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ASSESSING GILLIGAN VS. SOMMERS:
GENDER-SPECIFIC TRENDS IN CHILD AND YOUTH
WELL-BEING IN THE UNITED STATES, 1985–2001

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ABSTRACT. The question of whether boys or girls (and young males and females) have been doing better in terms of their well-being in the United States has been a point of sometimes rancorous debate among feminist and other scholars in recent decades. But surprisingly little systematic empirical inquiry has been devoted to this question. The present study addresses this general question and a number of related questions by application of a recently developed index of child and youth well-being to study trends in well-being. Specifically, sex-specific trends in 28 national-level time series social indicators in seven quality-of-life domains – material well-being, social relationships (with family and peers), health, safety/behavioral concerns, productive activity (educational attainments), place in community (participation in schooling or work), and emotional/spiritual well-being – are reviewed. These indicators are indexed by percentage change from a base year, 1985. Subsequent annual observations through the year 2001 are calculated as a percentage of the base year values. Domain specific summary indices as well as a summary overall well-being index are computed. The results are mixed – they show that for both boys and girls, some of the seven domains of well-being have improved since 1985, while others have deteriorated. Since 1995, overall well-being indices for boys and girls have shown significant improvement and 2001 levels were well above 1985 baseline figures. A direct comparison of male and female well-being reveals that the absolute level of gender differences in the summary well-being index decreased in the late 1980s, increased through the mid-1990s, peaked in 1997, and declined thereafter. It is concluded that gender differences in well-being, when they do exist, are very slight and that overall, both boys and girls in the United States currently enjoy a higher quality of life than they did in 1985. The findings are discussed in relation to recent debates in feminist literature.

KEY WORDS: child well-being, indices, gender

Recent works on social indicators have studied the question of whether the well-being of America's children and youths is improving or deteriorating (Moore, 1999; Land et al., 2001). An often-neglected area of this research is the impact of gender on the well-being of youth and children. Do boys and girls substantially differ in quality of life? And have trends in well-being in recent years favored one sex more than the other? A large group of researchers, many of them aligned with a femi-

nist tradition, suggest that girls' well-being is consistently impeded by the patriarchal society that operates in the United States. These authors, Carol Gilligan (1982, 1993) being one of the most prominent among them, point to educational performance and attainment differences, where girls are disadvantaged, resulting in significantly lower self-esteem than their male counterparts. More recently, Christina Hoff Sommers (2000) has argued that it is not girls, but boys, who are disadvantaged, especially in the education system. While this debate may rage on independently, we propose that the true status of male and female child well-being must be determined by examining empirical data.

Using a child well-being index created by Land et al. (2001), this paper examines gender differences in well-being. We seek to determine whether, on average, one gender is faring substantially better than the other in a number of social spheres. The index utilized here contains numerous specific indicators that fall into seven domains of life: material well-being, social relationships (with family and peers), health, safety/behavioral concerns, productive activity (educational attainment), place in community (participation in schooling or work institutions), and emotional/spiritual well-being.

THE DEBATE ON GENDER ADVANTAGE

Gilligan (1982, 1993) argued that girls are at a disadvantage in American society because of prevailing patriarchal values. Action, goal-oriented behavior, and above all, individualized success, are attributes American society traditionally has given to males. Females on the other hand, are expected to value relationships and commitments to others. It seems that individualized achievement is not "supposed" to be important to females. Further, female's voices are silenced as adolescents. Girls are "over-looked" in the education system due to this silencing and, thus, self-esteem and self-assurance suffer. As a result, Gilligan suggests that girls, especially in the education system, perform worse than males.

Others feminists and feminist organizations have reported evidence to support Gilligan's thesis. One study commissioned by the American Association of University Women (AAUW)

(1992), *How Schools Shortchange Girls*, declared a direct and causal relationship between girls' second-class status in the educational system and their low levels of self-esteem. Among the many pieces of evidence they note are:

- Girls receive significantly less attention from classroom teachers as boys.
- Sexual harassment of girls by boys in our nation's schools is increasing.
- The gender gap in science is not decreasing, and may in fact be increasing.
- Adolescent girls attempt suicide four to five times more often as boys (although boys chose more lethal methods and are more likely to succeed).

These deficits create what Myra and David Sadker (1994) call "the self-esteem slide" that begins in elementary school and continues through advanced schooling. The girls who believe they are not only physically disadvantaged as compared to boys, but also academically hindered, especially in areas like math and science, are most likely to slide to the bottom of educational system. To make matters worse, their beliefs are often reinforced through interactions with teachers and peers. If accurate, this is indeed a grim diagnosis for the fate of girls.

In *The War Against Boys*, Sommers (2000) argues, on the contrary, that it is not girls, but boys who are disadvantaged in the educational system. Sommers indicts the AAUW for not only ignoring boys' problems, but also dismissing them. Further, Sommers points to numerous statistical findings that support her claim that males are in fact falling behind females in school:

- According to the National Center for Education Statistics (1998), slightly more female than male students enroll in high-level math and science courses.
- Girls are more academically engaged than boys: the National Center for Education Statistics (1994) reports that by the 12th grade, males are four times more likely than females NOT to do homework.
- More girls go to college than boys: the National Center for Education Statistics (1997) predicts that by 2007, there will be 9.2 million women in college and 6.9 million men.

Sommers does note that boys out-perform girls on almost every standardized test (e.g., the Scholastic Aptitude Test, law, medical, and graduate school admissions tests), but suggests that a selection effect is at work. For example, a greater percentage of girls take the SAT. Thus “at-risk boys,” who will likely perform poorly on such tests, are also less likely to take them. The not surprising result is a higher average from a select group of males versus a lower average from a more heterogeneous sample of girls.

Sommers is vehement in her criticism of Gilligan and her concerns are not necessarily with Gilligan’s conclusions about the status of girls in today’s society, but with her methodology. First, Gilligan bases her results on anecdotes and small numbers of interview participants. Second, after numerous attempts to locate Gilligan’s data in order to replicate the results, they remain unavailable. And third, Gilligan makes comparative conclusions about males and females without studying boys.

These criticisms of Gilligan’s work and Sommers’ use of national statistics suggest that girls may not be quite as disadvantaged as some authors would have readers believe. However, there are clearly two sides to this issue and Gilligan and her compatriots believe strongly that the evidence they have collected supports the idea that girls are not fairing as well as boys in the United States.¹ Who is doing better? We seek to address this question with data.

CONCEPTS, DATA, AND METHODS OF INDEX CONSTRUCTION

Conceptualization of Child Well-Being, Sources of Data, and Key Indicators

We seek to measure the circumstances of children’s lives – to assess their quality of life – and track changes therein over time. Subjective assessments on quality of life have been studied by many social scientists for over three decades. Following Land et al. (2001), we cite the literature reviews by Cummins (1996, 1997) of 27 subjective well-being studies conducted in recent decades that offer definitions of the quality of life. Cummins’ review of these studies suggest that there is a relatively small number of domains that comprise most of the

subject areas that have been studied. Specifically, Cummins found that about 68% of the 173 different domain names and 83% of the total reported data found in the studies reviewed could be grouped into the following seven domains of life:

- *material well-being* (e.g., command over material and financial resources and consumption);
- *health* (e.g., health functioning, personal health);
- *safety* (e.g., security from violence, personal control);
- *productive activity* (e.g., employment, job, work);
- *intimacy* (e.g., social and family connections);
- *place in community* (e.g., socioeconomic status, community involvement, self-esteem, and empowerment); and
- *emotional well-being* (leisure, spiritual well-being, morale, etc.).

Cummins (1996) states that the weight of the empirical literature indicates that these seven dimensions are all very relevant to subjective well-being. Therefore, indices of the quality of life, whether based on objective or subjective data, should attempt to tap into as many of these domains as possible. Of course, it is the case that these seven domains of well-being are derived from subjective assessments in focus groups, case studies, clinical studies, and sample surveys that cannot, by definition, be replicated in studies of the quality of life that utilize objective data. Nonetheless, the domains identified by Cummins (1996) can and should be used to guide the selection and classification of indices of the quality of life that are based on objective data, as will be illustrated for the case of child well-being below.

It should also be noted that extending these domains to youth and children poses some special considerations. Cummins' (1996) domains are comparable to those found by Gilman et al. (2000) in a study of general life satisfaction of a sample of American adolescents enrolled in grades 9–12. Gilman and colleagues noted five domains that were associated with general life satisfaction (ordered from greatest to lowest): family (relationships), self (image), living environment (material well-being), friends (relationships), and school. While the surveys used by Gilman et al. do not contain questions on all of the domains identified by Cummins (1996) and cited above, several of these domains overlap.

We proceed on the assumption that the seven domains of well-being identified above are applicable – with some adaptations – to the measurement of changes over time in the quality of life of children and youth. For instance, the main “productive activity” of most children up to age 18 is education rather than work. It is also clear that the principal way in which the command of children and youth over economic and material resources is measured in national data sources is through the income status of their parents or guardians.

Even with conceptual adaptations of this kind, the number of data sources available for the operationalization and measurement of child well-being in the United States is limited. Basic demographic data on family structures and incomes for households with children under age 18 present are available on an annual basis from the Annual Demographic Supplements to the March Current Population Surveys. Additional annual data on selected mortality and other vital statistics are available from the Vital Statistics compiled by the National Center for Health Statistics. In addition, there are three data sources based on replications of annual sample surveys that were developed in response to the Social Indicators Movement of the 1960s and that date back to the mid-1970s:

- the National Crime Victimization Survey (NCVS), which provides data on violent crime victimization from sample household members as young as, age 12 as well as data on the perceived ages of offenders as reported by victims in sample households;
- the High School Senior Survey (which evolved into the Monitoring the Future (MTF) Study – as it also began surveying samples of 8th and 10th graders in 1991), which provides data on illicit drug use (including cigarettes, alcohol, marijuana, cocaine, and heroin) and other teen attributes and behavior; and
- the National Assessment of Educational Progress (NAEP), which provides reading, mathematics, and other subject test scores that are comparable over time from samples of children/youth at ages 9, 13, and 17.

