.033, 0.016				0.01	0.03	-0.053, 0.076				-0.11	0.09	-0.292, 0.066
N		65,195			65,195			20,638			20,638			5,776			5,776		

TABLE S17. Linear regression on partner progression, no fixed effects. Swedish men born 1951-1967.

		1 → 2						2 → 3					
		Model 1			Model 2			Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI
IQ	Below 74	0.07	0.00	0.064, 0.078	0.06	0.00	0.049, 0.063	0.06	0.01	0.043, 0.072	0.05	0.01	0.033, 0.062
	74 to 81	0.05	0.00	0.046, 0.055	0.04	0.00	0.033, 0.042	0.05	0.00	0.037, 0.056	0.04	0.01	0.028, 0.047
	81 to 89	0.03	0.00	0.024, 0.030	0.02	0.00	0.014, 0.021	0.03	0.00	0.024, 0.041	0.03	0.00	0.018, 0.034
	89 to 96	0.01	0.00	0.010, 0.016	0.01	0.00	0.004, 0.010	0.01	0.00	0.007, 0.021	0.01	0.00	0.003, 0.017
	96 to 104 (ref)	0.00			0.00			0.00			0.00		
	104 to 111	-0.02	0.00	-0.022, -0.016	-0.01	0.00	-0.014, -0.009	-0.01	0.00	-0.016, -0.002	0.00	0.00	-0.010, 0.003
	111 to 119	-0.03	0.00	-0.033, -0.028	-0.02	0.00	-0.018, -0.013	-0.02	0.00	-0.026, -0.011	-0.01	0.00	-0.015, 0.001
	119 to 126	-0.04	0.00	-0.044, -0.037	-0.02	0.00	-0.022, -0.016	-0.04	0.00	-0.045, -0.028	-0.02	0.00	-0.028, -0.010
	Above 126	-0.05	0.00	-0.058, -0.050	-0.03	0.00	-0.031, -0.023	-0.04	0.01	-0.054, -0.031	-0.02	0.01	-0.031, -0.008
	Not Tested	0.04	0.00	0.027, 0.044	0.03	0.00	0.026, 0.043	0.08	0.01	0.056, 0.101	0.08	0.01	0.054, 0.098
	Missing	0.02	0.00	0.016, 0.028	0.02	0.00	0.019, 0.031	0.02	0.01	0.005, 0.032	0.02	0.01	0.006, 0.033
Birth Year	1951	0.01	0.00	0.003, 0.013	0.00	0.00	0.000, 0.009	0.03	0.01	0.015, 0.039	0.03	0.01	0.014, 0.038
	1952	0.01	0.00	0.003, 0.013	0.00	0.00	-0.001, 0.009	0.02	0.01	0.009, 0.032	0.02	0.01	0.008, 0.031
	1953	0.00	0.00	-0.001, 0.009	0.00	0.00	-0.004, 0.005	0.02	0.01	0.012, 0.036	0.02	0.01	0.011, 0.035
	1954	0.00	0.00	-0.004, 0.005	0.00	0.00	-0.008, 0.001	0.02	0.01	0.010, 0.034	0.02	0.01	0.009, 0.033
	1955	0.00	0.00	-0.002, 0.008	0.00	0.00	-0.005, 0.004	0.02	0.01	0.004, 0.027	0.01	0.01	0.003, 0.026
	1956	0.00	0.00	-0.003, 0.006	0.00	0.00	-0.007, 0.002	0.01	0.01	0.001, 0.024	0.01	0.01	0.000, 0.023
	1957	0.00	0.00	-0.007, 0.002	-0.01	0.00	-0.011, -0.001	0.02	0.01	0.005, 0.029	0.02	0.01	0.004, 0.028
	1958	0.00	0.00	-0.009, 0.000	-0.01	0.00	-0.012, -0.003	0.02	0.01	0.004, 0.028	0.01	0.01	0.003, 0.027
	1959	-0.01	0.00	-0.013, -0.003	-0.01	0.00	-0.016, -0.006	0.01	0.01	-0.005, 0.020	0.01	0.01	-0.006, 0.019
	1961	0.00	0.00	-0.009, 0.000	-0.01	0.00	-0.011, -0.002	0.01	0.01	-0.003, 0.021	0.01	0.01	-0.003, 0.021
	1962	0.00	0.00	-0.005, 0.004	0.00	0.00	-0.006, 0.003	0.01	0.01	-0.001, 0.022	0.01	0.01	-0.001, 0.022
	1963	0.00	0.00	-0.005, 0.004	0.00	0.00	-0.006, 0.003	0.01	0.01	0.002, 0.025	0.01	0.01	0.002, 0.025
