Altar-Bound? The Effect of Disability on the Hazard of Entry into a First Marriage

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Abstract

Researchers consistently find that the experience of disability in childhood can influence future life trajectories, particularly with regard to economic and educational outcomes. However, relatively little research has been conducted to explore the effect of disability on other dimensions of the transition to adulthood: namely, its effect on family-formation outcomes. This study uses data from waves I and IV of the National Longitudinal Study of Adolescent Health in order to assess the effect of various types of disabilities on the likelihood and timing of entry into a first marriage. Both bivariate and multivariate models show that individuals who have a disabling condition have a lower chance of entry into a first marriage than do individuals who do not have a disability. However, further analysis reveals that not all types of disabilities have the same effect on the chances of marriage—individuals with learning disabilities and those with multiple disabilities are at a significantly lower hazard of entry into a first marriage than are their peers without disabilities.

Disability affects a sizable proportion of children in the United States. While estimates vary, most suggest that approximately 12–18 percent of children experience some type of physical, emotional, or mentally disabling condition (Hogan et al. 1997; Newacheck et al. 1998). Life for these individuals often follows a divergent track as they transition into adulthood: Research consistently suggests that young adults with disabilities are less likely to be gainfully employed, less likely to complete advanced education, and more likely to receive public assistance than their peers without disability (Janus 2009; Wells, Hogan, and Sandefur 2003).

Though a considerable body of research has focused on educational and employment transitions, little has focused upon family-formation transitions among those with disabilities per se. A latent class analysis conducted by Wells, Hogan, and Sandefur (2003) found some evidence that young women with disabilities are more likely than those without disabilities to form families of their own at a relatively young age, while a latent class analysis by Janus (2009) suggests that having a disabling condition makes individuals less likely to be "married with children" compared to being in a dependent class marked by not being in school, being unmarried, and not living independently at the age of twenty-six. While this work suggests that disability plays a role in a host of transitions to adulthood, it does not clearly address the issue of how disability generally, and types of disability in particular, affect the chance of entry into a first marriage nor does it follow individuals for long enough that we can disentangle marriage delayed and marriage forgone. Likewise, another, albeit limited, body of research has found that adults with disabilities are more likely to be single (Nosek et al. 2001; Taleporos and McCabe 2003; U.S. Census Bureau 1997), yet such work also presents only a limited insight into the phenomenon. For example, it is possible that individuals with disabilities marry later than those without disabilities or that they are less

likely ever to marry—cross-sectional, bivariate analysis does not allow us to differentiate between these two distinct outcomes.

This study aims to begin to address these deficits in the literature by exploring whether having a disability influences the likelihood of entry into and timing of first marriage. I make use of data from waves I and IV of the National Longitudinal Study of Adolescent Health (Add Health) to run event history analyses, which allow us to understand the effect of disability on both the timing and likelihood of entry into a first marriage. Further, I compare the effect of different types of disabilities (physical, mental, learning, and multiple disabilities) to assess whether the impact of disability on entry into marriage is dependent upon the type of disability.

Background

Researchers consistently find evidence that marriage offers a number of benefits: improved psychological and physical health, lower rates of risky health behaviors, financial benefits, and higher levels of sexual satisfaction (Waite 1995). Married individuals have lower rates of mortality than the never married, divorced, or widowed (Ross, Mirowsky, and Goldsteen 1990), and, particularly for women, those who are married report significantly better health than do the never married, the widowed, and the divorced (Liu and Umberson 2008). Further, marriage improves mental well-being: Individuals' mental health status improves after they marry and declines after they divorce or are widowed (Marks and Lambert 1998).

In the contemporary United States, the vast majority of individuals, perhaps as many as 90 percent, will marry at some point in their lives (Kreider and Fields 2002). Moreover, most will marry at relatively young ages: More than 80 percent marry before the age of forty (Cherlin 2010), and most of those who do so marry for the first time before age thirty (Raley 2000). Though age at first marriage has increased since the early twentieth century and cohabitation has replaced marriage as the typical "first union" (ibid.), marriage remains normative. In 2008, the average age at first marriage was 27.6 for men and 25.9 for women (U.S. Census Bureau 2010).

That said, marriage rates are not equivalent across all strata of society. For instance, researchers have documented noteworthy differences by race, education, and family background (Bramlett and Mosher 2002; Goldstein and Kenney 2001; Kobrin and Waite 1984; South 2001). Particularly germane to this study is mixed evidence in the literature regarding the effect of health-related conditions on the probability and timing of marriage. Mental-health conditions have been demonstrated to negatively influence entry into marriage. Forthofer et al. (1996) found that the presence of psychiatric disorders is negatively associated with on-time or late marriage. Similarly, recent work by Teitler and Reichman (2008) found that young, unmarried mothers who have mental illness are considerably less likely than their non-mentally ill peers to enter into marriage within five years after the birth of a child.