In a previous paper, Land et al. (2001) compiled some 28 Key Indicators of child well-being that are identified in Table I. They

TABLE I
Twenty-eight Key National Indicators of Child Well-being in the United States

Material well-being domain	<ol style="list-style-type: none"> 1. Poverty rate – all families with children 2. Secure parental employment rate 3. Median annual income – all families with children 4. Rate of children with health insurance coverage
Material well-being* and health domains	<ol style="list-style-type: none"> 1. Rate of children in families headed by a single parent 2. Rate of Children who have moved within the last year
Material well-being and social relationships* domains	<ol style="list-style-type: none"> 1. Infant mortality rate 2. Low birth weight rate 3. Mortality rate, ages 1–19 4. Rate of children with very good or excellent health (as reported by their parents) 5. Rate of children with activity limitations (as reported by their parents) 6. Rate of overweight children and adolescents, ages 6–17
Social relationships domain	
Health domain	<ol style="list-style-type: none"> 1. Teenage birth rate, ages 10–17 2. Rate of violent crime victimization, ages 12–17 3. Rate of violent crime offenders, under age 18 4. Rate of cigarette smoking, grade 12 5. Rate of alcoholic drinking, grade 12 6. Rate of illicit drug use, grade 12
Health and behavioral concerns* domains	
Safety/behavioral concerns domain	

TABLE I. (Continued)

Productive Activity (educational attainments) domain	<ol style="list-style-type: none"> 1. Reading test scores, ages 9, 13, 17 2. Mathematics test scores, ages 9, 13, 17
Place in community* and educational attainments domains	<ol style="list-style-type: none"> 1. Rate of preschool enrollment, ages 3–4 2. Rate of persons who have received a high school diploma, ages 18–24 3. Rate of youth not working and not in school, ages 16–19 4. Rate of persons who have received a bachelor's degree, ages 25–29 5. Rate of voting in presidential elections, ages 18–20
Emotional/spiritual well-being domain	<ol style="list-style-type: none"> 1. Suicide rate, ages 10–19 2. Rate of weekly religious attendance, grade 12 3. Percent who report religion as being very important, grade 12

Note: A few Key Indicators can be assigned to two domains. For these, the * denotes the domain-specific index to which the indicators are assigned for index computation purposes. Explanations for the domain assignments are given in the text.

are grouped in Table I as much as possible according to the domains of well-being identified by Cummins (1996) reviewed above.² In some cases key indicators are jointly indicative of two domains of well-being. This paper will utilize the indicators and domain groupings suggested by Land et al. (2001).

Of the 28 indicator series identified in Table I, all but one commences with 1985 values, and that data series (health insurance coverage) begins in 1987. Furthermore, the majority of the series in Table I are reported annually. The exceptions are the reading and mathematics test scores (from the NAEP), the obesity prevalence rates (from the National Health and Nutrition Examination Surveys (NHANES)), and the voting in presidential election year percentages (which necessarily occur on 4-year cycles). The NAEP test scores originally began on a 5-year cycle in 1975, changed to a 2-year cycle in 1985, and then changed to a 4-year cycle in 1999. Since these time series change quite smoothly, they can easily be interpolated to an annual basis. The obesity data from the NHANES studies were collected in cycles spanning the years 1971–1974, 1976–1980, and 1988–1994, and a single year, 1999. Additionally, the gender-specific low birth weight rates were computed in 5-year intervals by special request from the National Center of Health Statistics. To fit with the annual spacing of the other time series in Table I, these data have been interpolated for the intervening years. And, similarly, the voting percentages were interpolated to an annual basis from the 4-year cycles of presidential elections. All of the indicator series, with the exception of the test scores, are reported as either prevalence or incidence rates or as proportions per population units.

With respect to the seven domains of the quality of life identified by Cummins (1996) and summarized above, it can be seen that the child and youth well-being indicator series identified in Table I are most adequate with respect to the first four domains: material well-being, health, safety/behavioral concerns, and productivity (as measured by the educational attainments set of indicators). Several indicators in Table I can be construed as tapping more than one domain of well-being. These are identified in the table together with an indication of the domain into which they are grouped for

purposes of summary index construction. For instance, the rate of children in families headed by a single parent could be construed as tapping the intimacy or social relationships domain identified by Cummins. But this indicator also measures, in part, the ability of families to command material resources. Hence, we identify the rate of children in families headed by a single parent as potentially measuring both of these domains. Similarly, we identify teenage birth rates as indicative of both the health and behavioral concerns domains. We also identify three of the schooling indicators as indicative of both the productivity (educational attainments) and place in community domains. Note that there are no indicators in Table I that directly measure the emotional well-being domain. At best, this domain is only indirectly measured by the suicide and religiosity indicators identified in Table I. Also note that only two of the 28 indicators in Table I are based on subjective well-being responses (the very good/excellent health and activity limitations indicators), and these are based on survey responses from parents of the children rather than the children themselves. In sum, while the selection of indicators identified in Table I is guided by the recent statement on key domains of the quality of life by Cummins (1996), it also is highly constrained by available national data series and is almost exclusively based on objective indicators.

Before addressing the actual construction of the index, a few points regarding the disaggregation of data by gender should be made. For six of the 28 index series, the values for males and females are equivalent: the poverty rate (all families with children), the secure parental employment rate, median annual income (all families with children), the rate of children with health insurance coverage, the rate of children in families headed by a single parent, and the teen birth rate. This means that the overall material well-being domain is identical for males and females. We have no theoretical reason to believe that these series substantially differ by gender. Additionally, the teenage birth rates are reported as the same for both males and females because teen birth time series are only available for females.

Methods of index construction

After describing levels and trends in each of the individual indicator series cited in Table I, we report below our efforts to construct summary indices of well-being therefrom. In its broadest sense, an index number is a measure of the magnitude of a variable at one point (say, a specific year which is termed the *current year*) relative to its value at another point (called the *reference base* or *base year*). In the present case, the variable to be compared over time is the overall well-being of children in the United States – defined in terms of *averages of social conditions encountered by children and youth*. The question then becomes *how* to combine the relative changes in many rates of behaviors pertaining to child and youth well-being into a single number that can be meaningfully interpreted as a measure of changes in well-being.

The statistical theory of index numbers deals with the development and assessment of functional forms or aggregation functions for the construction of indices. Because efforts to construct summary indices of child well-being are in their infancy, there is virtue in the application of the simplest possible aggregation function. Following Land et al. (2001), we therefore have applied index formulas of the following type:

$$\text{Index of Child Well-Being} = (1/N) \sum_i [(\Delta R_{is}/R_{ir}) \times 100], \quad (1)$$

where N denotes the number of basic indicators on which the indicator is based, R_{is} denotes the i th child well-being indicator rate in the current year s (i.e., for every year from 1985 to 2001), R_{ir} denotes the i th rate in the *reference* or *base year* r , R_{is} and R_{ir} are called *rate relatives*, and the summation is taken over N indicator rates. In Equation (1) $\Delta R_{is}/R_{ir}$ denotes the numerical value of the *finite-difference* or *change* in indicator i from base year r to year s . Each change rate ratio is multiplied by 100 in Equation (1). This yields a value of 100% for each component rate ratio in the base year. Values of the ratios in subsequent years then either are greater (or lesser) than 100, indicating an improvement (deterioration) in the time series relative to its base year value. In index number terminology (Jazairi, 1983, p. 56), the formula in Equation (1)

is a *mean of rate ratios index*, is additive, and applies equal weights to all component rates.

In the analyses described below, we apply Equation (1) in two ways. First, we group the key child well-being indicators cited in Table I by the domain categories in the table and apply Equation (1) to the rate relatives within the seven well-being domains.³ This produces seven *Domain-Specific Summary Indices*, wherein the Key Indicators are equally weighted within their domains. Then we apply Equation (1) a second time to the domain-specific well-being indices to obtain an overall summary *Child Well-Being Index*. In this second application of Equation (1), the domain-specific summary indices are equally weighted. The choice of an equal weighting scheme at each of these steps in summary index construction is based on research by Hagerty and Land (2003, 2004), who have demonstrated that the equal-weighting strategy minimizes disagreement among all possible weighting schemes that individuals may have. Thus the result is a single index value for each year between 1985 and 2001.

RESULTS

Trends in Key Well-Being Indicators

We commence with a review of the levels and trends over time in each of the 28 child and youth well-being indicator series cited in Table I.

Material well-being

Figure 1 reports the trends, 1985–2001, of two of the material well-being domain indicators – the poverty prevalence rate and the secure parental employment rate. The former is measured as the percent of children ages 0–17 living in families whose incomes in a given year fall below the official poverty line calculated for each family type by the Census Bureau. The latter is defined as the percent of children ages 0–17 living in families with at least one parent employed full time all year. These trends are identical for males and females.

