

RUNNING HEAD: Fertility Intentions and Voluntary Childlessness

Fertility Intention Emergence and Process during Late Adolescence and Early Adulthood:
Voluntary Childlessness as a Special Case

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Abstract

Using data from the Intergenerational Panel Study of Families and Children 1962-1993, this study examines adolescents' reports of how many children they expect to have in adulthood and compares adolescents across various fertility intention categories to (1) determine whether adolescents expecting to have zero children differ from other adolescents who expect to have children in terms of individual preferences, educational and marital goals, and marital and parental family formation values; and (2) determine whether adolescents who report expecting to have no children typologically resemble willingly childless adults. Using nonparametric statistics, the results of this study support the hypotheses that youth reporting voluntary childless intentions statistically significantly differ from youth intending to have children on a range of dependent variables including preferences for children. Furthermore, youth reporting voluntary childless intentions typologically resemble their adult early deciding voluntarily childless counterparts in terms of individual characteristics. This study provides an alternative perspective on adolescent expectant fertility to the traditionally studied teenage pregnancy and contributes to our knowledge about childlessness and its underlying processes in an understudied population of persons who will constitute an increasing proportion of adults foregoing parenthood.

Introduction

Despite extensive research on the transition to parenthood and nature of romantic unions, researchers still do not know *why* people have children, *why* they engage in certain types of unions, and, most importantly, *whether*, *when*, and *how* family formation decisions are made (Schoen, Kim, Nathanson, Fields, & Astone, 1997). Most fertility intention knowledge is limited to adult populations. From these studies we learn that a sizable minority (30.7%) of married adults and a sizable majority (over 70%) of unmarried adults who experience a pregnancy report that it was unintended (Henshaw, 1998). Our understanding of adolescent fertility (intentions, behaviors, and relations between the two) is limited to youthful childbearing, an area of research that lacks a consensus about the degree to which youthful childbearing is purposeful (Luker, 1996; Zabin, Hirsch, Smith, & Hardy, 1984).

In contrast to unplanned fertility, one form of planfulness – voluntary childlessness – has increased substantially within the United States since the mid-1960s (Daniluk & Herman, 1984; Hoffman & Levant, 1985) with a projection of a 22 percent childless rate in the near future (Heaton, Jacobson, & Holland, 1999). Intentional childlessness is rarely studied among youth and serves as a great comparison for understanding how intentions develop differently for people who make an active decision never to have children, people who make a deliberate decision to have children, and those in between these two poles of the decision-making spectrum.

This study examines how relational and individual characteristics as well as familial and contextual factors differentially predict childless fertility intentions and parenting fertility intentions. The research question specific to this study is: to what extent do family-of-origin (e.g., parent-child intimacy, parental expectations for child's educational and professional achievements) and individual (e.g., preferences for children, personal education and career expectations,

sex-role attitudes, values) factors differentially predict family size fertility intentions? Data collected on youth ages 18 and 23 via The Intergenerational Study of Families and Children are used to test the following hypotheses: (1) youth who report negative family-of-origin experiences or negative parent-child relationships will be less likely to intend children at all and/or prefer small family size; (2) youth with permanent childless intentions will transition into marital unions at a slower pace than people with intentions to have children; and (3) youth who express childless intentions will resemble their adult counterparts in terms of having more egalitarian sex role attitudes, lower religiosity, high value on education and career attainment, and lower affinity toward children.

The Study of Childlessness

What are Childlessness and Voluntary Childlessness?

The operational definition of childlessness varies across studies (Houseknecht, 1987). Some researchers (Morgan, 1991) attribute the childless label to persons who do not currently have children without regard for distinguishing whether the person (a) has made a voluntary choice to never have children, (b) is involuntarily unable to have children, or (c) is merely postponing parenthood until later in their adulthood. Although these people are childless in the general sense (currently they have no children), such studies cannot be generalized to voluntary childlessness because the sample consists of people who may be delaying parenthood and have not made a decision to never have children. As Secombe (1991) notes “differences between the truly childfree and those who are postponing parenthood is another important facet of fertility-related research in which there is a paucity of scientific knowledge” (201). Houseknecht (1987) suggests that researchers need to use at least two dimensions when assessing and describing childlessness: permanence and choice. As she notes, “it is the combination of choice and per-

manence that serves to distinguish voluntary childlessness from childlessness that is due to impaired fecundity, delayed childbearing, or uncertainty” (Houseknecht, 1987, 370).

Trends in Voluntary and Involuntary Childlessness

Childlessness has typically been dichotomized into voluntary – a person makes the conscious decision to never have children – and involuntary – a person experiences subfecundity - distinctions. The incidence of involuntary childlessness has declined over time due to medical advances (e.g., fertility treatment) and easing of adoption processes. Voluntary childlessness, however, accounts for a greater proportion of total childlessness (voluntary plus involuntary) and has increased over time (Houseknecht, 1987). Depending on the definition of childlessness and sample used, the proportion of childbearing-aged women who are voluntarily childless ranges from 6.4 (for married couples studied in the 1980s) to 20 percent (projections for women born in 1962) (Heaton, Jacobson, & Holland, 1999; Houseknecht, 1987; Rovi, 1994). The fact that Americans have experienced decreased fertility is well documented and voluntary childlessness has and continues to play a part in that decline (Bianchi & Casper, 2000; Morgan, 1991, 1996; Rindfuss & Brewster, 1996; Teachman, Tedrow, & Crowder, 2000). Although this trend is well evidenced, researchers lack a unified explanation for why the decline has occurred (Hirschman, 1994). Such a unified explanation most likely does not exist because of the heterogeneity of fertility patterns and motivations across subgroups of people.

Pathways into Voluntary Childlessness

It is important to note that there is heterogeneity among voluntarily childless individuals. People who decide early or late in their lives that they intend to remain childless make more rational and conscientious decisions specifically about the role of parenthood in their lives than people who make a series of decisions based on timing thereby postpone childbearing (eventu-

ally indefinitely). The same is true of involuntary childless individuals, some of whom actively seek fertility treatment, some of whom participate in adoption, and others who forego parenthood. There is a debate about whether subfecund individuals who forego parenthood are considered involuntarily or voluntarily childless. This issue is a slippery slope because by some accounts these individuals could become parents by opting for medical interventions and/or adoption. Ultimately, the decision to parent *exists* for them, but they *choose* to forego parenthood. By other accounts the inability to biologically reproduce offspring is not a choice and these people may consider childbearing the only acceptable route to parenthood for them. This issue will not be resolved by the proposed study, but it is important to note that within subgroup (e.g., voluntary and involuntary childlessness) heterogeneity exists and implies the possibility that patterns and processes governing fertility intentions, behaviors, and outcomes differ within these subgroups.

The Study of Fertility Intentions

Understanding Fertility Intention Emergence

Little is known about when fertility intentions emerge and how they develop over time for three reasons. First, most studies have relied on married couples to learn about fertility intentions and decision-making. Married persons typically have made stable decisions about family formation intentions prior to marriage and tend to desire children. Furthermore, the pronatalist pressures (especially from family and friends) that accompany marriage reduce the variability in fertility intentions, decisions, and behaviors among married persons. Second, research has failed to differentiate between delayers and voluntary childless persons. Counting delayers as childless by the general definition (e.g., if people who do not have children yet) has major implications for understanding change versus stability of voluntary childless intentions because these delayers

who postpone marriage and parenthood are implicitly assumed to intend childlessness. Transitions into parenthood by delayers are used as evidence that childlessness is a more unstable state than it actually is if only voluntary childless persons were assessed.

Third, fertility intentions and the process of family formation decision-making have been neglected areas of study during adolescence. Some researchers have stated that waiting until marriage to assess fertility intentions bypasses issues of assessing intentions that change (Houseknecht, 1987; Rovi, 1994). Such measurement assumptions overlook the process involved in family formation decision-making. Change is not error; it is data. Other researchers have noted that they do not trust reports of intentions by adolescents. If adolescents bearing children are trustworthy as respondents, why not study their converse?

In the adolescent fertility literature, adolescent pregnancy and childbearing receive a lot of attention. The planfulness (Clausen, 1991) of family formation, such as adolescents' timetables, goals, and expectations of marriage and parenthood, is studied from a perspective that emphasizes educational and career motivations delaying childbearing behaviors. With the exception of a few studies (Kenkel, 1985; Trent, 1994; Trent & Crowder, 1997; Trent & South, 1992), the intention to remain childless is not directly examined during adolescence despite studies of voluntary childless adults that reveal a non-negligible proportion made their fertility decisions as adolescents (Veivers, 1980). Kenkel (1985) notes that studying adolescent family formation intentions is warranted:

It is thought not to be unrealistic to ask youthful respondents about their family size plans and to accept their answers as an indication of how they felt at the time (Kenkel, 1985, 510).

The focus of the proposed study is to compare offspring adolescents who report childless fertility

intentions with adolescents who report parenting fertility intentions (e.g., expect to have one, two, three, or four-or-more children).

Do People Make Fertility Decisions?