Though mental-health problems specifically seem to reduce the likelihood of entry into marriage, the effect of general health on entry into marriage is far more complex. Lillard and Panis (1996) found some evidence of adverse health selection into marriage. The adverse selection argument notes that, given the beneficial effects of marriage, individuals in poorer health may have added incentive to seek a spouse. Specifically, Lillard and Panis (1996) found evidence that adverse selection may be at work for men, though they also found evidence of positive selection into marriage based on unmeasured factors that correlate with health. This suggests that any evidence of positive selection into marriage is not due to better health, per se, but, rather, to other factors that promote both health and marriage.

Though it is less well researched, disability, it is reasonable to suspect, might also influence the likelihood and timing of entry into marriage. Several perspectives might lead us to predict that individuals with disabilities will be at a lower chance of entry into a first marriage than will their peers without disability. Though a large percent of individuals, roughly 12–18 percent, have a disability, it is still a largely stigmatized characteristic. For instance, individuals with disabilities are often perceived as asexual (Milligan and Neufeldt 2001; Zola 1982). This perception could clearly serve to limit access to potential intimate partners. Other scholars argue that social isolation may play a role; for example, individuals with physical disabilities might be limited in their ability to enter into social spaces where they might meet potential partners due to physical barriers such as staircases (Shakespeare, Gillespie-Sells, and Davies 1996). Further, we might expect a lower hazard of entry into marriage for those with disabilities if we take a life-course perspective. Entry into marriage is one of many transitions into adulthood. While there is considerable variability, a normative ordering of events can be identified: Individuals typically enter into marriage subsequent to making other transitions—in particular, finishing school and holding a job (Hogan 1978; Marini 1984). Insofar as having a disability might limit or slow one's ability to make these other transitions, we might anticipate a related decrease in the hazard of entry into a first marriage.

A small body of research has investigated the effect of having a disability on marital status directly, though there are noteworthy limitations to this work. For example, a 2001 report by Nosek et al. on the National Study of Women with Physical Disabilities found that 58 percent of the women with physical disabilities in their sample were single compared to 45 percent of women without disabilities. However, this study also found no significant difference by disability status in age at first marriage among those who married, nor did they find evidence that disability severity was associated with the likelihood of marriage. Taleporos and McCabe (2003) found lower rates of marriage among men and women with physical disabilities compared to their peers without disabilities and that among those with disabilities, individuals with more severe disabilities were less likely to be married than those with less severe disabilities. Likewise, a Census Bureau report (1997) based on data from the Survey of Income and Program Participation indicates that individuals with disabilities are more likely to be single than are their peers who do not experience disabling conditions. While this body of research suggests that the presence of a disability may hinder the formation of a marital union, these studies have clear weaknesses that limit our ability to draw such conclusions. All three take a cross-sectional approach, which means that while these findings might indicate that individuals with disabilities are less likely ever to marry, they might also indicate that such individuals marry at later ages or, perhaps, that they marry at similar ages but are less likely to remain married over the course of their lives. The studies of both Nosek at al. (2001) and Taleporos and McCabe (2003) have the additional weakness of utilizing small convenience samples. Further, it is reasonable to suspect that different types of disabilities may have different levels of influence on marital status. The Taleporos and McCabe (2003) study focused only on individuals with physical disabilities, while the Nosek et al. (2001) study focused exclusively on women with physical disabilities. Not all disability conditions are physical in nature, and this study addresses this reality. Physical disabilities, mental disabilities, and learning disabilities may not have the same effect, in terms of magnitude or direction, on the probability and timing of entry into marriage.

The aim of this study, then, is to assess the influence of various kinds of disability on the probability and timing of entry into a first marriage. I distinguish individuals who do not have disabilities from those who have physical, mental, learning, or multiple disabilities. By focusing on the stigmatization of disability, issues of social isolation, or on the life-course perspective, I would expect individuals with visible physical disabilities to experience a

lower hazard of marriage than those without disabilities, all else equal. However, it is also possible that adverse selection would influence this relationship. If adverse selection is strongly at work, we would expect individuals with physical disabilities to be at a higher hazard of marriage than those without disabilities, all else equal. The effects of mental and learning disabilities are equally unknown.