From Figure 1, it can be seen that the child poverty prevalence rate is at its lowest level in 2001 at about 16%. It reached a peak in the early-1990s, coinciding with the economic recession

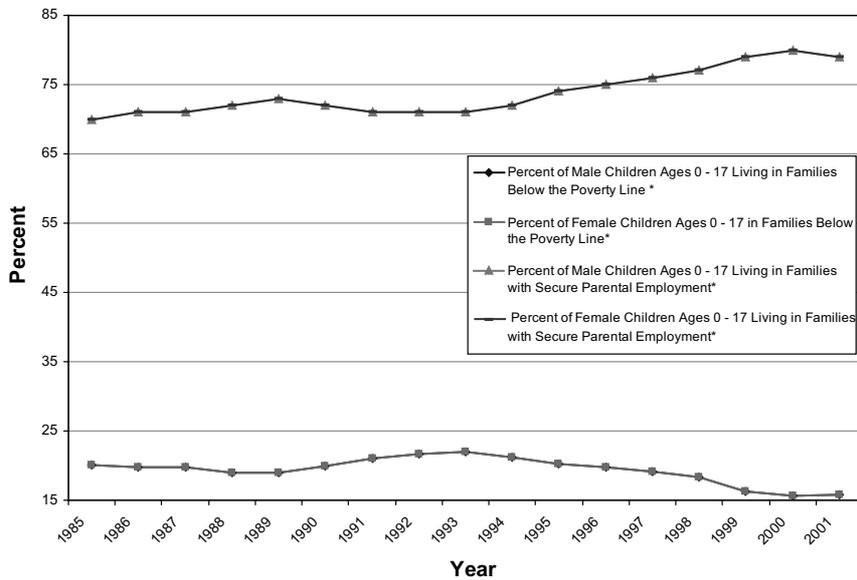


Figure 1. Family poverty rate and secure parental employment by gender of child, 1985–2001. *Indicates series that are the same for males and females.

experienced by the United States. The 2001 value is somewhat lower than the base year, 1985, when approximately 20% of children lived in poverty. The lowest rates appear in the mid-1990s, while the highest rates occur in the late-1990s. The decline in secure parental employment and income from 2000 to 2001 may indicate the beginning of the general financial and economic malaise experienced by the U.S. at the turn of the Millennium, however, verification of this trend will require additional data points.

Figure 2 displays levels and trends in median family income of families with related children under the age of 18 (in constant 2001 dollars). The valleys, occurring in 1985 and 1992 coincide with the economic recessions of the early-1980 and 1990s. After 1993, income steadily increased to 2001, corresponding to the economic expansion in the mid-to-late 1990s. The overall trend in the 17 years shown is increasing, up from around \$43,500 in 1985 to \$51,500 in 2001. Again, rates for males and females are equivalent.

Figure 3 shows the rates of children living in families covered by health insurance, in total and with private and public funded insurance. These indicators are based on questions that were

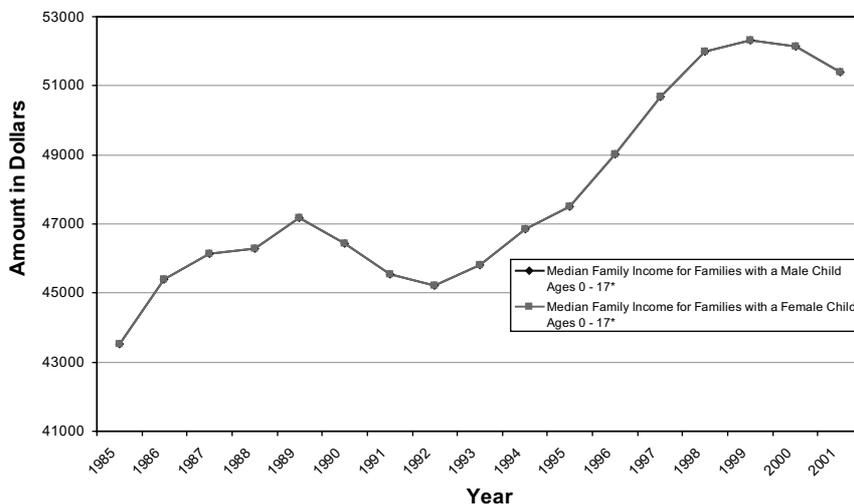


Figure 2. Median family income for families with children in 2001 Dollars, 1985–2001. *Indicates series that are the same for males and females.

added to the March Current Population Surveys beginning in 1987; thus, the length of the series in the figure (1987–2001) is shorter than those displayed previously. The trends show that

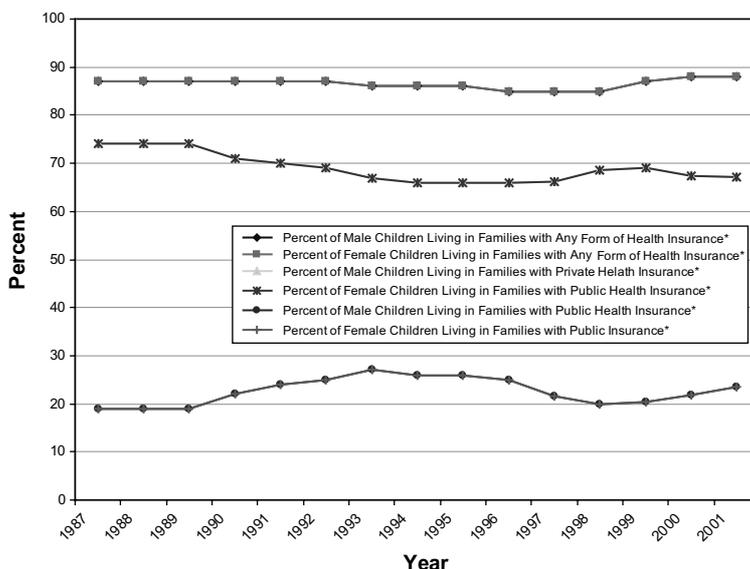


Figure 3. Percent of children living in families with health insurance by gender, 1987–2001. *Indicates series that are the same for males and females.

the overall health insurance rate has varied little, between 85 and 88%, in the 15 years included in the figure. However, the impact of the restructuring of welfare in 1996 from the previous Aid to Families with Dependent children (AFDC) to the Temporary Assistance to Needy Families (TANF) in 1996 shows up in the drop in the percent of families with public health insurance in the late-1990s (see also Chavkin et al., 2000).

Social relations

Figure 4 shows two indicators that we have placed in the social relations domain, but note that they also are aligned very closely with the material well-being domain (see Land et al., 2001). These two indicators are prevalence rates for children ages 0–17:

- living in single-parent families for the years 1985–2001, and
- children who have moved residences in the past year (residential mobility), for the years 1985–2001.

Research has shown that single parent families are more susceptible to poverty than two parent families (see Folk, 1996; Lerman, 1996; Hernandez, 1997; Bianchi, 1999). Further, single parent families are less likely to have formed connections with the extended families of both biological parents, thus reducing the amount of familial relationships. High residential mobility may also lead to a reduction in both quantity and quality of social relationships.

The overall conclusion garnered from Figure 4 is that the proportion of children in single-parent families has steadily increased since 1985 and 1996–1997. After that time the rate has been declined. We have no reason to suspect that the number of male and female children in single parent families is divergent, and therefore these series are identical. However, the trends for residential mobility can be distinguished by gender. For both boys and girls, the overall trend for residential mobility is much flatter than that of living in single parent families. The peak for both boys and girls occurred in the late 1980s, with males showing a larger decrease since that time. The largest gap between males and females occurred in 1994 when the male rate was 16.1% and the female rate was 17.7%

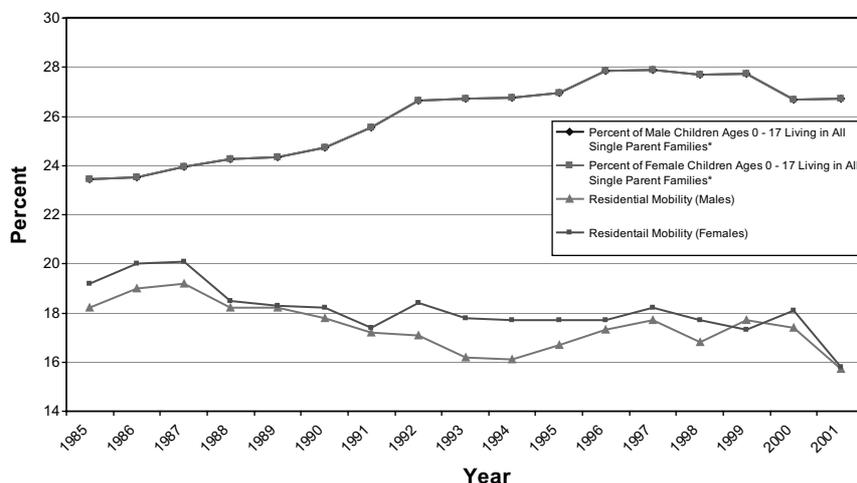


Figure 4. Percent of all children ages 0–17 living in single parent families and residential mobility by gender, 1985–2001. *Indicates series that is the same for males and females.

resulting in a gap of 1.6% points. Males showed lower residential mobility rates until 1999, when male and female rates converged. However in 2000, the rate of female mobility once again climbed higher than that of males only to converge once again in 2001.

Health

Key indicators in the health domain include rates of low birth weight, infant and child mortality, and parental assessment of chronic activity limitation and general health. Figure 5 shows the levels and trends in male and female percent of births with low birth weights (infants weighing less than 2500 g at birth) and male and female infant mortality rates (the number of deaths before age one per 1000 live births of normal weight babies). Trends in low birth weight have increased since 1985, for both male and female infants. These increases are likely due to expanding medical technology that increasingly permits more premature infants to survive as well as increasing multiple birth events in which average birth weight is lower than in singleton births (Buehler et al., 1987; Hack et al., 1995). More female infants than males are born with low birth weights while the gap between the two (about 1% difference) has remained steady.