To what extent do people make rational, conscious decisions about future childbearing? This question remains unresolved. Some researchers argue that a series of indecisions governs childbearing outcomes (Furstenberg, 1976, 1993). According to this argument, people engage in behaviors that lead to childbearing because they have not chosen to prevent pregnancy and subsequent birth. For example, one potential avenue by which a person becomes pregnant is by engaging in frequent, non-contracepted sex that results in a pregnancy that is not terminated via spontaneous or elective abortion. The person did not intentionally become a parent; instead, parenthood occurred by default.

Other researchers contend that people make rational, conscious decisions regarding childbearing. According to microeconomic theory, a person considers both the costs and benefits of engaging in certain behaviors (Becker, 1960). After determining that the behavior would result in more benefits or fewer costs than alternative behaviors, the person engages in that behavior. If the person determines that the behavior would result in greater costs than not engaging in the behavior, the person will refrain from that behavior. For example, a person will consider having sex and will determine the balance of costs and benefits they would incur as a result of childbearing. If the costs do not outweigh the benefits or if the costs of childbearing are less than the costs of foregoing sexual activity, the person will engage in sexual activity.

According to Nock (1987), most people are aware of the costs of childbearing in an abstract sense; but, most people do not register the impact childbearing would have on their lives personally. Nock (1987) dismisses microeconomic theory as a sufficient explanation for fertility

decisions. He describes how financial costs of children have not changed much over time and how differences in income for couples with and without children are not appreciably different (couples with children have higher income). Furthermore, Nock (1987) highlights that most people are unaware of and/or cannot calculate the full magnitude of impact childbearing and parenthood would have on their lives: “few women correctly anticipate the consequences of becoming a mother” (378) and “men and women appear almost totally unaware of the time commitments associated with have a child before they become parents” (381).

As an alternative explanation to microeconomic theory, Nock (1987) theorizes that people make decisions in adulthood based on worldviews they have developed beginning in childhood. In terms of fertility, Nock (1987) proposes that females have developed a symbolic understanding of motherhood based on women’s roles in the labor force, in romantic relationships, and in the domestic realm. These personal views of motherhood, in turn, influence subsequent fertility. Traditional women, who understand motherhood as a “natural” role for females, tend to embrace motherhood. For other women the role of motherhood has been redefined as “an undesirable social construction” and view achievement in terms of education, career, and income as opposed to motherhood. This theory of worldview-orientation influencing parenthood/ motherhood decisions will be addressed in the proposed study by taking into account respondents’ sex role attitudes, marital intentions, and career and educational aspirations.

It may be that people who select some childbearing alternatives are more prone to rational, conscious decision-making than people who select other childbearing alternatives. For instance, adoption of a child is rational, conscious, and salient fertility decision-making process. Another alternative - voluntary childlessness – may serve as an additional example of rational, conscious fertility decision-making. The voluntary childless literature brings to the forefront the

question of whether and when do people make decisions about childbearing. Although retrospective, many voluntarily childless adults report that they made their decision to be childless during adolescence (Veevers, 1980). Houseknecht (1987) describes two avenues to childlessness – early articulators and postponers. The postponer category, however, encompasses both people who make an active decision later in life and those who make a series of passive decisions. By considering childlessness a trichotomy as opposed to a dichotomy, researchers can assess the heterogeneity among postponers. Hence, I propose there are three ways in which a person becomes voluntarily childless (all of which are indirectly discussed in the literature).

First, *early articulators* make an active decision to forego parenthood during their adolescence. Typically this occurs during mid-to-late teenage years and early twenties. *Early articulators* say that they made the decision not to have children because of personal preferences and attitudes about children and parenthood as well as family dynamic and structural issues, most notably parentification whereby these people were expected to assume parenting responsibilities for younger siblings. These early articulators claim that they have already done their parenting duties by rearing their siblings. Other commonly reported reasons cited by early articulators for deciding against having children include fear they will be bad parents, deidentification with same-sex parents (in turn rejecting the parenting role), incompatibility of parenthood with career and leisure preferences, disinclination toward children, and traumatic early life events (experiencing parental divorce and attributing it to parental demands and child presence) (Houseknecht, 1987). Some of these reasons speak to socialization processes that may foster the development of negative internalizing working models of parenthood (e.g., parenthood destroys spousal relations). These early experiences and rationalizations appear robust and resilient to change. In other words, early articulators are least likely among all voluntarily childless indi-

viduals to change their intentions over the course of development. Another explanation (aside from internalization/ social learning) for early articulators' decision stability is selection – namely, mate selection and selection out of marriage either by self or other. Early articulators may choose mates with similar childless expectations thereby minimizing parenting pressures associated with partnering. Furthermore, early articulators may choose to forego marriage because of its traditionalism (defined in part by pronatalist pressures) or may not have opportunities to marry because they are perceived by potential mates as unmarriageable.

Second, *late articulators* make an active decision during adulthood (during their twenties through early thirties) to not have children. *Late articulators* typically attribute this decision to career and lifestyle factors (Houseknecht, 1987; Veevers, 1980). For instance, *late articulators* believe that parenthood and career aspirations are inconsistent or that parenthood does not offer the same satisfaction as independence. Others may fear that parenthood would compromise their intimate relationship with a spouse. Additional reasons offered for foregoing parenthood include partner choice (they become involved with a partner who does not want to have children or a partner they do not believe will be an egalitarian parent), experience with others' children (see other peoples' experiences with first hand give them exposure to realistic parental demands and related consequences for people in their reference group), and health (physical and mental health related problems that emerge during late 20s and early 30s may give the person pause about their capabilities of bearing and rearing children).

Third, *perpetual postponers* passively choose a life without children because of sequence of decisions that the time was not right to have children due to career, education, and/or marriage (postponement) plans. Eventually, they postpone childbearing until a point in their lives when childbearing is not probabilistic (age 40 and over when biological barriers are most prominent)

or childbearing is not preferable.

Early and late articulators of childless fertility intentions are of utmost interest in this study because, by definition, they evidence that people make rational, conscious fertility decision and, for early articulators in particular, that fertility intentions emerge relatively early in the developmental life course. Previous research has not directly documented, in terms of prospective data, whether early articulation of childless fertility intentions occurs during adolescence. Furthermore, whether youth make conscious decisions about parenting fertility intentions has not been examined. Some research suggests that people become parents by default because they go along with the status quo (the majority of people have children) or because they do not make future-oriented fertility plans (e.g., parenthood just happens in time).

Fertility intentions have implications for sexual behaviors and union formation among youth. For instance, youth who intend not to have children or not to have children until later adulthood are more likely to use contraceptives or to delay sexual activity onset (Kirby, 2001; Luker, 1996). In contrast, youth who intend to have children or who want to have children at an early age may engage in sexual activity or marital relationships at an early age and may decide against using contraceptives. Understanding when and how fertility intentions emerge and how intentions translate into outcomes has major implications for understanding family formation. If the process begins prior to or during adolescence, research needs to focus more on this earlier stage of development as opposed to dismissing it. It may be family formation preferences develop at earlier developmental stages, calling into question the commonly held belief that it is one of the fundamental developmental tasks of young adulthood.

Process of Family Formation Decision-Making

The importance of specific fertility determinants has changed in significance over time

and may be different for males and females. Studies conducted in the 1970s found socioeconomic status, age, religion, birth order, parental warmth, autonomy, egalitarian sex role attitudes, achievement-orientation (education, employment, income goals), ethnicity, residence (urban versus rural), and union status (married versus single) as significant determinants of voluntary childlessness (Houseknecht, 1987; Macklin, 1980; Veevers, 1980). Some of these determinants, however, are losing their predictive power and some are no longer “universally” holding for recent research (Jacobson, Heaton, & Taylor, 1988). Jacobson et al. (1988) found that the strongest determinant of childlessness is marital status. Never married and cohabiting persons are more likely to be voluntarily childless, confirming that marriage is a selective institution and studies focusing only on married people are not representative of voluntarily childless population. The second strongest determinant is age whereby older women have a greater likelihood of remaining childless. Determinants declining in significance are labor force participation, female education, and race.

In general, as increasing numbers of people enter the labor force (due to the economic necessity of dual income households), enroll in higher educational institutions (due to shifts from labor economy to market economy to technological economy), and choose childlessness, these determinants have depreciated in their power to differentiate between voluntary childless persons and parents. It may be that voluntarily childless people are becoming a less selective group of people over time, in turn, undermining determinants previously found to differentiate between voluntarily childless persons and those who intend to have children. Additionally, the use of more representative samples may contribute to new findings that discount previous assumptions. Samples of diverse ethnic groups and males may uncover different motivations and patterns for various fertility intentions. The assumption that higher socioeconomic status equates to height-

ened intentions for childlessness has been documented. But when other groups of individuals are studied and compared to previous groups' findings, determinants do not operate in the same fashion. For example, inclusion of males changes assumptions about SES and childless expectations whereby males with lower earning potential have higher rates of childless intentions compared to males with higher earnings. Seccombe (1991) noted that the determinants of childless intentions do not vary as a function of socioeconomic status for females. She theorizes that women have so much more to lose in terms of opportunity costs at every socioeconomic stratum that women make similar assessments of costs and benefits across strata.