Data and Methods

In order to systematically assess the impact of disability on the formation of marital unions, this study makes use of waves I and IV of the National Longitudinal Study of Adolescent Health (Add Health). Conducted by the University of North Carolina Population Center, this survey has followed a nationally representative sample of adolescents who were between the ages of eleven and nineteen in 1994–95 through the present; wave-IV data were collected in 2008–9 when the respondents were between the ages of twenty-four and thirty-two. All the wave-I adolescents who participated in the in-home interview during that wave were eligible for reinterview in wave IV. Of the 20,745 adolescents about whom in-home data were gathered in wave I, 15,701 were reinterviewed in wave IV (Harris et al, 2009). The data contain a wealth of information on respondent's social and economic characteristics, as well as data on health and well-being, family relationships, and other social relationships. Data collected in wave I allow us to determine the physical, mental, and learning disability status of respondents. In wave IV, the data contain information on all marital relationships, including the date of each marriage. We can thus use this information to assess whether adolescents with various types of disabilities differ from one another and from their peers without disability with regard to their trajectory into marriage. The analyses that follow are limited to respondents who participated in both the wave-I and wave-IV interviews; further, the sample is limited to individuals who have valid in-home and parental questionnaires for wave I. After exclusions for nonresponse and missing items, the final sample size here is 13,204 (all valid respondents, used in full models); descriptive results are limited to 12,482 respondents with valid case weights.

I use piecewise constant models to model entry into a first marriage. This type of model is a modification of the exponential hazard model, but provides considerable flexibility as it assumes that the hazard remains the same within intervals, but may change from interval to interval. In piecewise constant models, time is divided into intervals; here, years since the adolescent's fifteenth birthday. Given J intervals, divided by break points a_0, a_1, a_2 … a_j, where $a_0 = 0$ and $a_j = $, we can express the model for the hazard for individual i as: $\log h_i(t) = _j + x_i$. Time is measured from the date of the individual's fifteenth birthday until entry into a first marriage or censoring. A record is censored at the time of the interview or at age thirty-two for those who do not experience a first marriage.

Event-history models, such as the piecewise constant model, allow us to predict the likelihood that an individual will enter into a marital union in a given time period if he or she was unmarried up to that point. The model allows for right censoring, which means that we can account for the fact that respondents have unequal opportunity to enter into a first marriage—individuals who were age thirty-two at the time of the wave-IV survey have had eight years longer to enter into a first marriage than have those who were age twenty-four. This feature of the model makes it a superior approach to predicting a social phenomenon like entry into first marriage compared to a logistic regression model.

Key measures of disability status are taken from the first wave of Add Health. I distinguish between individuals with physical disabilities, mental disabilities, and learning disabilities. I draw upon the operationalization used by Cheng and Udry (2002) to classify individuals as having physical disabilities. During the inhome portion of the first wave, adolescents and

their parents were asked a series of questions assessing physical disability status: whether the adolescent had difficulties with his/her limbs, used equipment such as a wheelchair or cane, required personal-care assistance, had difficulty walking, standing, holding things, and the like, and about self-perceptions, parent perceptions, and other's perceptions of the adolescent as having a disability. A positive response to any of these items from either the adolescent or the parent of the adolescent resulted in a classification as having a physical disability. In these data, about 4.7 percent of respondents have a physical disability.

I follow the operational definition used by Svetaz, Ireland, and Blum (2000) to measure learning disabilities. Learning disabilities are assessed using two questions from the parent portion of the wave-I in-home questionnaire. In this section, parents were asked two questions: (1) does the adolescent have a specific learning disability, such as difficulties with attention, dyslexia, or some other reading, spelling, writing, or math disability? and (2) did the adolescent receive any type of special education services during the past twelve months? If the parent responded "yes" to both questions, the respondent was coded as having a learning disability. In these data, 5.9 percent of individuals are classified here as having a learning disability.

To assess the presence of mental disabilities, I draw upon a single question contained in the parental questionnaire administered during wave I. Here, the parent of the adolescent was asked whether the adolescent was "mentally retarded." A response of "yes" results in the individual being coded as having a mental disability. A very small proportion (0.15 percent) of individuals are identified as having a mental disability—a number considerably below national estimates, and a number likely too small to be of much use in statistical analysis. An alternative specification of the variable made use of the approach used by Cheng and Udry (2003). Using the Peabody Vocabulary Test as administered in wave I, any individual who scored more than two standard deviations below the mean was considered to have a mental disability However, bivariate analysis suggests the likelihood that this operationalization is not assessing mental disability, per se, and is instead assessing familiarity with and usage of the English language. Thus, this later operationalization was rejected in favor of the more conservative classification based solely on assessments of mental retardation.

Finally, approximately 1.5 percent of individuals can be classified as having more than one type of disability. Those individuals are thus classed as having multiple disabilities. In this study, some models compare those with disabilities to those without disabilities, while others compare those without disabilities to those with either mental, physical, learning, or multiple disabilities. For the broad comparison, individuals are categorized as either having a disability or not having a disability where the presence of any of the types of disability delineated above results in a classification as "having a disability."