	1964	0.00	0.00	-0.005, 0.004	0.00	0.00	-0.006, 0.003	0.00	0.01	-0.009, 0.012	0.00	0.01	-0.009, 0.013
	1965 (ref)	0.00			0.00			0.00			0.00		
	1966	-0.01	0.00	-0.012, -0.003	-0.01	0.00	-0.011, -0.002	0.00	0.01	-0.013, 0.009	0.00	0.01	-0.012, 0.009
	1967	-0.01	0.00	-0.013, -0.004	-0.01	0.00	-0.012, -0.003	-0.01	0.01	-0.016, 0.006	0.00	0.01	-0.016, 0.006
Education	Primary (<9 years)				-0.01	0.00	-0.014, 0.001				0.00	0.01	-0.019, 0.017
	Primary (9 years)				0.02	0.00	0.012, 0.018				0.00	0.00	-0.004, 0.008
	Secondary (10-11 years) (ref)				0.00						0.00		
	Secondary (12 years)				-0.02	0.00	-0.022, -0.017				-0.02	0.00	-0.030, -0.016
	Tertiary (13-15 years)				-0.04	0.00	-0.040, -0.035				-0.04	0.00	-0.043, -0.030
	Tertiary (15+ years)				-0.05	0.00	-0.048, -0.043				-0.04	0.00	-0.047, -0.033
	Post-graduate				-0.05	0.00	-0.052, -0.040				-0.05	0.01	-0.063, -0.028
	Missing				0.04	0.02	0.002, 0.075				0.00	0.04	-0.066, 0.074
Family Size	1				0.02	0.00	0.014, 0.020				0.01	0.00	0.008, 0.022
	2 (ref)				0.00						0.00		
	3				0.01	0.00	0.006, 0.011				0.01	0.00	0.002, 0.014
	4				0.02	0.00	0.019, 0.026				0.01	0.00	0.007, 0.023
	5				0.03	0.00	0.026, 0.037				0.03	0.01	0.017, 0.042
	6				0.05	0.00	0.038, 0.052				0.03	0.01	0.016, 0.047
Birth Order	1 (ref)				0.00						0.00		
	2				-0.01	0.00	-0.014, -0.010				-0.01	0.00	-0.015, -0.005
	3				-0.02	0.00	-0.023, -0.017				-0.02	0.00	-0.027, -0.011
	4				-0.03	0.00	-0.036, -0.026				-0.02	0.01	-0.037, -0.012
	5				-0.04	0.00	-0.048, -0.032				-0.03	0.01	-0.051, -0.013
	6				-0.05	0.01	-0.060, -0.040				-0.02	0.01	-0.048, 0.000
N			590,655			590,655			74,594			74,594	

TABLE S18. Linear regression on partner progression, fixed effects. Swedish men born 1951-1967.

		1 → 2						2 → 3					
		Model 1			Model 2			Model 1			Model 2		
Variable	Category	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI	β	SE	95% CI
IQ	Below 74	0.04	0.01	0.015, 0.057	0.03	0.01	0.012, 0.055	-0.02	0.05	-0.107, 0.070	-0.02	0.05	-0.113, 0.064
	74 to 81	0.02	0.01	0.007, 0.034	0.02	0.01	0.004, 0.032	0.02	0.03	-0.037, 0.087	0.02	0.03	-0.044, 0.082
	81 to 89	0.01	0.01	0.000, 0.021	0.01	0.01	-0.002, 0.019	0.04	0.03	-0.016, 0.100	0.04	0.03	-0.020, 0.097
	89 to 96	0.01	0.00	0.001, 0.019	0.01	0.00	-0.001, 0.018	0.01	0.03	-0.045, 0.056	0.00	0.03	-0.047, 0.055
	96 to 104 (ref)	0.00			0.00			0.00			0.00		
	104 to 111	-0.01	0.00	-0.020, -0.003	-0.01	0.00	-0.018, 0.000	0.03	0.03	-0.026, 0.089	0.04	0.03	-0.021, 0.094
	111 to 119	-0.01	0.00	-0.020, -0.001	-0.01	0.00	-0.015, 0.004	-0.06	0.04	-0.129, 0.010	-0.05	0.04	-0.120, 0.018
	119 to 126	-0.02	0.01	-0.028, -0.006	-0.01	0.01	-0.021, 0.002	-0.01	0.04	-0.094, 0.067	-0.01	0.04	-0.085, 0.075