Gender differences exist in childless decision-making and persistence of those decisions. Given that motherhood is intrinsically entwined with female identity and that the domestic realm is assumed to be the primary responsibility of females, females have more to lose and gain in making decisions about childbearing. Seccombe (1991) examined perceived costs and benefits of having children among married men and women of childbearing age who had not yet had children (whom she labels as "childfree"). Seccombe (1991) found that males held more pronatalist attitudes, gave greater importance to childbearing, and reported fewer childless expectations. Females, however, were more likely to report childless intentions (19 percent for females versus 13 percent for males). Interestingly, Seccombe (1991) found that females' childless intentions did not vary as a function of socioeconomic status; a negative relationship existed for males whereby males with lower wage earnings or professional prestige were more likely to report childless intentions, due in part because they expect to failing at fulfilling the traditional breadwinner/ provider male role. These gender differences in childless intentions, both in degree and rationale, have been documented by several studies (see review by Houseknecht, 1987).

The objectives of the study are the following: (1) to assess whether intentions for perma-

ment voluntary childlessness exists in adolescence; (2) to determine how adolescents who intend to be permanently childless differ from adolescents intent to become parents in terms of educational and marital goals, family relationships, and egalitarian values; and (3) to test the degree to which adolescents who intend to be permanently childless typologically resemble their counterparts – early deciding voluntarily childless adults.

Method

Participants

This study is based on data from the Intergenerational Study of Parents and Children – 1962-1993 (Thornton & Freedman). This 31 year panel study consists of eight waves of data collected on Caucasian mothers of firstborn, secondborn, or fourthborn children born in Detroit. A probability sample of mothers who gave birth in 1961 were interviewed beginning in 1962 (n=1,113) and were last interviewed in 1993 (n=884). Beginning in 1980 at the age of 18, the youth were interviewed (n=935). These youth completed interviews in 1985 at the age of 23 (n=923) and in 1993 at the age of 31 (n=906). A total of 857 mother-youth dyads have data for each wave of collection. The analyses for this study are limited to youth data collected in 1980 and 1985 (n=889), representing early and late adolescence respectively. For both 1980 and 1985 there were 443 male youth (49.2%) and 446 female youth (50.8%).

Procedures

Mothers were interviewed seven times (1962, 1963, 1966-67, 1977, 1980, 1985, and 1993) and youth were interviewed three times (1980, 1985, 1993). Topics covered during the youth interviews centered around questions about fertility and romantic relationship (family formation) intentions and status, education and occupation status and pursuits, sex-role attitudes, relationships with both mother and father, as well as other questions that were asked only at cer-

tain time points (e.g., attitudes toward children in 1980, religiosity in 1985).

Measures

Intended family size. The questionnaires used during the interviews contained many quantitative variables. In terms of family size intentions, in both 1980 and 1985 youth were asked “how many children do you expect to have altogether when your family is completed?” For these analyses, these items were used to create two new variables for each time of measurement. The first new variable reflected intended family size and was created by designating a value of zero for youth intending to have no children, a value of one for youth intending to have only one child, a value of two for youth intending to have two or three children, and a value of three for youth intending to have four or more children. These values reflect childlessness, small, average, and large family sizes respectively. The second new variable reflected intended childlessness versus parenthood intentions by creating two groups: those youth who intend to have no children (childless) and those youth who intend to have any children (parent). Both of these new variables are used in testing the hypotheses of this study.

Youth-parent relationship intimacy. In 1980 and 1985 youth were asked to self-report about the quality of their relationship with both their mother and father. The relationship intimacy scales contain seven items, each rated on a four-point scale from 1=always to 4=never. Higher mean values on the scale denote poorer relationship intimacy with the respective parent. It was hypothesized that youth intending to be childless would report poorer relationship intimacy with their parents relative to youth intending to be parents. The psychometric properties for these scales are reported in Table 1 as a function of time of measurement (1980 or 1985) and the target parent (mother or father). The Cronbach alpha internal consistency reliabilities for these scales are very high, ranging from .86 to .90. Table 1 also includes the actual items asked

of youth.

Parents' expectations for youth family formation. Youth reported the degree to which they thought it would bother their mothers and fathers if youth never had children. This rating used a four-point scale whereby 1= a great deal and 4 = not at all. These questions were only asked in 1985.

Sex-role attitudes. In 1980 and 1985 youth self-reported on their sex-role attitudes using a five-point Likert scale from 1=strongly agree to 5=strongly disagree. Higher mean values on the scale represent more egalitarian (less traditional) sex role attitudes for youth. It was hypothesized that egalitarian sex role attitudes would characterize youth intending to be childless relative to youth intending to be parents. The psychometric properties for these scales are reported in Table 2 along with the specific items asked of youth. The scale used in 1980 contained twelve items, three more items than the scale used in 1985 (these items are noted in Table 2). Both scales have moderately high Cronbach alphas (.73-.74) suggesting high internal consistency.

Attitude toward children. Youth were asked in 1980 and 1985 to rate how much worry and emotional strain children cause their parents. This rating used a four-point scale whereby 1= a great deal and 4 = not at all.

Preferences for children. Three single items were included only in the 1980 interview and were of particular interest because they assessed the degree to which youth liked playing games with little children, taking care of little children, and talking with little children. The scale for each question was a 10-point Likert ranging from 1 = dislike a great deal to 10 = enjoy a great deal.

Youth attitudes about marrying. Youth were asked whether they thought they will ever get married with 1 = yes, 2 = probably, 3 = maybe/depends, and 4=no. It was hypothesized that

youth with intentions to be childless would be less certain about ever marrying.

Results

Prevalence of Childlessness

Counts of youth who intend various family sizes in both 1980 and 1985 are reported in Table 3. In 1980 nineteen youth (2.1%) reported intending to have no children in their adult years. Of these 19 youth, seven were male and twelve were female (not shown). In other words, approximately two-thirds of youth reporting childless intentions in 1980 were female. In 1985, 42 youth (4.7%) reported childless intentions. Of these youth 18 were male and 24 were female; nearly 60 percent of youth intending childlessness at age 23 were female.

Statistical Procedures

Given the small proportion of youth who report intentions to remain childless at both age 18 (1980) and age 23 (1985), the unbalanced design, and lack of confidence in normality, non-parametric statistics are used for hypothesis testing. Most of the hypotheses were tested using 85 percent embedded confidence interval boxplots that provides a two-sided test of medians with .05 significance levels. The confidence intervals are created using medians rather than means thereby reducing the potential for effects attributed to outliers. When the embedded confidence intervals for groups being compared are disjoint, we are 95 percent confident that the medians for those groups are different (come from different populations). Given that the confidence interval boxplots are roughly confirmatory, these analyses were followed up using Kruskal-Wallis (KW) and Mann-Whitney (Wilcoxon) rank tests comparing youth reporting various fertility intentions (childless, small, average, and large sized families).

The Kruskal-Wallis is used to statistically explore differences among more than two samples. It serves as the nonparametric analog to the one-way analysis of variance. The

Kruskal-Wallis rank test (KW) is the method used to make general statements about differences. The Mann-Whitney (Wilcoxon) rank test is a two-sample permutation test based on the sum of ranks (it is equivalent to a one-sample t-test). It provides a test of the differences in average ranks. Whereas the Kruskal-Wallis test is an omnibus test to determine whether differences exist among more than two groups, the Mann-Whitney (Wilcoxon) test assesses differences between specific pairs of groups; in this case these tests were used to assess differences between youth reporting childlessness intentions and youth reporting parenting intentions.

Family of Origin

Two set of family of origin factors were assessed in these analyses: (a) youth-mother and youth-father relationship intimacy at youth ages 18 (1980) and 23 (1985), and (b) mother and father expectations for youth family formation. It was hypothesized that youth intending to remain childless would report poorer relationship quality with both parents. The results of this hypothesis were mixed. When examining youth-mother relationship intimacy reports in 1980 and in 1985 as a function of intended family size, there were no significant differences among the family size groups although youth intending to remain childless did report higher medians for mother-youth intimacy in 1985 (meaning poorer quality).

When examining youth-father relationship intimacy reports as a function of intended family size, however, a significant difference emerges. In 1980, there is no significant difference in youth-father intimacy between youth intending to remain childless and youth intending to have children, but there is a difference between youth intending to have only one child and youth intending to have more than one child ($H = 7.46$, $DF = 3$, $p = 0.058$). As can be seen in Figure 1, the confidence intervals do not overlap for small versus large family size intentions and barely overlap for small versus average family size intentions. But, the more salient finding concerns

youth-father relationship intimacy reports in 1985 whereby youth intending childlessness report greater medians (poorer relationship quality) relative to the other three fertility intention categories (see Figure 2). According to the Kruskal-Wallis rank test, there is a significant difference in reports of youth-father relationship intimacy ($H = 10.28$, $DF = 3$, $p = 0.016$). When youth with childless intentions were compared to youth with parenting intentions (Figure 3) using the Mann-Whitney (Wilcoxon) test, youth with childless intentions report poorer relationships with their fathers in 1985 ($W = 10327.5$, $p = .05$). It appears that relationships with fathers, not mothers, more efficiently differentiate youth who intend childlessness from youth who intend to have children.