The outcome of interest is timing to first marriage. This variable is constructed from data collected in the wave-IV survey. I constructed this variable from a series of questions asking about the respondent's relationship history. I create a censoring variable based on the answer to the question "How many people have you ever married?" Those who responded "0" are coded as having never experienced the outcome of interest: first marriage. For those who responded that they had married one or more persons, I looked to a series of indicators taken from the relationship history file. Among others, these questions ask about each relationship: the type of relationship as well as its start date. For all respondents who were married at least once, I locate the date of the earliest marital relationship, which serves as the date at which the individual leaves the risk set by experiencing the outcome of interest. As discussed above, time to first marriage is measured from the respondent's fifteenth birthday until the individual is married for the first time or is censored. A few cases were excluded

because they reported a first marriage taking place at an age younger than fifteen or because they reported having married at least once but did not provide information about when that marriage took place.

In order to determine the effect of disability status on the timing of first marriage, we need to control for factors that are known to influence the likelihood of marriage, many of which are also correlated with disability status. Controls include basic sociodemographics: race, sex, and educational attainment. I also include controls for religiosity and nativity as well as for parents' education and for whether the respondent lived with both parents during the wave-I interview. Race compares non-Hispanic blacks, Hispanics regardless of race, and members of other racial groups to non-Hispanic whites. Sex compares females to males. Educational attainment compares those with less than a high school diploma, those with some college education, and those with a college degree or more to those with a high school diploma and is measured in wave IV. Religiosity serves as a background characteristic and is a scalar measure taken from three questions measured in wave I that ask about religious importance, frequency of religious service attendance, and frequency of church-related youth-group activities. Nativity compares the foreign born to those born in the United States. Parents' education follows the same categories as own education. Childhood family structure compares those who were living with a mother and a father at the time of the wave-I interview to those living in any other family structure.

Findings

Table 1 presents information about the characteristics of the individuals in the sample, noting dimensions where the sample of individuals with disabilities differs from those without disabilities. Approximately 12.3 percent of individuals are identified as having some sort of disability condition—an estimate that is in line with findings from previous research. Learning disabilities are the most prevalent type of disability, affecting almost 6 percent of individuals, followed by physical disabilities, which affect nearly 5 percent of the sample. A much smaller proportion of individuals are identified as having a mental disability (0.15 percent) or as having multiple disabilities (1.8 percent). General demographic characteristics of the sample as a whole are as would be expected: Approximately half the sample is male, the majority are white, most are native born. Slightly more than half the sample comes from intact homes. About a third of the sample has a high school diploma or less, a third some college, and a third a college degree or more. With regard to parental education (usually maternal education), 16 percent report less than a high school education, almost 43 percent report a high school diploma, and about 20 percent each report having some college education or a college degree or more. Finally, we see that about 49 percent of individuals in the sample have married at least once by the time that the wave-IV data were collected.

The data also indicate that, in several ways, individuals with disabilities differ from those without disability and that individuals with certain types of disabilities differ from those with other types of disabilities. For example, a noteworthy difference appears due to gender: Nearly 70 percent of individuals with learning disabilities are male, compared to about 50 percent for all other categories of disability status. It seems likely that the disproportionate number of individuals with learning disabilities who are male is the result of unequal diagnosis or labeling, rather than the result of actual differences in the likelihood of experiencing learning disabilities.

Noteworthy differences are also present by racial and ethnic groups. A much larger percentage of individuals with multiple disabilities are nonwhite. We also see differences in the structure of individuals' families of origin. A majority of individuals with disabilities, regardless of type, lived in a nonintact family at the time of the wave-I interview. In

comparison, only 43 percent of individuals without disability were living in nonintact families at the same time. This corresponds to a consistent finding in the literature: Children with disabilities destabilize marriages (Joesch and Smith 1997; Mauldon 1992).

We also see differences in parental educational attainment by disability status. While individuals with physical disabilities and those without disabilities look similar in this regard, those with learning and multiple disabilities are more likely to have less educated parents. Not surprisingly, disability also has an effect on one's own educational attainment. While 33 percent of those without disability achieved a college degree or more, only 24 percent of those with physical disabilities, 6 percent of those with learning disabilities, and 4 percent of those with multiple disabilities achieved such a degree. Conversely, a larger proportion of individuals with learning, mental, and multiple disabilities left school without achieving a high school diploma than did those with physical disabilities or those without disability.

Most significant for this study, we see some noteworthy differences in the likelihood of having married by wave IV across disability strata. Nearly half the individuals who do not have disabilities reported that they had married at least once by the date of the wave-IV interview. In comparison, about 43 percent of individuals with learning disabilities and 37 percent of those with mental disabilities reported having experienced a first marriage, while only 21 percent of those with multiple disabilities had been married. These data suggest that disability may suppress transitions to a first marriage. However, when we look at individuals with physical disabilities, we see that 53 percent report having experienced a first marriage. Thus, it seems that the effect of disability status on the likelihood of marriage is not equal across different types of disability.