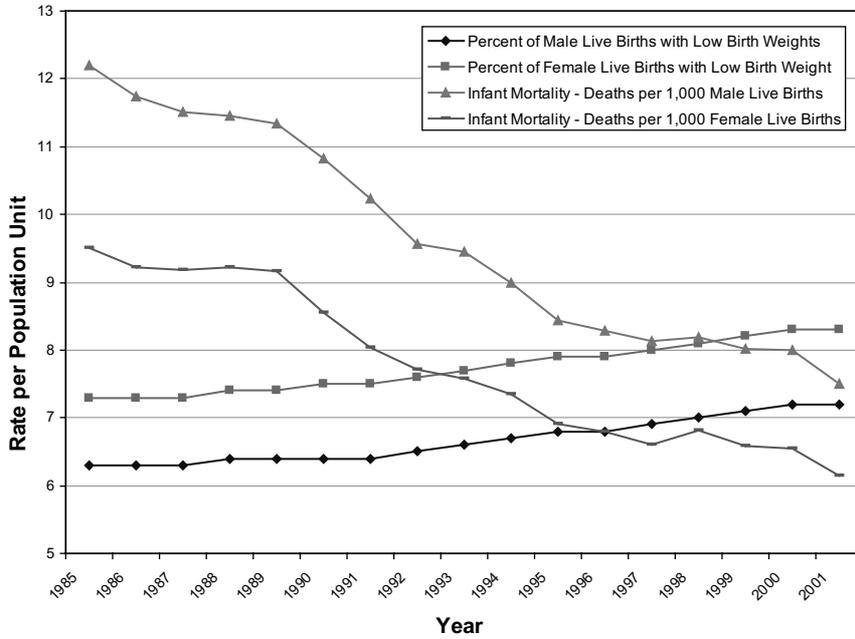


Figure 5. Infant mortality and low birth weight by gender, 1985–2001.

Figures 6–9 show trends in mortality rates (per 100 000 population units) for four age groups of youth: 1–4, 5–9, 10–14, and 15–19. The infant mortality rate (for infants weighing more than 2500 g) as well as the four child and youth mortality rates have shown declining trends for both

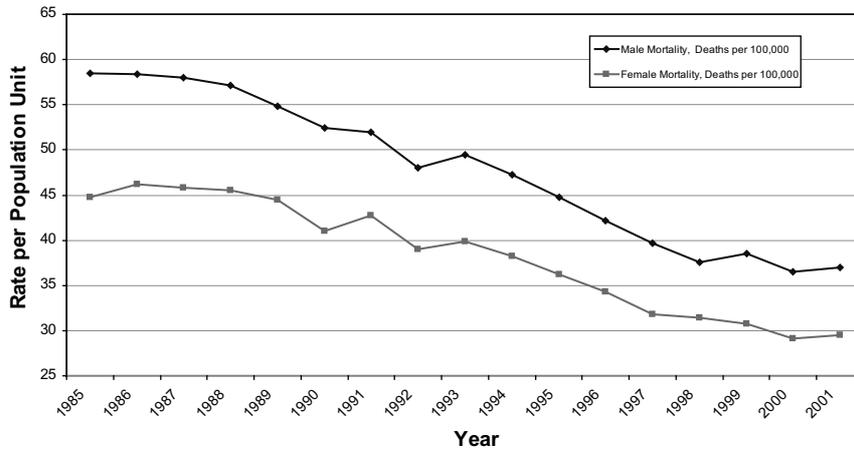


Figure 6. Child mortality by gender, ages 1–4, 1985–2001.

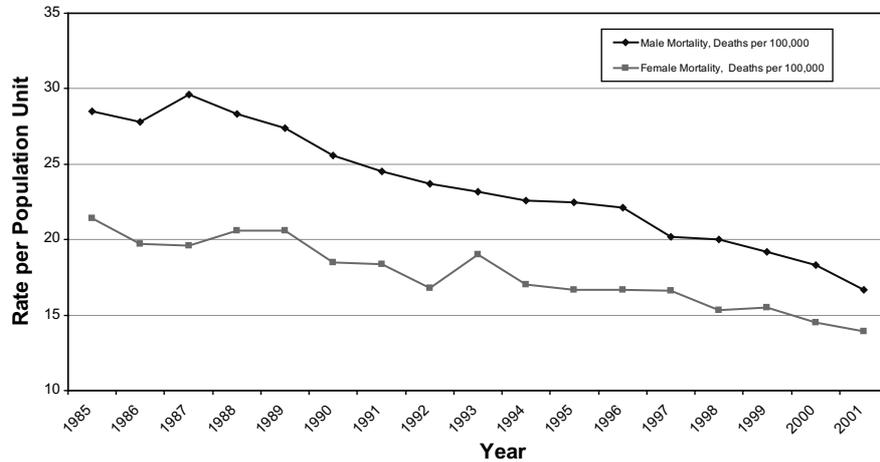


Figure 7. Child mortality by gender, ages 5–9, 1985–2001.

sexes since 1985. Again, medical innovations are a possible explanation for the decline in infant mortality rates, as well as increases in low birth weight rates as discussed above. In all five mortality series however, males have consistently higher rates than females and with each increasing age group the difference between males and females increases. Figure 6

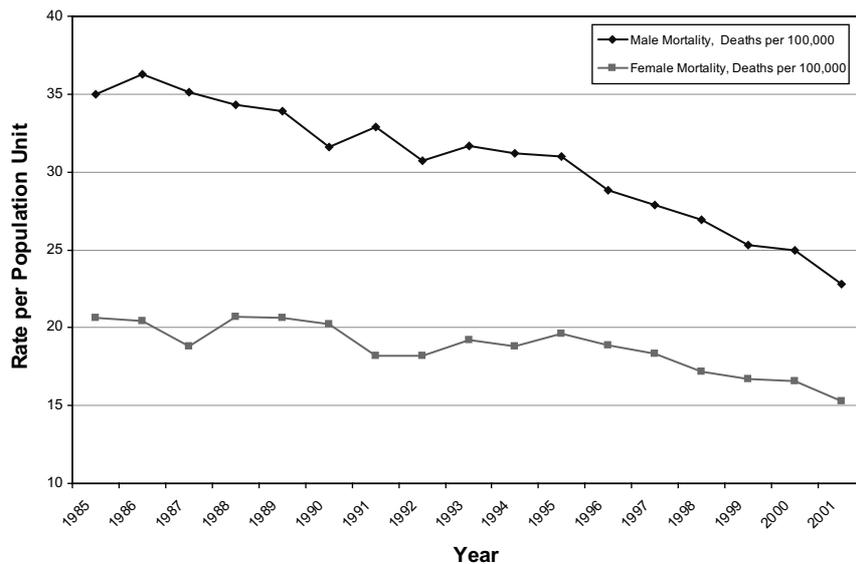


Figure 8. Child mortality by gender, ages 10–14, 1985–2001.

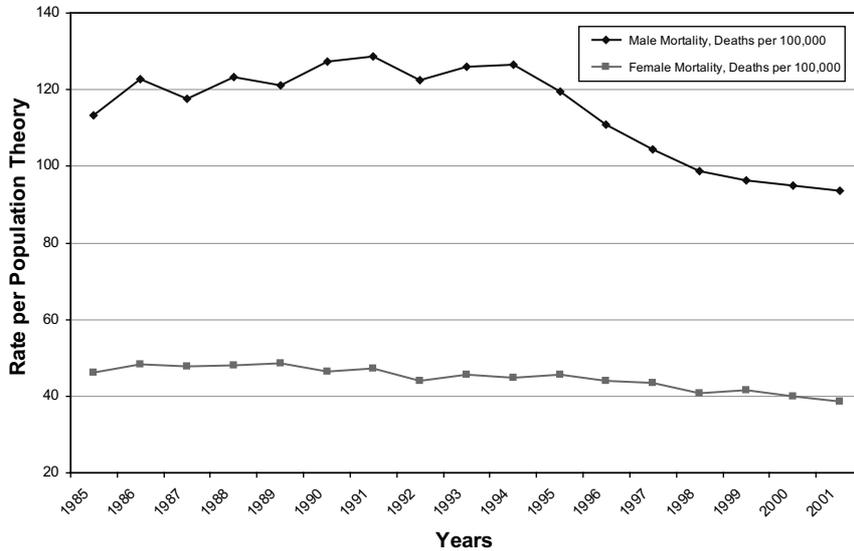


Figure 9. Child mortality by gender, ages 15–19, 1985–2001.

shows that in 2001 the gap between male and female mortality rates in the 1–4 age group was approximately 7 deaths per 100 000 children whereas for the 15–19 age group (see Figure 9) the gap was approximately 55 deaths per 100 000 youth. Thus while females are disadvantaged in that they are more frequently born with low birth weights, after birth, girls are more likely to survive through childhood and adolescence.