In terms of the degree to which mothers would be bothered if youth never had children as a function of youth family size intentions, youth who intend childlessness report that their mothers would be bothered less than reports by youth who intend to have children (Figure 4; $H = 13.54$, $DF = 3$, $p = 0.004$). In terms of childlessness intentions, youth intending to be childless reported that their mothers would be bothered less by their childlessness relative to youth intending to be parents (Figure 5; $W = 9332.0$, $p = 0.0006$). These patterns did not hold for youth reports about fathers. It appears that youth perceive fathers to be bothered to the same degree regardless of family size and childlessness intentions because youth reporting childlessness intentions report fathers to be more bothered than they reported their mothers to be bothered by their childlessness (values did not change for the other three family size intention group youth).

Sex-Role Attitudes

It was hypothesized that youth with childlessness intentions would report more egalitarian sex-role attitudes. The results of these analyses provide evidence for this hypothesis. In 1980, youth intending childlessness reported higher medians on sex-role attitudes (more egalitar-

ian) relative to the other three family size groups of youth (Figure 6). These results were statistically confirmed by the Kruskal-Wallis test ($H = 18.84$, $DF = 3$, $p = 0.000$). Furthermore, when youth with childless intentions were compared to youth with intentions to parent (Figure 7), childless youth were characterized by more egalitarian sex-role attitudes ($W = 11719.0$, $p = .0032$).

These results were similar to those for youth reports in 1985. In 1985, youth with childless intentions reported higher median sex-role attitudes relative to youth in the other three family size groups (Figure 8; $H = 29.76$, $DF = 3$, $p = 0.000$) and higher median sex-role attitudes than youth in 1980 (Figure 6). When compared to youth who intend to become parents (Figure 9), youth who intend to be childless in 1985 have more egalitarian sex-role attitudes ($W = 26766.0$, $p = .000$).

Attitudes toward Children

Youth were asked the degree to which they believe children cause their parents worry and emotional strain. It was hypothesized that youth intending to be childless would have less positive attitudes toward children relative to youth who intend to be parents. The results provide support for this hypothesis. According to Figure 10, in 1980 youth intending to be childless report that children cause a great deal of worry and emotional strain relative to youth who intend to have children ($H = 16.85$, $DF = 3$, $P = 0.001$). When examined as a function of childlessness intentions (Figure 11), youth intending to remain childless were more negative in their attitude about children relative to youth intending to be parents ($W = 5190.0$, $p = 0.0023$). These results remained in 1985 as a function of intended family size (Figure 12; $H = 12.08$, $DF = 3$, $p = 0.007$) and intended childlessness (Figure 13; $W = 13324.5$, $p = 0.0003$) whereby youth intending childlessness report children cause parents a great deal of worry and emotional strain.

Preference for Children

Individual level preferences for children were measured as the degree to which youth liked caring for little children and playing with little children. It was hypothesized that youth intending to be childless would have greater feelings of dislike toward interactions with children than youth intending to be parents. This hypothesis was supported by the analyses. First, in terms of preference for caring for children, youth reporting childless intentions were more likely to report dislike for caring for little children relative to youth reporting family size intentions of small, average, and large (Figure 14; $H = 47.72$, $DF = 3$, $p = 0.000$). The follow-up Mann-Whitney (Wilcoxon) test confirmed that youth with childless intentions statistically significantly dislike caring for little children more relative to youth who intend to be parents (median = 1 versus median = 7, respectively; $W = 2059.0$, $p = 0.0000$).

Youth who intend childlessness report greater levels of dislike in playing with little children relative to youth who intend have small, average, and large family sizes (Figure 15; $H = 41.35$, $DF = 3$, $p = 0.000$). The follow-up Mann-Whitney (Wilcoxon) test confirmed that youth with childless intentions statistically significantly dislike playing with little children more relative to youth who intend to be parents (median = 2 versus median = 7, respectively; $W = 2524.5$, $p = 0.0000$). Figure 16 provides a summary of the three child preference indicators used in the study: likes caring for little children, likes playing with little children, and likes talking with little children. According to Figure 16, compared to youth with intentions to have children, youth with childless intentions report significantly less favorable attitudes toward caring for children ($M=6.9$ versus $M=2.4$ respectively, $p<.05$), playing with children ($M=6.9$ versus $M=3.0$, $p <.05$), and talking with children ($M= 7.4$ versus $M=4.0$, $p <.05$).

Marital Certainty

In terms of marital certainty, the hypothesized relationship between intended childlessness and less certainty about marriage was supported by the analyses. As presented in Figure 17 whereby higher values denote less certainty, youth with childless intentions are less certain about ever marrying relative to youth with intention to have children ($M=1.89$ versus 1.27 respectively, $p<.05$).

Discussion

This proposed study addresses several methodological limitations that have caused many researchers to criticize prior voluntary childlessness studies. First, little is known about the specific processes underlying why people choose to remain childless or why they have children (Schoen, Kim, Nathanson, Fields, & Astone, 1997). Research typically relies on outcome rather than process-oriented approaches (Houseknecht, 1987). Future work must attempt to model the mediating and moderating factors that predict fertility intentions. This study aims to answer process-oriented research questions by examining how relational and individual characteristics as well as familial and contextual factors differentiate between youth with childless fertility intentions and parenting fertility intentions. Furthermore, this study aims to document the first of the three theorized categories of voluntarily childless persons: early deciders (Houseknecht, 1987). Early deciders actively decide early in life, during adolescence, to not have children.

Second, research that has attempted to assess processes underlying childless fertility intentions relies on qualitative, retrospective data. Findings from these data suggest that many voluntary childless adults, especially those reporting the strongest childless fertility intentions, made their decision during adolescence. The retrospective and qualitative nature of these data has resulted in other researchers not giving much credence to the findings. One of the largest critiques is the argument that these childless adults cannot accurately remember when the decision was

made. This criticism holds least for participants who recount specific events and experiences that precipitated their decision, such as parentification when they had to assume the parenting role when younger siblings were born. This study examines fertility intentions during adolescence into adulthood. Furthermore, the longitudinal nature of these data permits prospective analyses to determine how fertility intentions reported at age 18 translate into fertility intentions and behaviors at age 23 and 31.

Study Contribution to the Literature

Emergence in adolescence. This study directly examines adolescent fertility intentions. Given that a distinct group of adolescents report permanent childless intentions, despite being only 2.1 percent of the sample, this study evidences that early articulation does occur. The question remains, however, how early do these preferences for permanent childlessness emerge? Although this study cannot assess the exact timing of these fertility intentions, it does suggest that these family formation intentions warrant assessment in early adolescence and perhaps even into late childhood. It is no longer acceptable to claim that prepubescent youth and/ or teenage youth are too young to make future fertility and marital decisions. As a result of this study, we know that youth have made these decisions by age 18. Youth reporting permanent childlessness intentions typologically resemble voluntarily childless adults, especially adults who claim to have made their decision during their adolescence, in terms of egalitarian sex role attitudes, marriage plans (less certainty about ever marrying), poorer youth-father relationship quality, less positive attitudes toward children, and greater dislike of interacting with little children even if it is taking care of them, playing with them, or talking with them.

Furthermore, twice as many female adolescents reported permanent childlessness relative to males in 1980; a finding consistent with the literature on motherhood being more entwined

with female identity than fatherhood being entwined with male identity (Chodorow, 1998; Hrdy, 1999). Gender differences exist in childless decision-making and persistence of those decisions. Given that motherhood is intrinsically intertwined with female identity and that the domestic realm is assumed to be the primary responsibility of females, females have more to lose and gain in making decisions about childbearing. Seccombe (1991) examined perceived costs and benefits of having children among married men and women of childbearing age who had not yet had children (whom she labels as “childfree”). Seccombe (1991) found that males held more pronatalist attitudes, gave greater importance to childbearing, and reported fewer childless expectations. Females, however, were more likely to report childless intentions (19 percent for females versus 13 percent for males).

Education and career aspiration as fertility determinants. Educational and career aspirations were tested and did not significantly differentiate between youth who intend to be permanently childless and youth intending to become parents. This may be an artifact of the select middle-class, predominantly Caucasian sample used in this study.

Study Limitations and Future Directions

Sample composition. The fact that a predominantly Caucasian sample was used is a major limitation of this study. Examining fertility intentions among a more diverse, nationally representative group of adolescents would allow for testing racial, ethnic, family constellation, and gender differences in terms of emergence, prevalence/ incidence, and determinants of various fertility intentions, especially childlessness. The use of more representative samples may contribute to new findings that discount previous assumptions. Samples of diverse ethnic groups and youth from single-parent families may uncover different motivations and patterns for various fertility intentions.