These bivariate findings suggest that disability status does play a role in entry into first marriage. As a whole, disabilities seem to suppress entry into a first marriage. However, it also seems that type of disability matters: Individuals with physical disabilities resemble their peers without disability with regard to their entry into first marriage, while those with mental and learning disabilities seem to be at a slight disadvantage, and those with multiple disabilities seem much less likely to enter into first marriages. However, these findings are based only on bivariate relationships. As noted, a number of other personal and familial characteristics influence the probability/timing of entry into first marriage and are correlated with disability status. Thus, multivariate event history analysis is necessary to better assess the effect of disability on entry into marriage.

Table 2 presents a full piecewise constant model predicting time to first marriage, comparing those with and without disabling conditions. The coefficients presented in the table are hazard ratios (HR), which are interpreted like odds ratios commonly used in logistic regression. Hazard ratios with a value higher than 1 indicate that the independent variable increases the hazard of entry into a first marriage, those with values below 1 decrease the hazard. In this model, we see that individuals who have a disabling condition are at a lower hazard of entry into a first marriage than their peers without disability, all else equal. Specifically, we see that individuals who have a disability are at a 14 percent lower hazard of entry into a first marriage than those without disabilities.

This model clearly indicates that disability has a negative effect on the probability and timing of entry into a first marriage. Yet the bivariate results suggest that the effect of disability is not monolithic—that different types of disability may have differential effects on the hazard of a first marriage. Table 3 presents a similar model that aims to distinguish the effect of different types of disabilities on the hazard of entry into a first marriage, comparing those with physical disabilities, those with learning disabilities, those with mental

disabilities, and those with multiple types of disabilities to individuals who do not have a disability. Here we see that individuals with physical disabilities and individuals with mental disabilities are not statistically different from those without disabilities. However, individuals with learning disabilities are at a lower hazard of entry into first marriage, while those with multiple disabilities are at a much lower hazard. Individuals with learning disabilities are at a 16 percent lower hazard than are those without disabilities. Individuals with multiple disabilities are at a 49 percent lower hazard of entry into a first marriage than are their peers without disability.

The covariates in both models behave largely as one would expect given the literature. Women have a higher hazard for entry into a first marriage than do men, which is not surprising, given that the average age at first marriage for women is several years younger than is the corresponding age for men. Nonwhite individuals are at a lower hazard of marriage than are whites. More religious individuals experience a higher hazard of first marriage. Individuals with highly educated parents experience a lower hazard. One's own education also influences the hazard of a first marriage—those with very low levels of education and those with high levels of education have a lower hazard of first marriage than do those with only high school diploma.

Discussion

Research has found that individuals with disabilities often experience very different transitions into adulthood than do their peers who do not have disabilities:Because they achieve lower levels of education, they are less likely to hold stable employment and more likely to receive public assistance (Janus 2009; Wells, Hogan, and Sandefur 2003). Yet, despite this clear evidence that disability can influence individuals over their life course, there has been a relative deficit in research that explores the effect of disability on other, family-related transitions into adulthood. This study aimed to explore the effect of disability status on a significant transition into adulthood: the probability and timing of entry into a first marriage. Using event-history techniques, I found that individuals with disabilities are at a lower hazard of first marriage than are those individuals without disabilities. Further analysis, which explored the significance of different types of disabilities, found that not all disabilities have the same effect on the likelihood and timing of entry into marriage. Specifically, individuals with learning disabilities or multiple disabilities are at a lower hazard of entering into a first marriage than are other individuals.

This study did not find evidence that individuals with mental or physical disabilities differ from those without disabilities regarding their hazard of first marriage. These findings may seem surprising and merit some further discussion. The measurement of mental disabilities may be less than ideal. The concept of "mental disability" was measured by looking at parental reports of mental retardation. A few individuals were thus identified as having a mental disability. This measure, coupled with a concrete comparison of mental aptitude, such as the result of an IQ test, might result in a better measure. However, the only test-based indicator available in the data is the score for each adolescent in the Peabody Picture Vocabulary Test (PPVT). The PPVT was designed to serve as a measure of verbal intelligence and has been used in other studies (see Cheng and Udry 2003) to measure mental disability. However, bivariate analysis indicated that this measure served more to assess competence with the English language than mental disability and had no effect in the models. Thus, this indicator was eliminated in favor of the one used here. It seems likely, then, that the apparent lack of effect that mental disabilities have on entry into marriage may be the result of having too few cases rather than signifying that there is no effect.