Two subjective health prevalence indicators – the percent of children ages 0–17 with very good or excellent health and the percent of children ages 0–17 with activity limitations (both as reported by their parents) – are displayed in Figures 10 and 11. Figure 10 shows moving averages for the percent of males and females ages 0–17 with very good or excellent health (as reported by their parents).⁴ Both groups show a percentage increase from the base year to the early 1990s, followed by a decline through the mid-1990s. By 1994, both boys and girls show increasing percentages. By 1996, more females than males were in very good or excellent health and the gap grew through the late-1990s. The trends for percents of males and females with activity limitations, as seen in Figure 11, show considerable variation.⁵ Males consistently show higher percentages of

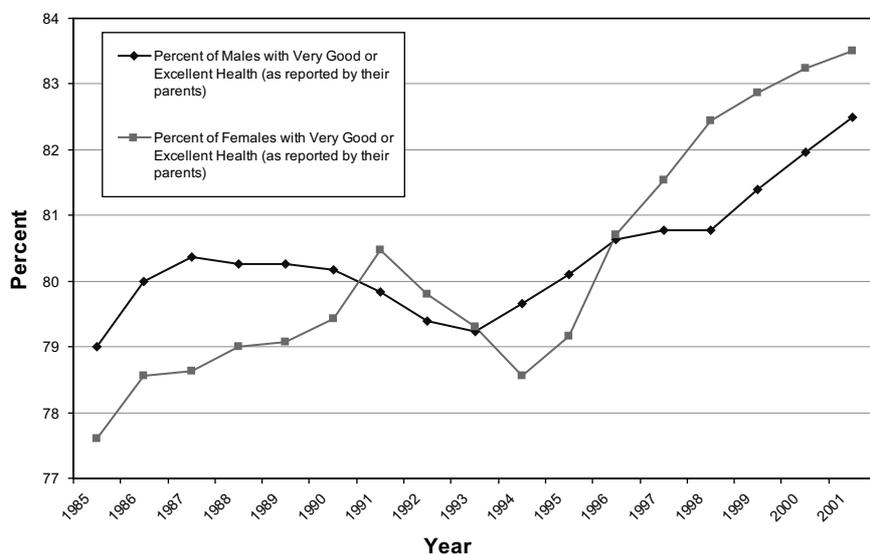


Figure 10. Moving averages of subjective health indicator by gender, 1985–2001.

activity limitation and the gap has increased since 1994. In 1994, 7.9% of males had activity limitations while 5.6% of females did so; by 2000 those figures had become 7.5 and 4.4%. The chronic

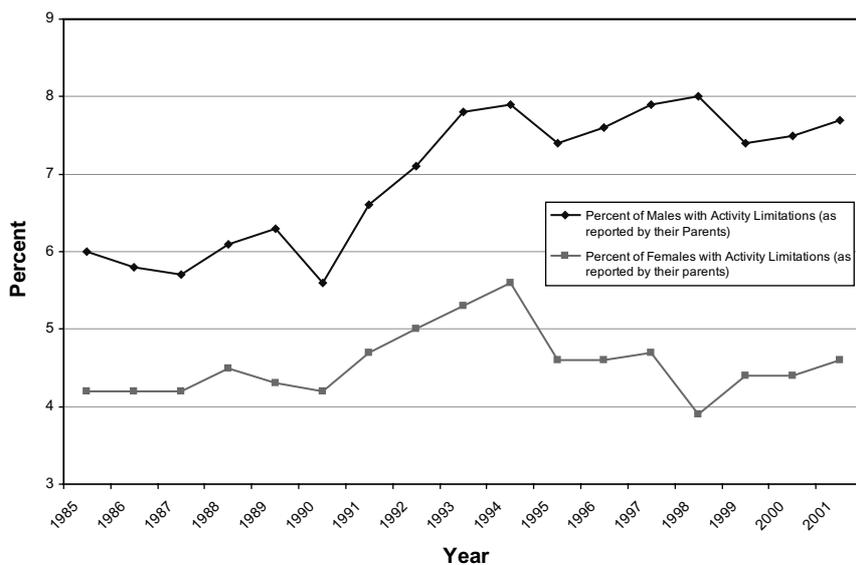


Figure 11. Activity limitation by gender, 1985–2001.

conditions that most affect children's activity limitations are asthma and neurodevelopmental disorders, such as mental retardation (Newacheck and Halfon, 1998; Msall et al., 2003).

Figures 10 and 11 show corresponding trends in self-reported health and activity limitations such that health ratings declined during the early-1990s while rates of activity limitation increased. The most likely explanation for such trends is the economic recession experienced during the early-1990s. A number of studies show that children's health is strongly related to poverty such that poor health and lack of financial resources are positively associated (Montgomery et al., 1996; Goodman, 1999). Further, a number of researchers have found a significant relationship between poverty and activity limitations, physical disablement, and chronic conditions that cause disabilities in children (Hogan et al., 1997; Newacheck and Halfon, 1998; Newacheck et al., 2003). Given the increasing poverty rate shown in Figure 1 and declining median income depicted in Figure 2 from 1990 to 1994, it is likely that economic factors are driving the trends seen in self-reported health and activity limitations.

Figure 12 reports prevalence rates and trends for overweight children (ages 6–11) and adolescents (ages 12–17).⁶ The National Center for Health Statistics defines overweight as having a body mass index (BMI) that is at or above the 95th percentile sex-specific BMI calculated at 6-month intervals for children ages 6–11 from the 1963–1965 National Health Examination Survey (NHES) and for adolescents ages 12–17 from the 1966–1970 NHES (Fried et al., 2003). Child and youth obesity is an important social concern because overweight children are at greater risk of being overweight as adults, and overweight adults are at greater risk of experiencing health problems. Among these are hypertension, coronary heart disease, gallbladder disease, Type II (non-insulin-dependent) diabetes, and some cancers (Toriano et al., 1995). For both age groups, and for both genders, the charts in Figure 12 show that the percent overweight has increased since 1985. Males consistently show higher overweight rates than females in the young-age group, with the gap remaining steady at approximately 2%. By comparison, convergence in the obesity rate for males and females ages 12–19 occurred

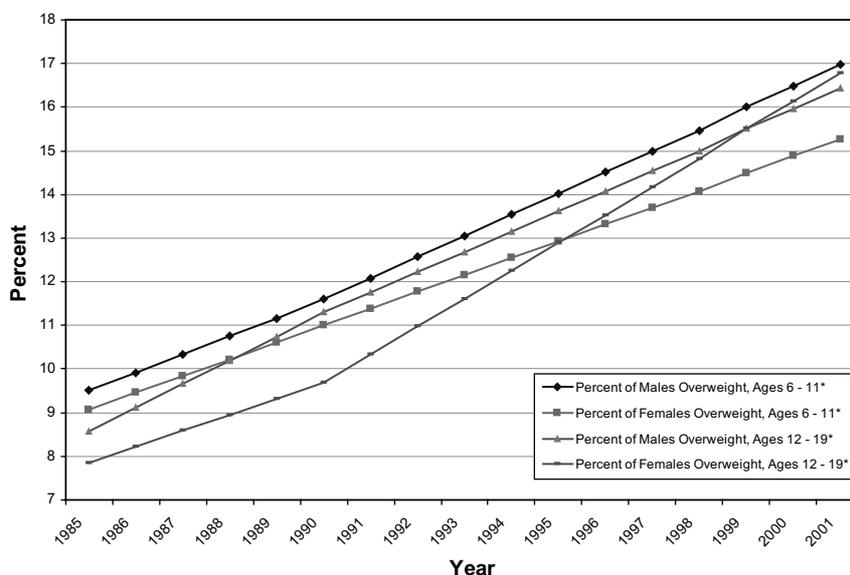


Figure 12. Overweight percentages by gender, 1985–2001. *Data interpolated 1985–1987, 1984–1998, 2000–2001.

in 1999. While these data were last made available in 1999, these trends show a disturbing linear increase over the past decade-and-a-half, suggesting children’s health in the U.S. is declining.

Safety and behavioral concerns

This domain is based on indicators of rates of teen births, violent crime victimizations, violent crime arrests, and the consumption of cigarettes, alcohol, and illicit drugs. Figure 13 shows the incidence rates for births to teenagers ages 10–17. Note that this indicator also taps into the health domain; however, we have chosen to include it in the behavioral concerns domain because it represents age-inappropriate behavior. We have chosen to use the same measure for males and females despite the fact that the number of teen males and females involved in pregnancies may not be equivalent. We found no data series that supplied the number of teenage fathers in the United States for all 17 years of this study. The series shows a dramatic increase in teenage births through the late-1980s, peaking in 1991, followed by an equally dramatic decrease to

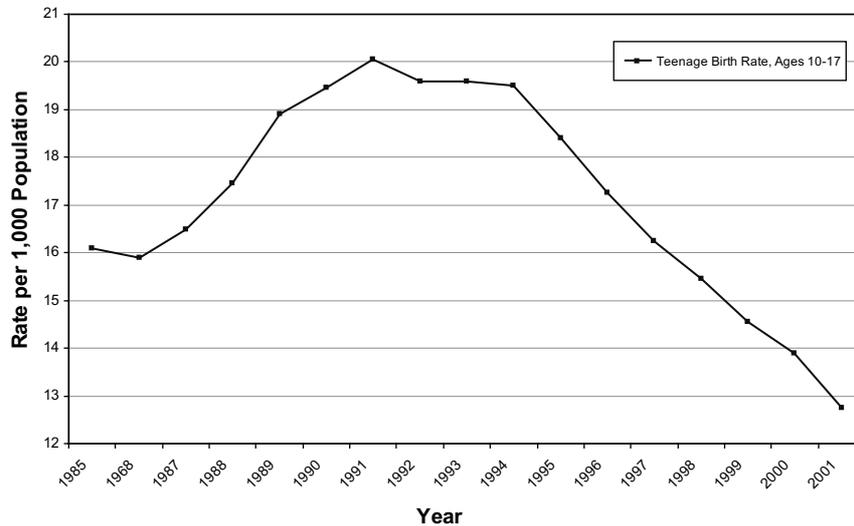


Figure 13. Teenage birth rate, 1985–2001.