Cohort effects. Furthermore, this study is susceptible to cohort effects in terms of youth being born in 1961 in Detroit. Future studies need to assess how fertility intentions change across development for various subgroups of people as well as how history and cohort influences have influenced the timing of fertility intention emergence. Given that more people are choosing independent lifestyles and alternatives to traditional family forms (e.g., intact, nuclear families), cohort biases need to be addressed. This can be accomplished using a longitudinal, multiple cohort design.

Biological determinants. Last, in addition to family environmental factors, biological explanations - especially female hormonal levels - need to be assessed. Studies (Udry, Morris, & Kovenock, 1995) assessing hormonal influences on family formation suggest that women with characteristically high testosterone levels have lower proclivity toward children and report less desire to have children suggest that biological variables cannot be ignored.

Future Direction

The analyses of this paper support the belief that voluntary childless fertility intentions are formed in adolescence. Youth reporting childless fertility intentions were statistically different from their peers who intend to become parents on many of the hypothesized individual dimensions. And, youth who intend to remain childless have characteristics that resemble those discovered in retrospective studies. Future analyses need to examine gender differences in these characteristics as well as what predicts persistence in fertility intentions and changes in fertility intentions over time. This is especially important when trying to understand late decisions and perpetual postponement and how these processes are similar to and different from early decisions to remain childless. Last, research needs to direct attention toward understanding the extent to which youth who report family size intentions of two children have made a conscious, rational

decision rather than reporting the status quo.

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Tables

Table 1: Psychometric Properties for Relationship Quality between Youth and Parents

Scale	Cronbach Alpha Reliabilities	Number of Items	Scale Items*
Youth-Mother Relationship Quality (1980)	0.877999 (raw) 0.877475 (std)	7	My mother's (father's) ideas and opinions about the important things in life are ones I can respect. My mother (father) respects my ideas and opinions about the important things in life.
Youth-Mother Relationship Quality (1985)	0.860564 (raw) 0.859718 (std)	7	My mother (father) accepts and understands me as a person. I enjoy doing things with my mother (father).
Youth-Father Relationship Quality (1980)	0.900075 (raw) 0.900281 (std)	7	My mother (father) makes it easy to confide in her (him).
Youth-Father Relationship Quality (1985)	0.889415 (raw) 0.889569 (std)	7	My mother (father) gives me the right amount of affection. When something is bothering me, I am able to talk it over with my mother (father).

* 1=always, 2=often, 3=sometimes, 4=never. Higher values denote poorer relationship quality

Table 2: Psychometric Properties for Youth Sex Role Attitudes

Scale	Cronbach Alpha Reliabilities	Number of Items	Scale Items*
Sex-Role Attitudes (1980)	0.743421 (raw) 0.739113 (std)	12	<p>Most of the important decisions in the life of the family should be made by the man of the house.</p> <p>When there are children in the family, parents should stay together even if they don't get along.</p> <p>It's perfectly alright for women to be very active in clubs, politics, and other outside activities before the children are grown up. (^)</p> <p>There is some work that is men's and some that is women's and they should not be doing each others.</p> <p>A wife should <u>not</u> expect her husband to help around the house after he comes home from a hard day's work.</p> <p>A working mother can establish as warm and secure a relationship with her children as a mother who does not work. (^)</p>
Sex-Role Attitudes (1985)	0.734397 (raw) 0.736570 (std)	9	<p>It is much better for everyone if the man earns the main living and the woman takes care of the home and family. (~)</p> <p>Women are much happier if they stay at home and take care of their children.</p> <p>It is more important for a wife to help her husband's career than to have one herself.</p> <p>A man's family should always come before his career. (~)</p> <p>A pre-school child is likely to suffer if his mother works.(~)</p> <p>It is more important for a man to spend a lot of time with his family than to be successful at his career. (~)</p>

* 1=strongly agree, 5=strongly disagree. Higher values denote more egalitarian/ less traditional. ^ recoded items ~ not asked in 1985

Table 3: Intended Family Size in 1980 compared to 1985

Intended Family Size (at age 18 in 1980)	Intended Family Size (at age 23 in 1985)				Total
	0 childless	1 small	2 average	3 large	
0 childless	14 (73.7%)	0	5	0	19
1 small	4	6	21	0	31
2 average	17	22	475 (83.2%)	57	571
3 large	7	9	164	88	268
Total	42	37	665	145	889

Family Size Scale: 0= intend childlessness (no children); 1= small family (1 child); 2= average size family (2-3 children); 3= large family (4 or more children). Statistics: chi-sq (1, 9) < .0001

Figures

Figure 1: Relationship Quality/ Intimacy with dad in 1980 as a function of Intended Family Size

85% Confidence Interval Boxplot

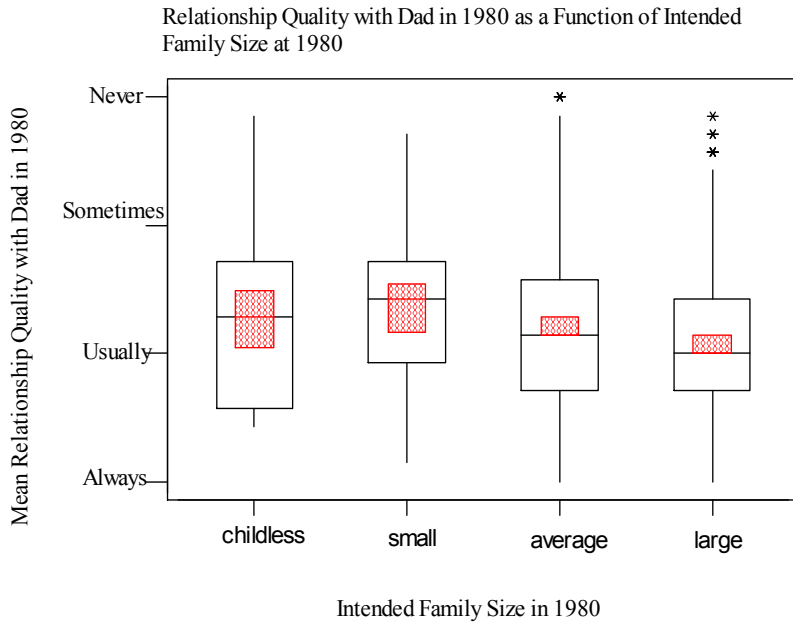


Figure 2: Relationship Quality/ Intimacy with dad in 1985 as a function of Intended Family Size

85% Confidence Interval Boxplot

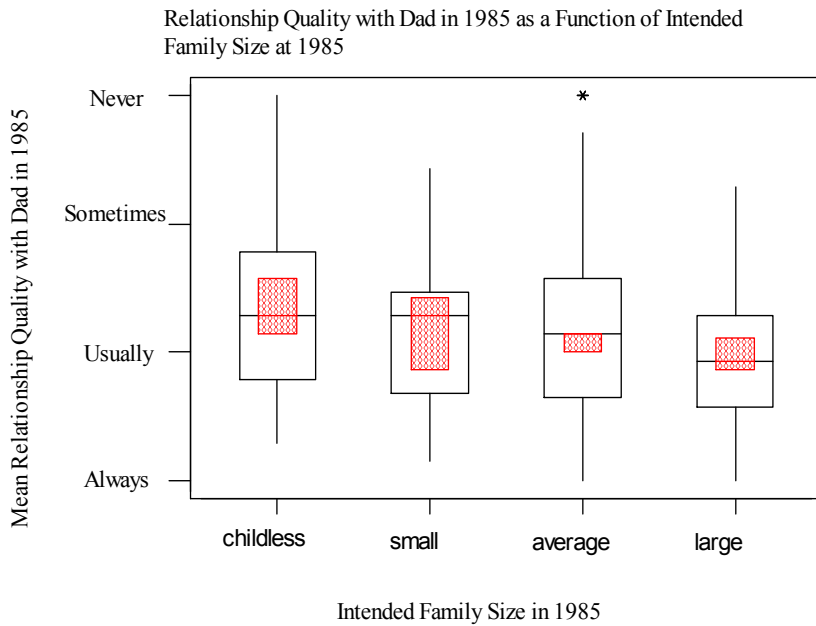


Figure 3: Relationship Quality/ Intimacy with dad in 1985 as a function of Intended Childlessness