This study also found that individuals with physical disabilities do not differ significantly from individuals without disabilities regarding the timing or likelihood of marriage. In fact, at the bivariate level, we see a slightly higher proportion of individuals with physical disabilities than without disabilities reporting at least one marriage. It is possible that this finding is the result of adverse selection. Lillard and Panis (1996) found evidence of adverse selection into marriage by self-reported health. It is possible that individuals with physical disabilities see more to be gained through marriage than those without disabilities—health benefits, assistance with physically challenging tasks, and the like—and as such are more motivated to seek out marriage partners. Alternatively, this finding could simply be an artifact of the relatively liberal definition of physical disability used in this study. However, alternative specifications of the analysis that used a more restrictive definition of physical disability (requiring that an individual have three or more physical disability indicators rather than requiring only one indicator) did not result in significantly different findings.

While this study provides the most thorough exploration of the effect of disability on a particular dimension of the transition to adulthood, it has weaknesses that must be acknowledged. First, these analyses utilize wave IV of Add Health: data collected when the respondents were between twenty-four and thirty-two. Given that the mean age at marriage for the U.S. population generally is about twenty-six to twenty-seven, it is possible—even likely—that many of the individuals who had not married by wave IV will do so in the future. While this analysis indicates that individuals with multiple disabilities and, to a lesser extent, those with learning disabilities are at a lower hazard of entry into first marriage, it is possible that their likelihood of ever being married will differ less dramatically. That is, these individuals might still marry later in life—perhaps by age forty, we would see a less dramatic effect. In order to determine the effect of disability on the likelihood of ever getting married, we would need data that follow individuals for a longer period of time.

While future research is necessary to clarify these issues, the fact remains that individuals with disabilities often follow a notably different path to adulthood than do individuals without disabilities. In this study, individuals with learning disabilities are at a lower hazard of entering into a first marriage, while those with multiple disabilities are at a considerably lower hazard than are individuals who do not have a disability. This finding, coupled with earlier research findings that emphasize the profound effect disability can have on the economic well-being of individuals with disabilities as they enter into adulthood, paint a less than ideal picture of the effect of disability on young adults' well-being.

Acknowledgments

References

Bramlett MD, Mosher WD. Cohabitation, Marriage, Divorce, and Remarriage in the United States. Vital Health Statistics. 2002 Jul; 23(no. 22):1–93. Available at www.cdc.gov/nchs/data/series/sr_23/sr23_022.pdf.

Cheng MM, Udry JR. Sexual Behaviors of Physically Disabled Adolescents in the United States. Journal of Adolescent Health. 2002; 31:48–58. [PubMed: 12090965]

Cheng MM, Udry JR. How Much Do Mentally Disabled Adolescents Know About Sex and Birth Control? Adolescent and Family Health. 2003; 3:28–38.

Cherlin A. Demographic Trends in the United States: A Review of Research in the 2000s. Journal of Marriage and Family. 2010; 72:403–419. [PubMed: 22399825]

Forthofer M, Kessler R, Story A, Gotlib I. The Effect of Psychiatric Disorders on the Probability and Timing of First Marriage. Journal of Health and Social Behavior. 1996; 37:121–132. [PubMed: 8690874]

Goffman, M. Stigma: Notes on the Management of a Spoiled Identity. Englewood Cliffs, NJ: Prentice Hall; 1963.

Goldstein JR, Kenney CT. Marriage Delayed or Marriage Forgone? New Cohort Forecasts of First Marriage for U.S. Women. American Sociological Review. 2001; 66:506–519.

Harris, KM.; Halpern, CT.; Whitsel, E.; Hussey, J.; Tabor, J.; Entzel, P.; Udry, JR. The National Longitudinal Study of Adolescent Health: Research Design. 2009. Available at www.cpc.unc.edu/projects/addhealth/design/.

Hogan DP. The Variable Order of Events in the Life Course. American Sociological Review. 1978; 43:573–586.

Hogan DP, Msall ME, Rogers ML, Avery RC. Improved Disability Population Estimates of Functional Limitation Among American Children Age 5–17. Maternal and Child Health Journal. 1997; 1:203–216. [PubMed: 10728246]

Janus AL. Disability and the Transition to Adulthood. Social Forces. 2009; 88(no. 1):99–120.

Joesch JM, Smith KR. Children's Health and Their Mother's Risk of Divorce or Separation. Social Biology. 1997; 44:159–169. [PubMed: 9446957]

Kobrin F, Waite L. Effects of Childhood Family Structure on the Transition to Marriage. Journal of Marriage and Family. 1984; 46:807–816.

Kreider, R.; Fields, J. Current Population Reports. Washington, DC: U.S. Census Bureau; 2002. Number, Timing, and Duration of Marriages and Divorces: 1996; p. 70-80.