2001. This trend suggests that “safe-sex” and other public and community health campaigns are having an effect on adolescents who are choosing to engage in sexual behavior (Lewis et al., 1999; Wilson-Sweebe and Bond-Zielinski, 2000; Keller and Brown, 2002).

Figures 14 and 15 display levels and trends in two prevalence rate indicator time series of the physical safety of children. The first is the rate per 1000 children and youth ages 12–19 who are victims of violent crimes. The second is the rate per 100 000 children and youth under the age of 18 who are offenders of violent crimes (as reported by local jurisdictions to the Federal Bureau of Investigation). Figure 14 shows that males have higher rates of victimization than females for all years shown. Both male and female rates peaked in 1993 and have declined since. By the 2001, the gap between the two rates has closed since the base year in 1985 (40 per 1000 population units vs. 20 per 1000 population units).

As mentioned, Figure 15 shows the violent crime arrest rate per 100 000 children and youth under the age of 18. The figures offer two conclusions about male and female juvenile crime. The first is that since 1985, male arrest rates are over three times as high as female arrest rates. And second, while male rates

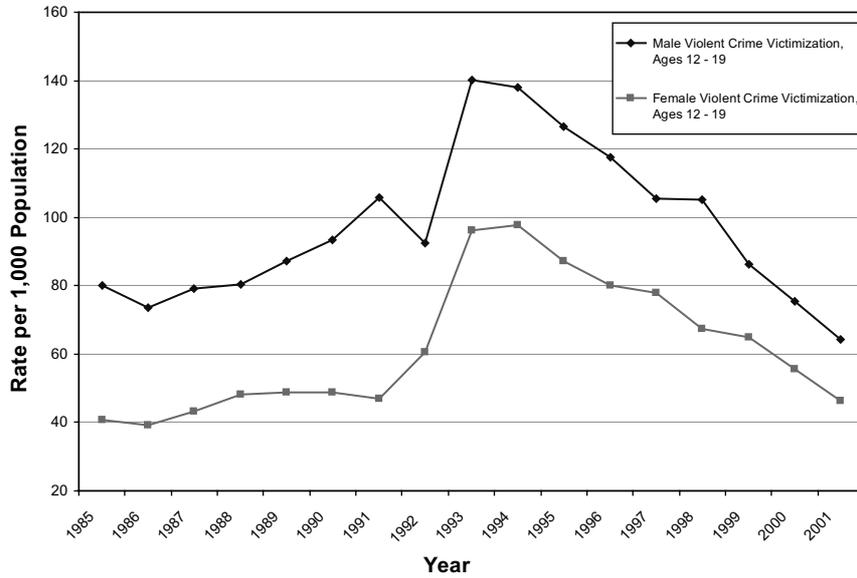


Figure 14. Violent crime victimization rates by gender, 1985–2001.

increased more steeply than female rates during the early-1990s, the male rate has also decreased more steeply during the late-1990s. In fact, in 2001 the male arrest rate for youth in this age

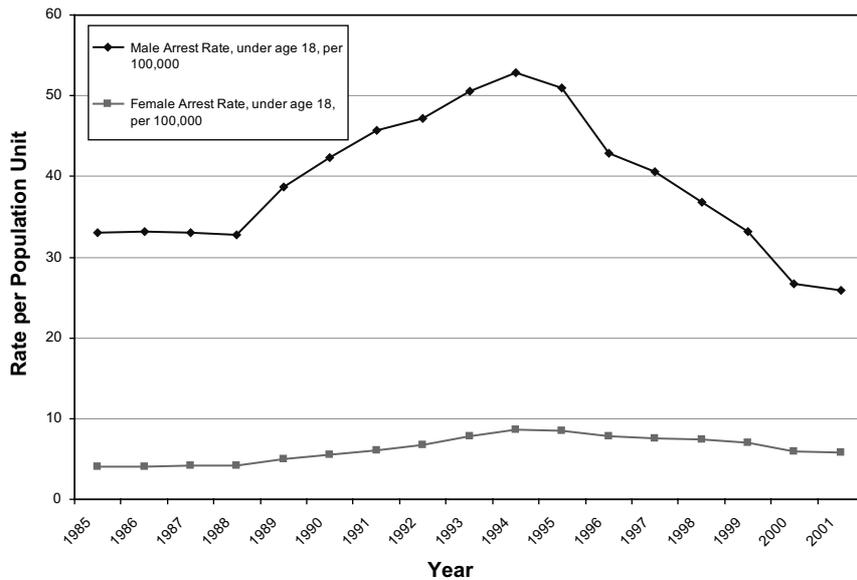


Figure 15. Juvenile violent crime arrest rates by gender, 1985–2001.

group was actually lower than it was in 1985 (26 per 100 000 compared to 33 per 100 000 in 1985), while the female rate is one-and-one-half times its 1985 value (4 per 100 000 vs. 6 per 100 000). Increasing crime rates during the early-1990s were associated with the influx of drugs and drug-related violence among America's youth. However, causes of the substantial decline in violent crime subsequent to 1993 are less clear. In a recent edited volume, Blumstein and Wallman (2000) suggest that there are three prominent explanations of the crime drop in the United States: demographic trends, incarceration policies, and police practices. With fewer numbers of young people in the most crime-prone age group (i.e., teenagers), high rates of incarceration, and the introduction of innovative policing policies crime rates steadily declined during the late-1990s. However, other researchers have cited possible explanations that range from increasing sensitization to violence (Rosenfeld, 2000), to an increase in abortion rates during the 1970s and 1980s that reduced the number of "potential" delinquents (Holloway, 1999), and finally to increasing economic prosperity (Freeman, 2000).

Figures 16–18 show prevalence levels (percent of sample survey respondents) and trends in self-reported teenage illicit cigarette smoking, alcohol drinking, and illicit drug use (e.g., marijuana, cocaine, heroin) in the previous 30 days at the time of the survey. Trends are displayed for youth enrolled in the 12th grade and are part of the Monitoring the Future Study (MTF). Figure 16 shows that smoking decreased for males from 1985 to 1992 but increased for females. In 1992, male rates of smoking surpassed female rates. Since 1992, the rates for both males and females increased to 1997, followed by a significant decrease to 2001. Figure 17 shows that overall, male and female rates of drinking alcohol have decreased since 1985, with male rates higher than female rates for the entire series. The gap between the two has essentially remained unchanged (approximately 15% points). However, since the late-1990s, the female rates of drinking appear to level off while male rates show a slight decline. And finally, Figure 18 shows that both male and female rates of illegal drug use decreased from 1985 to 1992 and then increased to the late-1990s. More males than females report using illegal drugs, and the gap between the two has grown since the early-1990s.

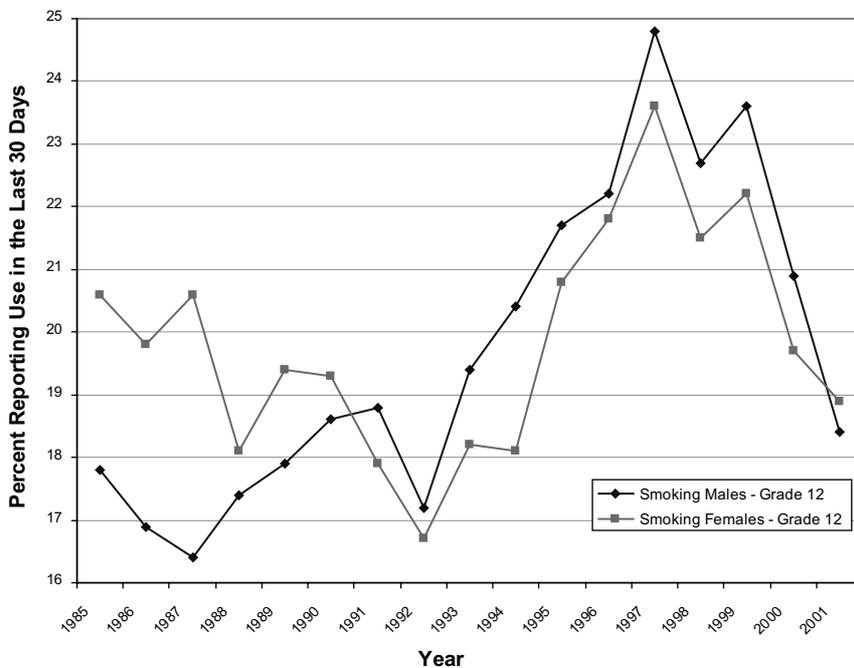


Figure 16. Teenage illicit smoking by gender, 1985–2001.

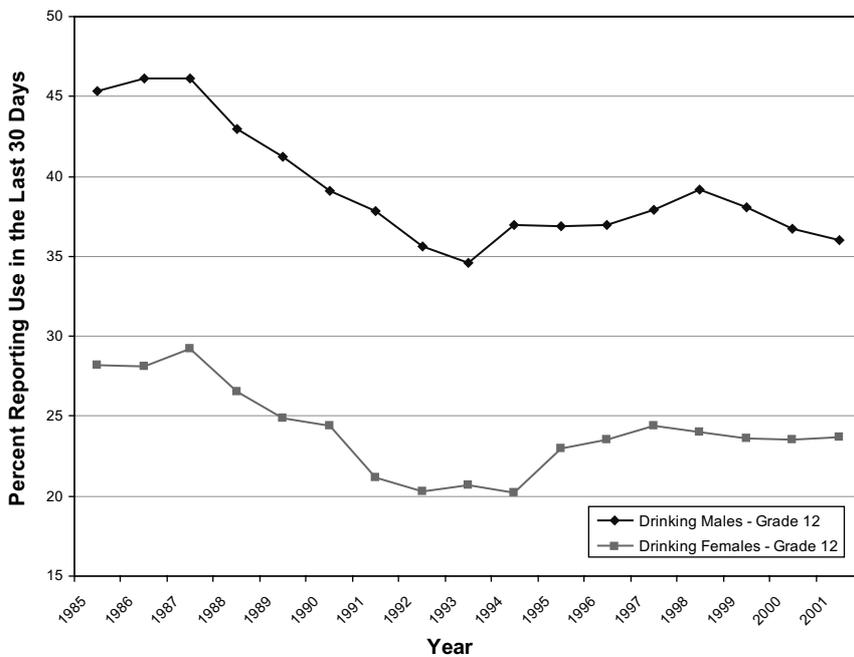


Figure 17. Teenage illicit drinking by gender, 1985–2001.