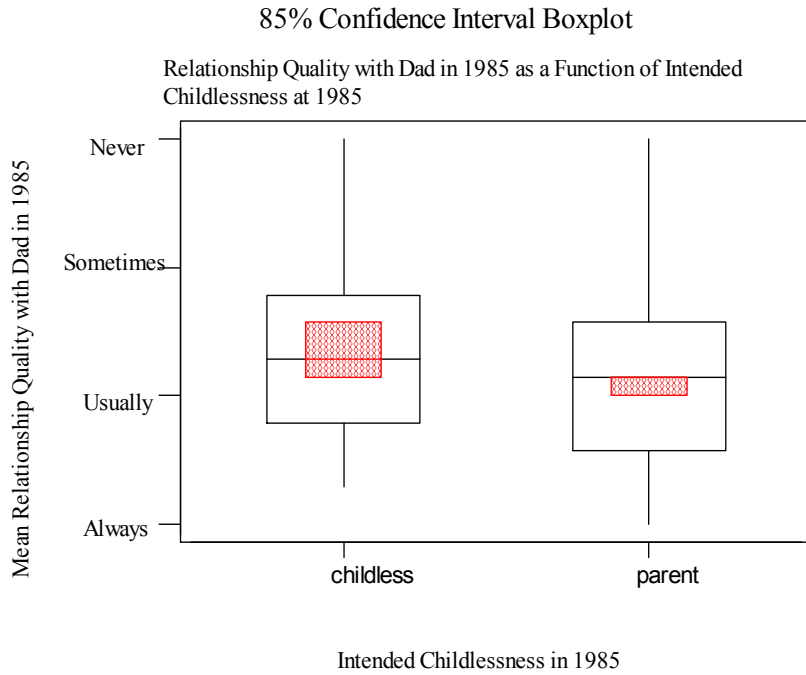


Figure 4: Degree Mothers would be Bothered if Youth Never Had Children as a Function of Intended Family Size

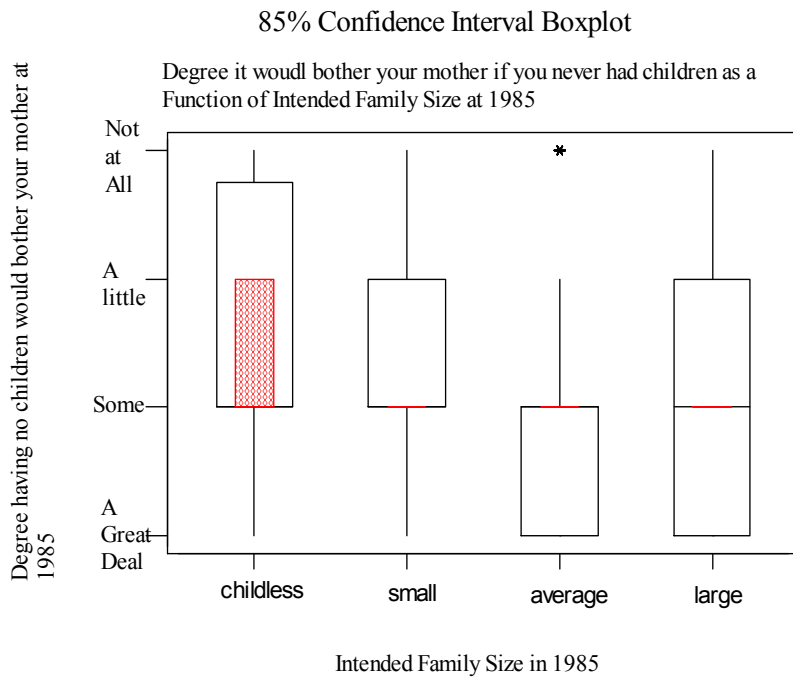


Figure 5: Degree Mothers would be Bothered if Youth Never Had Children as a Function of Intended Family Size