Lillard LA, Panis CW. Marital Status and Mortality: The Role of Health. Demography. 1996 Aug; 33(no. 3):313–327. [PubMed: 8875065]

Liu H, Umberson DJ. The Times They Are a Changin': Marital Status and Health Differentials from 1972 to 2003. Journal of Health and Social Behavior. 2008 Sep; 49(no. 3):239–253. [PubMed: 18771061]

Marks N, Lambert J. Marital Status Continuity and Changes among Young and Middlelife Adults: Longitudinal Effects on Psychological Well-Being. Journal of Family Issues. 1998; 19:652–686.

Marini MM. The Order of Events in the Transition to Adulthood. Sociology of Education. 1984; 57:63–84.

Mauldon J. Children's Risks of Experiencing Divorce and Remarriage: Do Disabled Children Destabilize Marriages? Population Studies. 1992; 46:349–362.

Milligan MS, Neufeldt AH. The Myth of Asexuality: A Survey of Social and Empirical Evidence. Sexuality and Disability. 2001; 19(no. 2):91–109.

Newacheck PW, Strickland B, Shonkoff JP, Perrin JM, McPherson M, McManus M, Lauver C, Fox H, Aranfo P. An Epidemiologic Profile of Children with Special Health Care Needs. Pediatrics. 1998; 102:117–124. [PubMed: 9651423]

Nosek MA, Howland C, Rintala DH, Young ME, Chanpong GF. National Study of Women with Physical Disabilities: Final Report. Sexuality and Disability. 2001; 19(no. 1):5–40.

Raley, RK. Recent Trends and Differentials in Marriage and Cohabitation: The United States. In: Waite, L., editor. The Ties That Bind: Perspectives on Marriage and Cohabitation. New York: Walter De Gruyter; 2000. p. 19-38.

Ross C, Mirowsky J, Goldsteen K. The Impact of Family on Health: Decade in Review. Journal of Marriage and Family. 1990 Nov.52:1059–1078.

Shakespeare, T.; Gillespie-Sells, K.; Davies, D. The Sexual Politics of Disability: Untold Desires. London: Cassell; 1996.

South SJ. The Variable Effects of Family Background on the Timing of First Marriage: United States, 1969–1993. Social Science Research. 2001; 30:606–626.

Svetaz MV, Ireland M, Blum R. Adolescents with Learning Disabilities: Risk and Protective Factors Associated with Emotional Well-Being: Findings from the National Longitudinal Study of Adolescent Health. Journal of Adolescent Health. 2000; 27(no. 5):340–348. [PubMed: 11044706]

Taleporos G, McCabe MP. Relationships, Sexuality and Adjustment Among People with Physical Disability. Sexual and Relationship Therapy. 2003; 18(no. 1):25–43.

Teitler JO, Reichman NE. Mental Illness as a Barrier to Marriage Among Unwed Mothers. Journal of Marriage and Family. 2008 Aug.70:772–782.

U.S. Census Bureau. [accessed October 8, 2010] Americans with Disabilities: 1997. 1997. Available at www.census.gov/hhes/www/disability/sipp/disab97/ds97t3.html

U.S. Census Bureau. [accessed November 1, 2010] Families and Living Arrangements, Table MS-2: 2008. 2010. Available at www.census.gov/population/www/socdemo/hh-fam.html

Waite LJ. Does Marriage Matter? Demography. 1995; 32(no. 4):483–503. [PubMed: 8925942]

Wells T, Hogan D, Sandefur G. What Happens After the High School Years for Young Persons with Disability? Social Forces. 2003; 82(no. 2):803–832.

Zola, IK. Missing Pieces. Philadelphia: Temple University Press; 1982.

Table 1

Characteristics of Respondents: Descriptive Statistics

	Physical disabilities	Learning disabilities	Mental disabilities[c]	Multiple disabilities	No disability	Total
Sex * (%)						
Male	48.17	69.49	58.90	52.86	49.46	50.85
Female	51.83	30.51	41.10	47.14	50.54	49.35
Race * (%)						
White	75.75	72.33	78.74	55.53	68.93	69.26
Black	12.06	15.77	9.18	28.56	14.92	15.03
Hispanic	7.56	10.83	11.86	13.79	11.61	11.41
Other race	4.63	1.07	0.22	2.12	4.54	4.30
Nativity * (%)						
Native born	97.85	98.16	99.74	96.85	95.04	95.39
Foreign born	2.15	1.84	0.26	3.15	4.96	4.61
Childhood family structure * (%)						
Intact	46.41	45.70	31.08	37.69	57.44	55.89
Not intact	53.59	54.30	68.92	62.04	42.55	44.11
Religiosity *a	7.35	7.19	7.13	6.87	7.84	7.77
Educational attainment[b] (%)						
Less than a high school diploma	11.10	23.25	19.59	20.20	7.76	9.04
High school diploma	25.93	44.28	27.58	56.63	24.56	26.29
Some college	39.11	26.25	21.48	19.55	34.25	33.76
College graduate	23.86	6.22	31.35	3.62	33.43	30.91
Parent's education * (%)						
Less than a high school diploma	14.27	20.34	35.03	34.97	15.14	15.75
High school diploma	40.13	50.56	25.35	42.82	43.96	44.11
Some college	19.53	17.27	8.27	14.44	18.39	18.30
College graduate	26.07	11.83	31.35	7.77	22.51	21.84
Married at least once *b (%)	53.16	42.73	36.96	20.56	49.86	49.12