	Above 126	-0.02	0.01	-0.034, -0.004	-0.01	0.01	-0.026, 0.005	-0.04	0.06	-0.147, 0.074	-0.02	0.06	-0.136, 0.094
	Not Tested	0.01	0.01	-0.019, 0.036	0.01	0.01	-0.019, 0.036	0.13	0.08	-0.018, 0.281	0.13	0.08	-0.017, 0.283
	Missing	0.01	0.01	-0.013, 0.027	0.01	0.01	-0.012, 0.028	-0.07	0.06	-0.178, 0.041	-0.07	0.06	-0.180, 0.040
Birth Year	1951	0.05	0.01	0.028, 0.062	0.02	0.01	-0.004, 0.047	0.01	0.05	-0.079, 0.105	-0.07	0.08	-0.221, 0.074
	1952	0.05	0.01	0.032, 0.065	0.03	0.01	0.003, 0.051	0.01	0.05	-0.080, 0.108	-0.07	0.07	-0.212, 0.068
	1953	0.04	0.01	0.023, 0.055	0.02	0.01	-0.003, 0.042	0.03	0.05	-0.063, 0.116	-0.05	0.06	-0.180, 0.074
	1954	0.05	0.01	0.031, 0.062	0.03	0.01	0.007, 0.050	0.00	0.05	-0.089, 0.088	-0.07	0.06	-0.194, 0.046
	1955	0.04	0.01	0.022, 0.052	0.02	0.01	0.001, 0.041	0.01	0.05	-0.077, 0.100	-0.05	0.06	-0.158, 0.063
	1956	0.02	0.01	0.006, 0.036	0.01	0.01	-0.013, 0.025	0.02	0.04	-0.062, 0.105	-0.04	0.05	-0.147, 0.068
	1957	0.03	0.01	0.011, 0.041	0.01	0.01	-0.005, 0.031	0.00	0.05	-0.087, 0.092	-0.05	0.05	-0.158, 0.056
	1958	0.02	0.01	0.005, 0.034	0.01	0.01	-0.009, 0.025	0.01	0.04	-0.080, 0.093	-0.04	0.05	-0.143, 0.062
	1959	0.01	0.01	-0.002, 0.027	0.00	0.01	-0.014, 0.019	-0.05	0.04	-0.132, 0.030	-0.09	0.05	-0.177, 0.004
	1961	0.00	0.01	-0.014, 0.015	-0.01	0.01	-0.022, 0.008	-0.04	0.04	-0.120, 0.040	-0.07	0.04	-0.156, 0.015
	1962	0.02	0.01	0.006, 0.034	0.01	0.01	-0.001, 0.029	0.06	0.04	-0.024, 0.140	0.04	0.04	-0.047, 0.122
	1963	0.01	0.01	-0.007, 0.021	0.00	0.01	-0.011, 0.018	0.07	0.04	-0.005, 0.154	0.06	0.04	-0.018, 0.144
	1964	0.01	0.01	-0.005, 0.024	0.01	0.01	-0.007, 0.022	0.01	0.04	-0.069, 0.096	0.01	0.04	-0.077, 0.088
	1965 (ref)	0.00			0.00			0.00			0.00		
	1966	-0.01	0.01	-0.027, 0.005	-0.01	0.01	-0.025, 0.007	-0.02	0.05	-0.109, 0.071	-0.01	0.05	-0.105, 0.076
	1967	-0.01	0.01	-0.026, 0.004	-0.01	0.01	-0.022, 0.009	-0.02	0.04	-0.104, 0.064	-0.01	0.04	-0.092, 0.082
Education	Primary (<9 years)				0.00	0.01	-0.028, 0.019				-0.02	0.06	-0.135, 0.096
	Primary (9 years)				0.00	0.00	-0.009, 0.008				0.03	0.02	-0.011, 0.073
	Secondary (10-11 years) (ref)				0.00						0.00		
	Secondary (12 years)				-0.01	0.00	-0.016, 0.002				-0.03	0.03	-0.085, 0.023
	Tertiary (13-15 years)				-0.03	0.00	-0.036, -0.019				-0.03	0.03	-0.096, 0.035
	Tertiary (15+ years)				-0.03	0.01	-0.039, -0.020				-0.05	0.03	-0.116, 0.008
	Post-graduate				-0.01	0.01	-0.034, 0.009				-0.06	0.09	-0.238, 0.128
	Missing				0.05	0.05	-0.056, 0.148				-0.11	0.17	-0.444, 0.216
Birth Order					-0.01	0.00	-0.013, -0.001				-0.03	0.02	-0.056, 0.005
N		163,246			163,246			23,107			23,107		