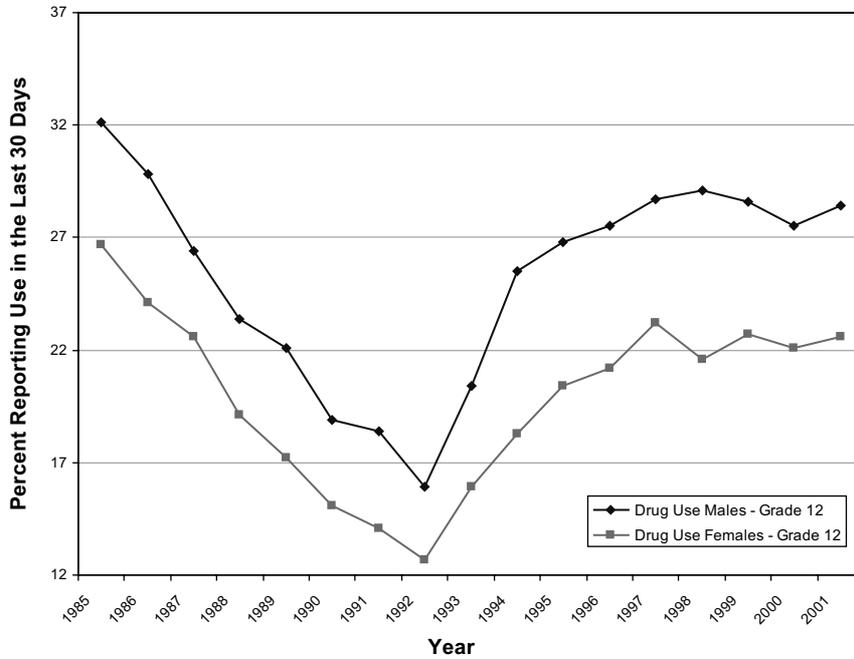


Figure 18. Teenage illicit drug use by gender, 1985–2001.

Both male and female smoking (see Figure 16), as well as illicit drug use (see Figure 18), showed dramatic increases beginning in 1993. Johnston et al. (2003) suggest that these increases in drug use can be attributed to a decline in the perceived risk of using such substances. The early 1990s were marked by a decline in drug prevention ads in popular media and cuts in government funding for drug abuse prevention programs in schools. Further, due to lower usage rates in previous cohorts, high school seniors during the early- and mid-1990s lacked peers with first hand experiences regarding the harmfulness of using drugs. As perceived risk increased during the late-1990s, smoking and illicit drug use rates began to decline. Current data indicate that drug use among males and females is lower in 2001 than in the base year of 1985.

Productive activity (educational attainment)

The next domain in Table I is the productive activity, or what we call educational attainment, domain. Figures 18 and 19 display levels and trends in average test scores in the reading

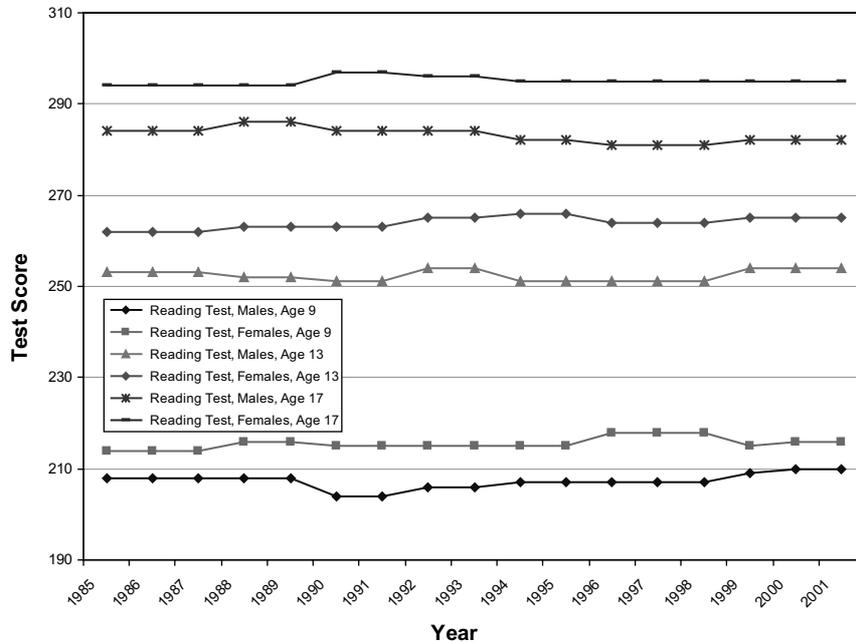


Figure 19. National assessment of educational test scores for reading skills by gender (with interpolated values for missing years), 1985–2001.

and mathematics tests administered as part of the continuing National Assessment of Educational Progress (NAEP) series for children ages 9, 13, and 17. Reading scores for both males and females, as seen in Figure 19, have remained relatively stable since 1985. In all three age groups, females hold a slight advantage over males with the larger gap occurring in the oldest group. Figure 20 reveals that for both males and females, mathematics test scores have shown a slight increase since 1985 for all three age groups. The gaps between males and females are largest for the oldest group (although still no larger than four points at any age) and are negligible for the two youngest groups. Data for 2001 show that male and female rates have essentially converged for all three age groups.⁷ Based solely on these figures, girls do not appear to show the drastic academic disadvantages that some feminist scholars imply.

Place in community

Figures 21–23 depict the graphs of levels and trends in five indicator series that are indicative of attachment of children to

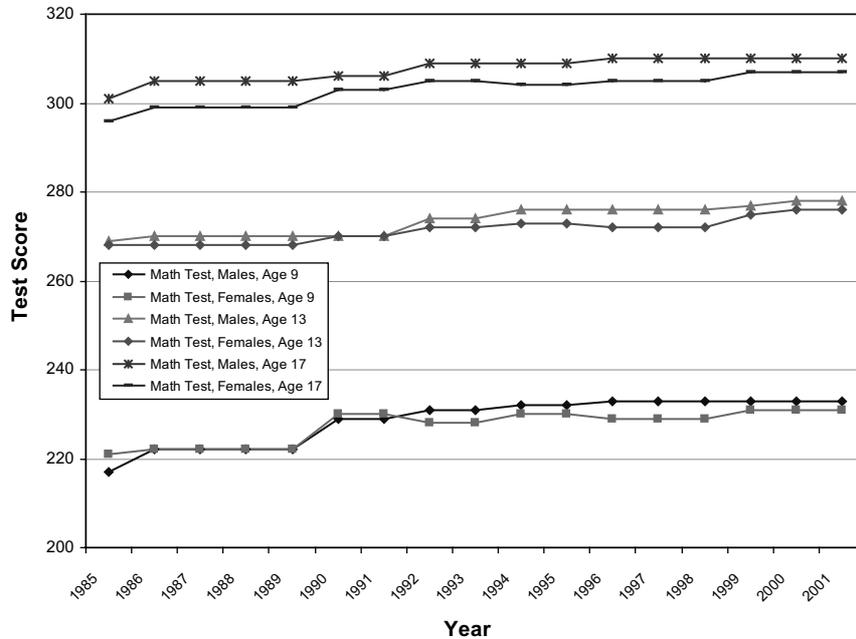


Figure 20. National assessment of educational test scores for mathematics skills by gender (with interpolated values for missing years), 1985–2001.

productive activities such as schooling and work, and to civic participation via voting in Presidential elections. We call these five indicators the place in community domain. Figure 21 shows the prevalence rate time series for the percentage of youth, ages 18–24, who reported voting in Presidential elections. Male and female trends are similar with an increase from the 1988 election to the 1992 election, followed by a sharp decrease to 1996. A very modest increase is seen for males in the 2000 election while females show an equivalent decrease. Despite the increase in voting percentages in 1992, a contested and popular Presidential election, data for 2000 do not show a similar increase despite yet another contested race. The 1992 election may have benefited from advertising campaigns targeted at this age group, especially the “Rock the Vote” series by the popular cable channel, Music Television (MTV) (Tindell and Medhurst, 1998). It should also be noted that at all years, the percent of females who vote is higher than the male percent, with a relative constant difference of 5% points.