	Physical disabilities	Learning disabilities	Mental disabilities[c]	Multiple disabilities	No disability	Total
Sample *n*	659	619	24	108	11,072	12,482
Total population count	883,751	1,103,322	28,799	289,400	16,446,180	18,751,451

Notes: Descriptive data are weighted and include adjustments for survey design. Significance from χ^2 test of difference or ANOVA test across strata by disability status.

[a]Religiosity scale ranges from 3 to 15; mean is presented here.

[b]Measured in wave IV; all other variables measured in wave I.

[c]Caution should be used in interpreting the results for those with mental disabilities given the small *n*.

*Significant difference across categories of disability at $p < 0.05$.

Table 2

Hazard Ratios: Time to First Marriage by Disability Status

	Hazard ratio	Standard error
Disability status		
No disability	—	—
Any disability	0.86***	0.04
Sex		
Male	—	—
Female	1.43***	0.02
Race		
White	—	—
Black	0.38***	0.04
Hispanic	0.74***	0.04
Other race	0.56***	0.05
Nativity		
Foreign born	—	—
Native born	0.86**	0.05
Childhood family structure		
Not intact	—	—
Intact	1.01	0.02
Religiosity	1.06***	0.00
Educational attainment		
Less than a high school diploma	0.83***	0.05
High school diploma	—	—
Some college	0.94*	0.03
College graduate	0.72***	0.03
Parents' education		
Less than a high school diploma	1.06	0.04
High school diploma	—	
Some college	0.96	0.03
College graduate	0.83***	0.03
Time since age fifteen		
Year 2	2.67**	0.34
Year 3	11.08***	0.30
Year 4	36.05***	0.29
Year 5	47.41***	0.29
Year 6	58.11***	0.29
Year 7	66.43***	0.29
Year 8	84.62***	0.29

	Hazard ratio	Standard error
Year 9	99.31 ***	0.29
Year 10	102.05 ***	0.29
Year 11	112.02 ***	0.29
Year 12	113.08 ***	0.29
Year 13	116.52 ***	0.29
Year 14	122.69 ***	0.29
Year 15	123.08 ***	0.30
Year 16	109.20 ***	0.30
Year 17	118.18 ***	0.34
Year 18	87.66 ***	0.65
Intercept	0.00 ***	0.30

*
$p < 0.05$;

**
$p < 0.01$;

***
$p < 0.001$.

Table 3

Hazard Ratios: Time to First Marriage by Type of Disability

	Hazard ratio	Standard error
Disability status		
No disability	—	—
Physical disability	0.99	0.05
Learning disability	0.84[**]	0.06
Mental disability	0.74	0.30
Multiple disabilities	0.51[***]	0.17
Sex		
Male	—	—
Female	1.45[***]	0.03
Race		
White	—	—
Black	0.37[***]	0.04
Hispanic	0.74[***]	0.04
Other race	0.58[***]	0.06
Nativity		
Foreign born	—	—
Native born	0.87[**]	0.05
Childhood family structure		
Not intact	—	—
Intact	1.00	0.03
Religiosity	1.06[***]	0.00
Educational attainment		
Less than a high school diploma	0.83[**]	0.05
High school diploma	—	—
Some college	0.94[*]	0.03
College graduate	0.72[***]	0.04
Parents' education		
Less than a high school diploma	1.07	0.04
High school diploma	—	—
Some college	0.97	0.03
College graduate	0.83[***]	0.03
Time since age fifteen		
Year 2	3.00[**]	0.41
Year 3	13.08[***]	0.37
Year 4	46.41[***]	0.36
Year 5	61.48[***]	0.36

	Hazard ratio	Standard error
Year 6	75.41***	0.36
Year 7	86.93***	0.36
Year 8	109.03***	0.36
Year 9	132.38***	0.36
Year 10	130.95***	0.36
Year 11	147.29***	0.36
Year 12	147.41***	0.36
Year 13	152.32***	0.36
Year 14	161.48***	0.36
Year 15	156.55***	0.36
Year 16	137.81***	0.37
Year 17	168.54***	0.41
Year 18	120.61***	0.79
Intercept	0.00***	0.36

*
$p < 0.05$;

**
$p < 0.01$;

***
$p < 0.001$.