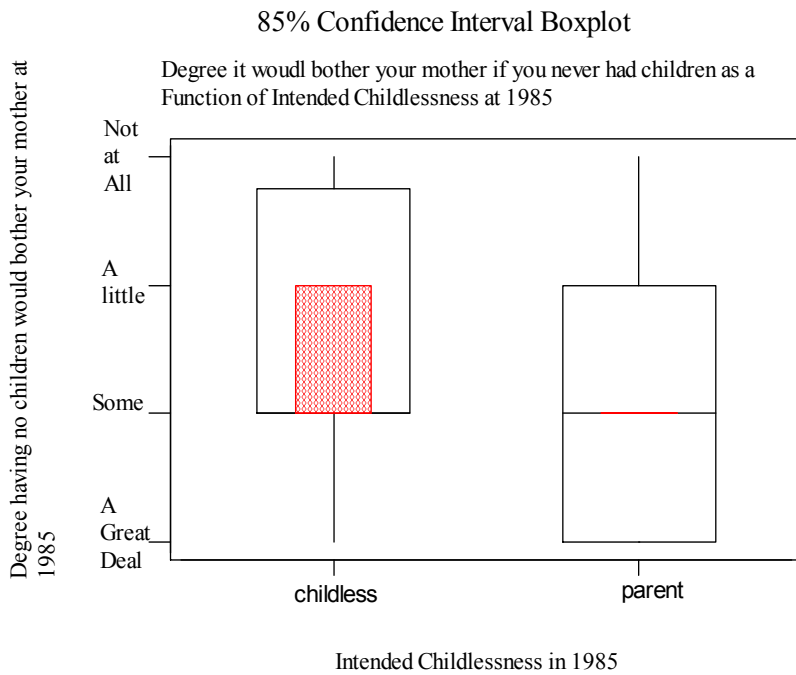


Figure 6: Sex-Role Attitudes in 1980 as a Function of Intended Family Size

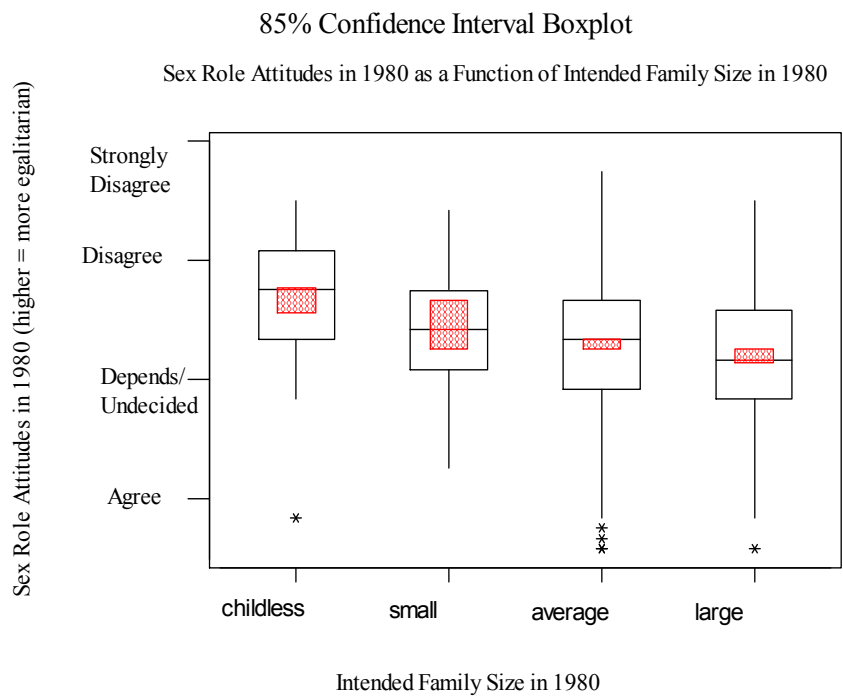


Figure 7: Sex-Role Attitudes in 1980 as a Function of Intended Childlessness

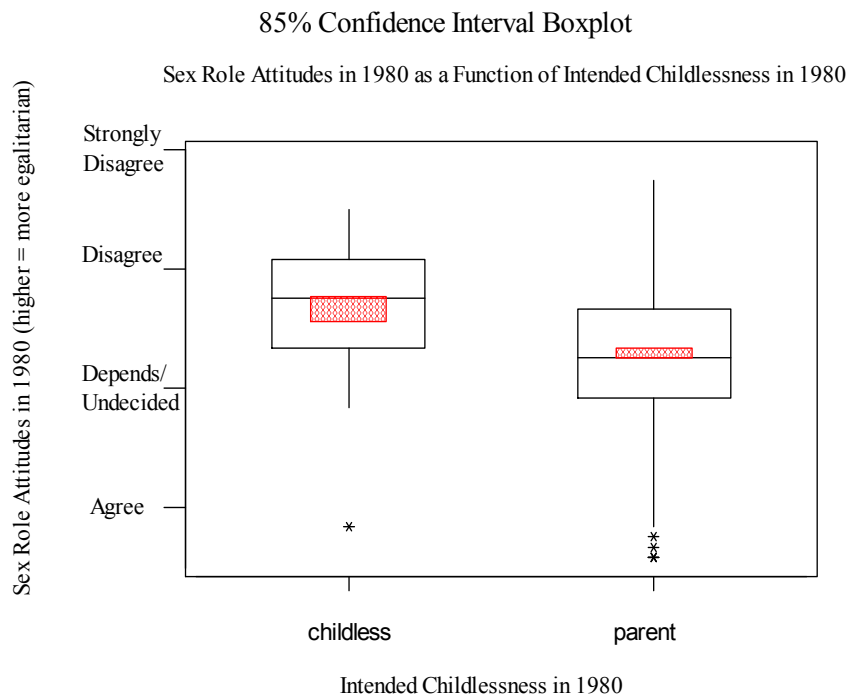


Figure 8: Sex-Role Attitudes in 1985 as a Function of Intended Family Size

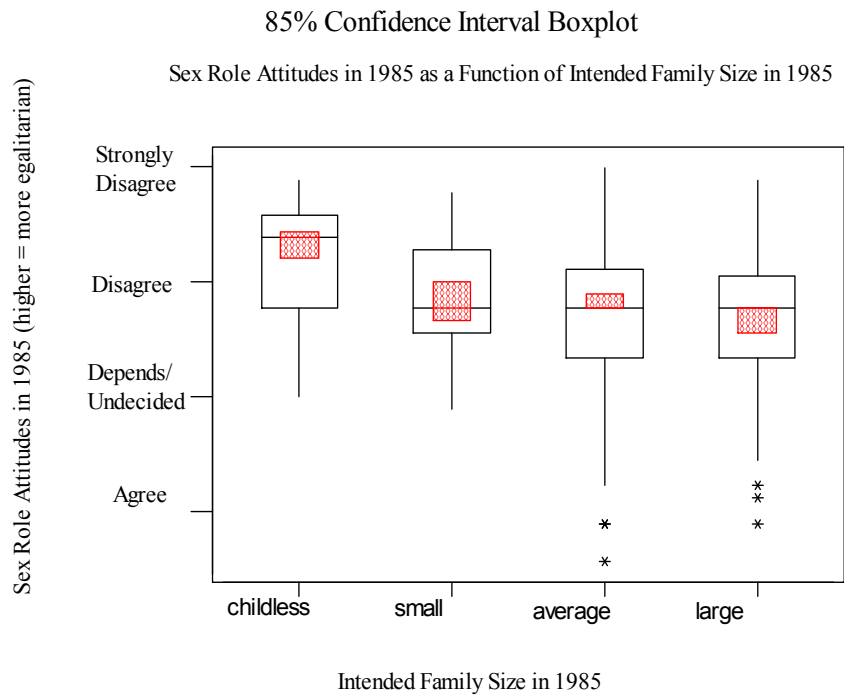


Figure 9: Sex-Role Attitudes in 1985 as a Function of Intended Childlessness

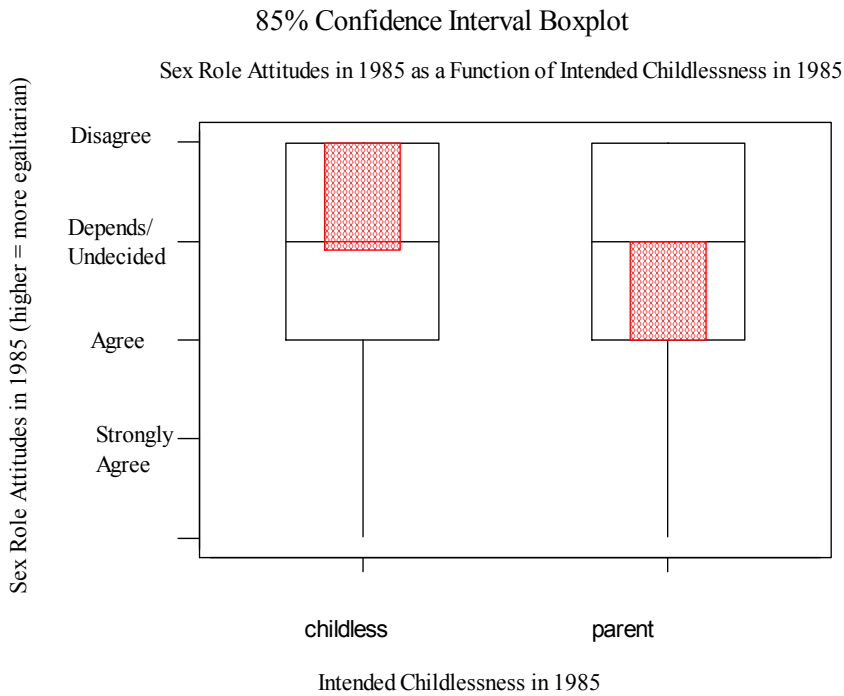


Figure 10: Degree to which Children Cause Parents Worry and Emotional Strain as a Function of Intended Family Size in 1980

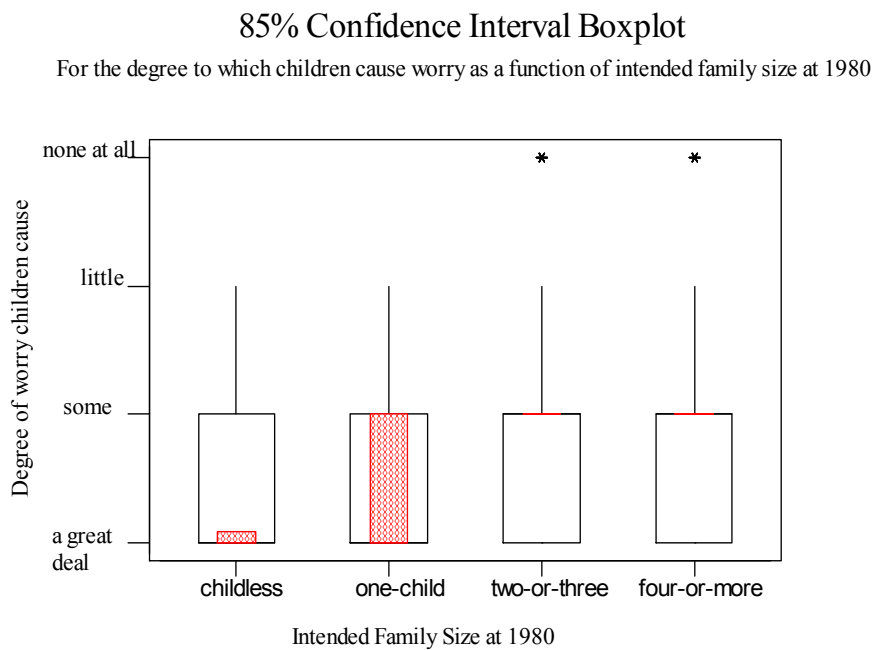


Figure 11: Degree to which Children Cause Parents Worry and Emotional Strain as a Function of Intended Childlessness in 1980

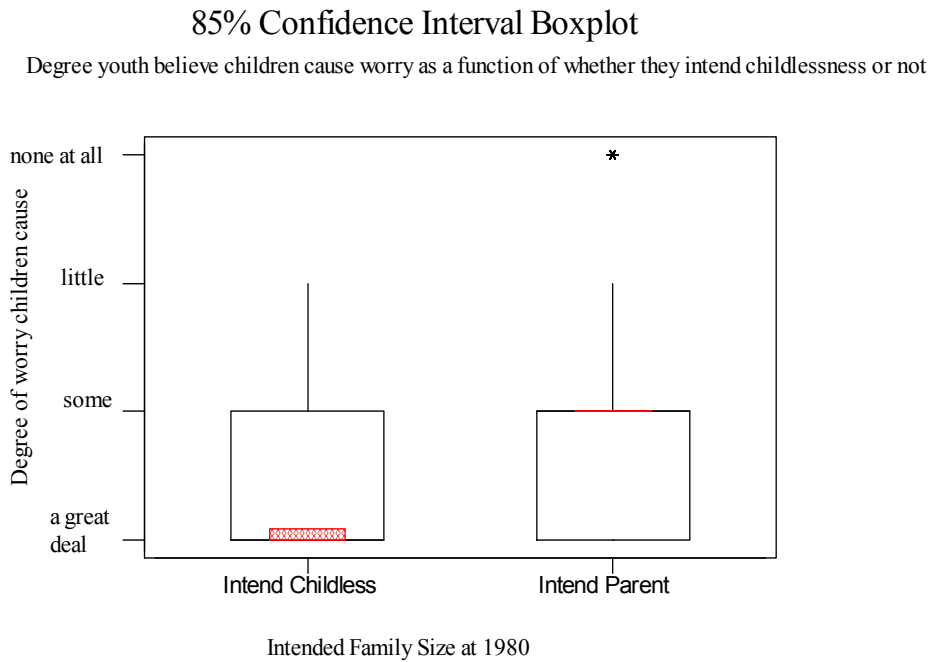


Figure 12: Degree to which Children Cause Parents Worry and Emotional Strain as a Function of Intended Family Size in 1985

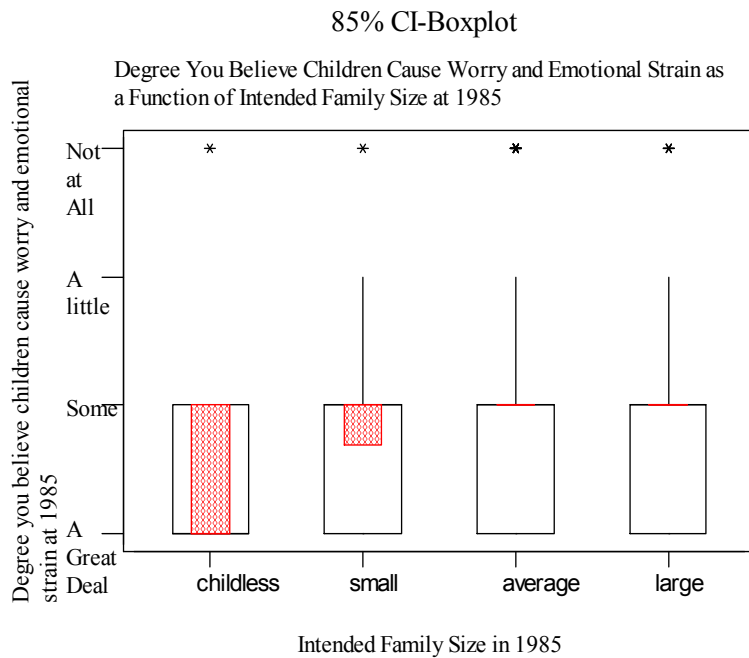


Figure 13: Degree to which Children Cause Parents Worry and Emotional Strain as a Function of Intended Childlessness in 1985

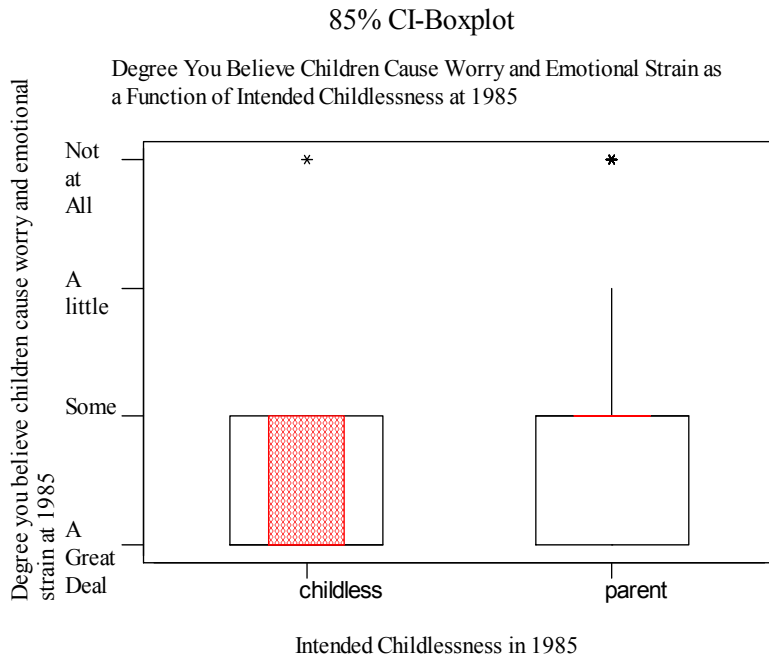


Figure 14: Degree Youth Like to Care for Children as a Function of Intended Family Size

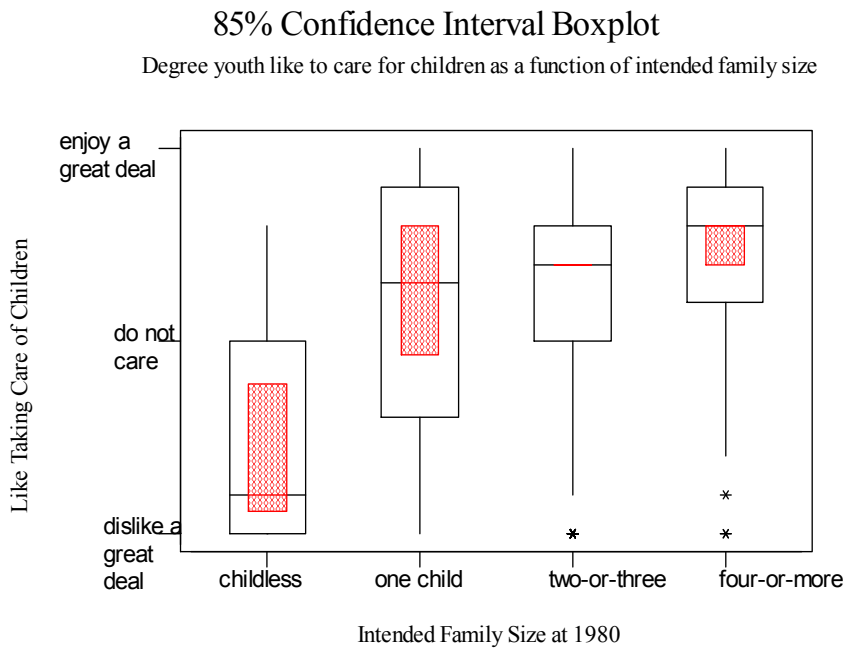


Figure 15: Degree Youth Like to Play with Children as a Function of Intended Family Size

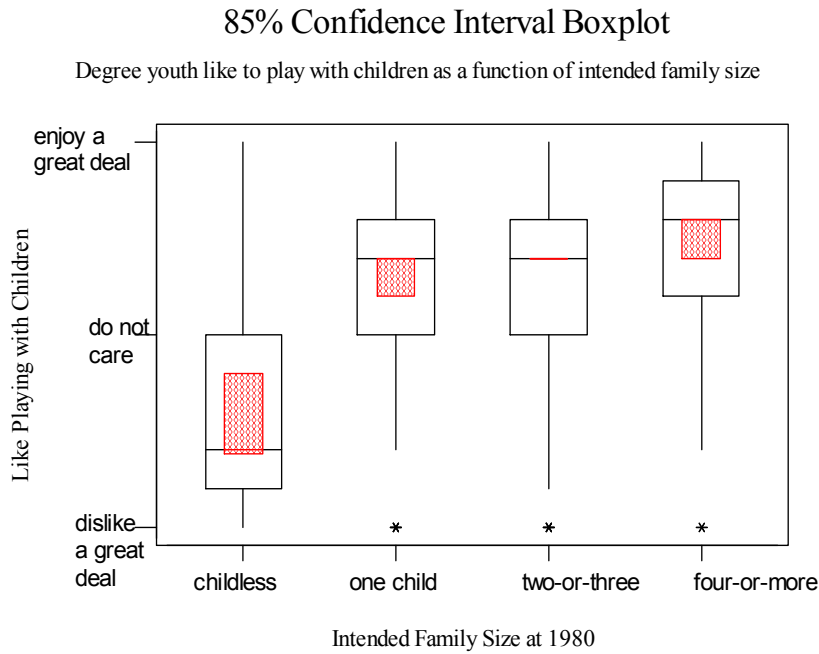


Figure 16: Mean comparisons of individual preferences for youth aged 18 who intend to have no children and youth aged 18 who intend to have children

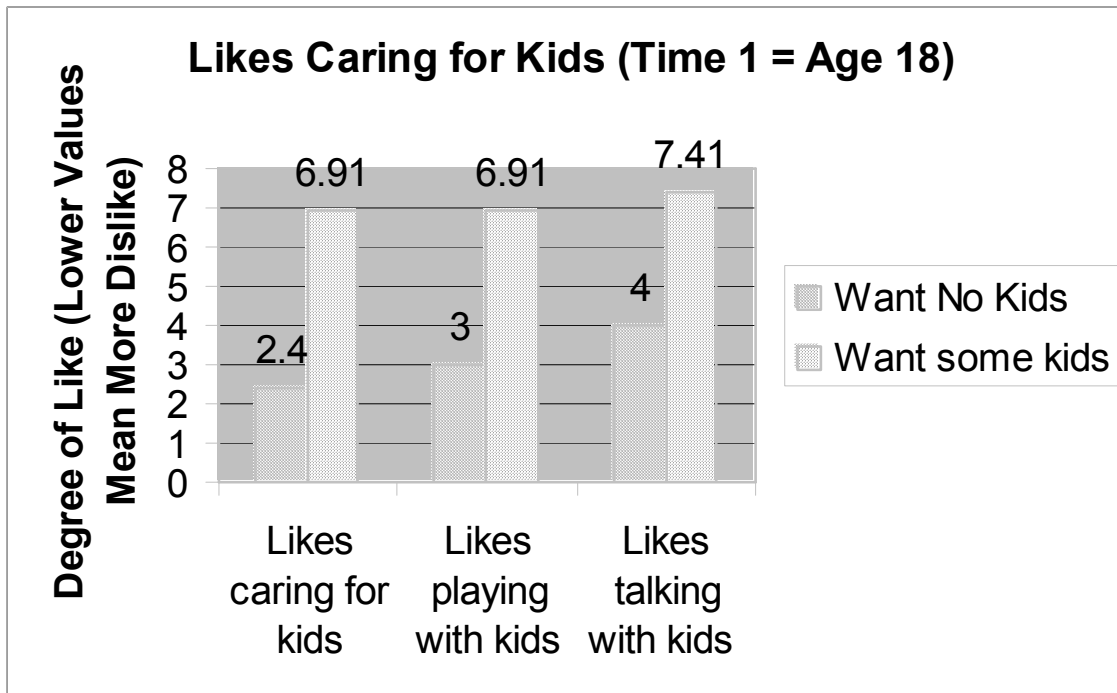


Figure 17: Mean comparisons of marriage certainty for youth aged 18 who intend to have no children and youth aged 18 who intend to have children.