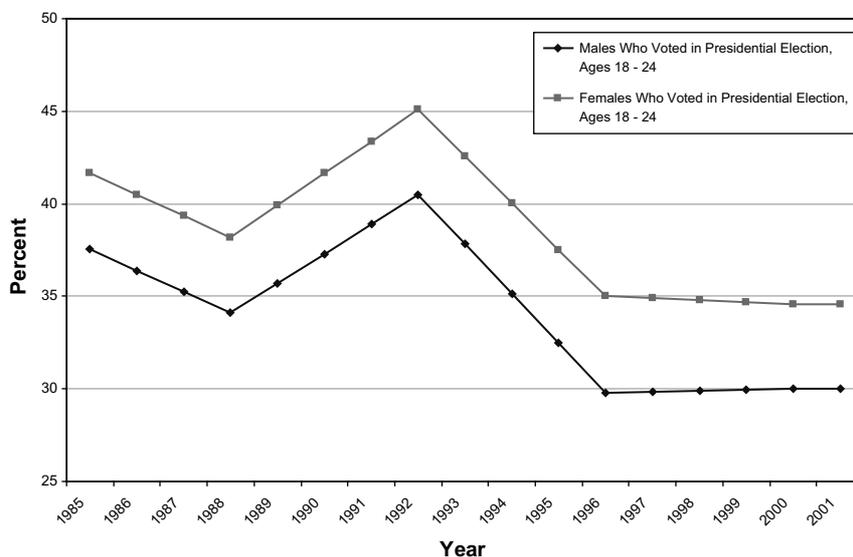


Figure 21. Voting in presidential elections by gender, 1985–2001.

Figure 22 shows two indicators in the place in community domain: the percent of youth ages 18–24 who have received a high school diploma or its equivalent and the percent of young adults ages 25–29 who have received a bachelor's degree. The percentages of both males and females who have received a high school degree have remained steady since 1985. It is females who have consistently shown a higher rate of attainment than males, with a slight decrease in male achievement between 2000 and 2001. The percent of young adults who have received a bachelor's degree has trended upwards in recent years for both males and females. Females showed a slightly higher rate in the period from 1985 to 1991. Male and female rates were virtually equivalent from 1991 to 1995, after which the female rate exceeded that of the males. Here again we see a slight decrease in the achievement rate of males between 2000 and 2001.

The last two indicator series for the place in community domain are the percent of youth, ages 16–19, who are not enrolled in school and are not employed and the percent of children ages 3 and 4 enrolled in preschool. Figure 23 presents the percentage of males and females who are not working and not enrolled in school. The trends show a slight decline in the

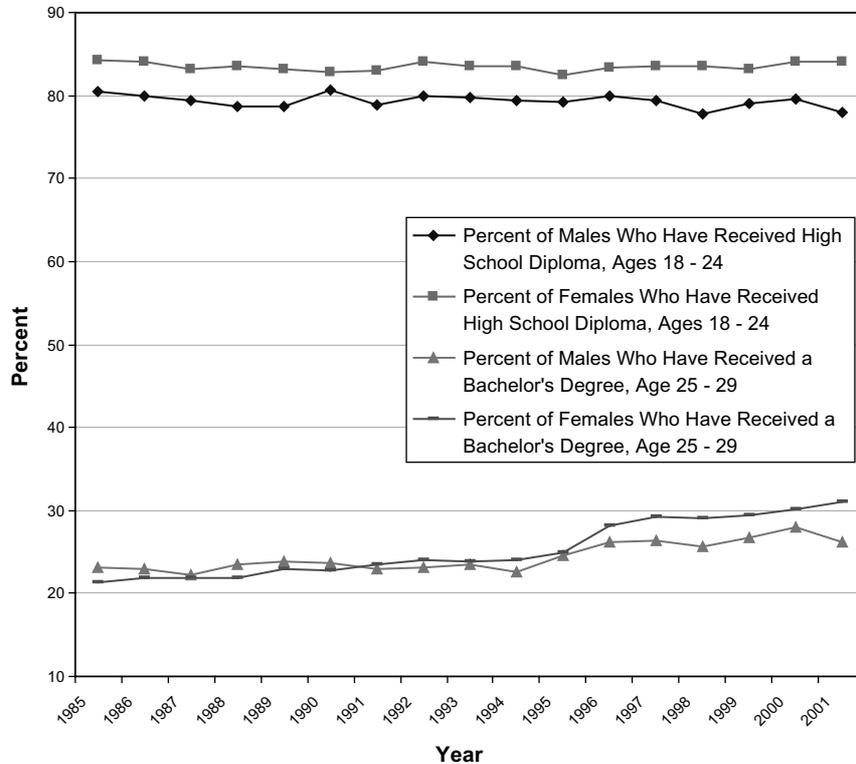


Figure 22. Educational attainment by gender, 1985–2001.

1990s, and this is especially true for females. More females than males are not working or in school, and this may be related to teen pregnancy. Pregnancy removes many adolescent females from both academic and occupational settings. The steep decline in the rate of teenage pregnancy coincides closely in time with the decrease in the percent of females not working or in school. The percent of children enrolled in preschool has trended upward since 1985, with a slight decrease from 1990 to 1993. Until 1992, more female children than male children were enrolled in preschool. After this point male and female percentages closely resembled each other and converged in 1999. In 2001, slightly more females than males were enrolled in preschool (53.1 vs. 51.7%). The economic depression experienced in the United States during the early 1990s may have affected preschool enrollment in one of two ways. First, many families experienced a reduction in income making preschool unaffordable. Second, job loss occurring during the period

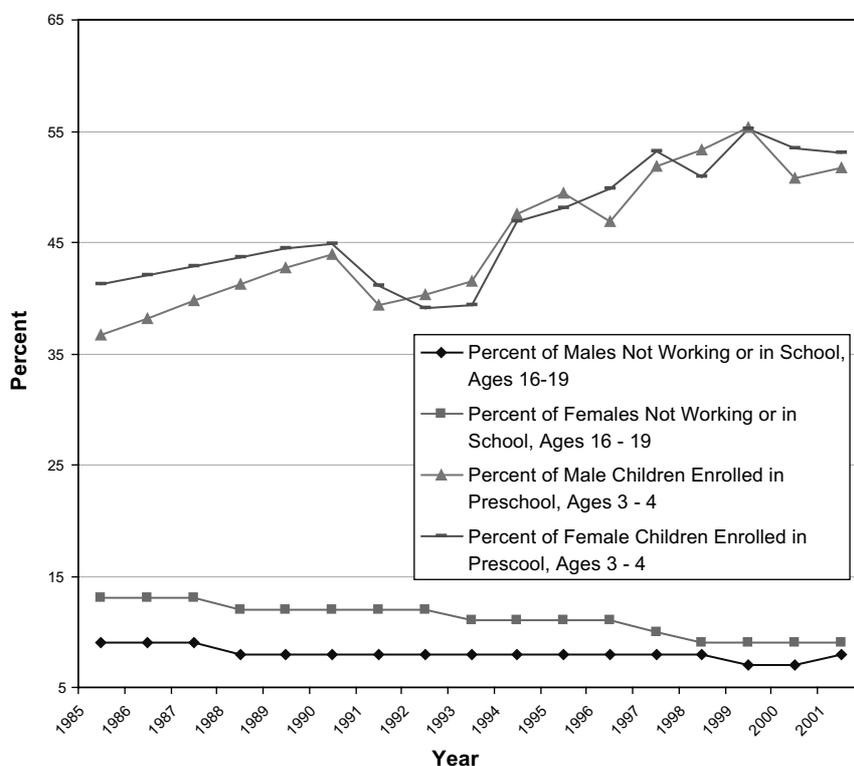


Figure 23. School enrollment by gender, 1985–2001.

enabled one parent to stay at home with children thereby negating the need for child care.

Emotional and spiritual well-being

The final domain, emotional and spiritual well-being, contains three indicators: rates of weekly religious ceremony attendance and self-reported religious attitudes, and rates of youth suicide. Figure 24 shows the percents of male and female 12th grade students who report weekly attendance at religious ceremonies in the Monitoring the Future Study. Smoothed trend lines are also presented in order to highlight the essential trends.⁸ Overall, more females than males report attending weekly religious ceremonies. The 2001 levels are lower than 1985 levels, indicating a downward trend for the series. For males however, the series is more chaotic. Although the series shows an initial decrease, an increase in the percentage in the late-1990s has brought the male series in 1999 back up to its 1985 level, only to

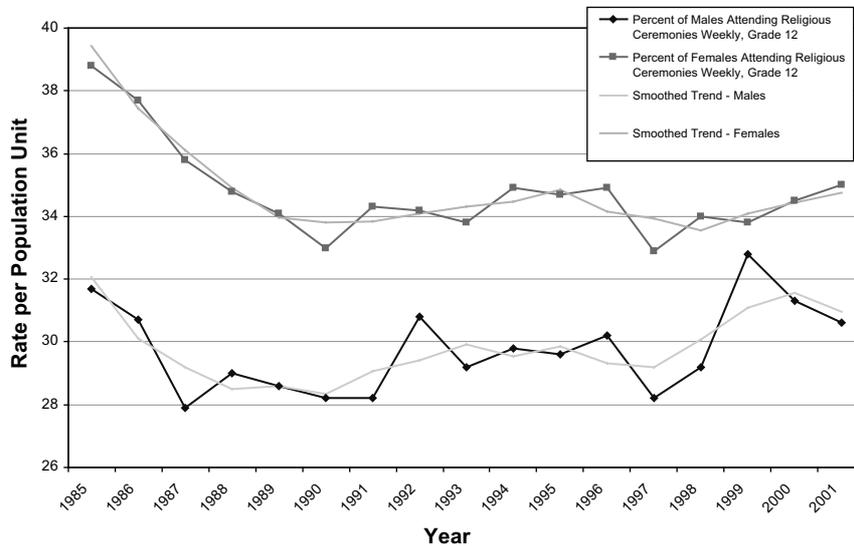


Figure 24. Church attendance rates by gender, 1985–2001.

decline in subsequent years such that the 2001 figure fell below the baseline level. Female rates for 2001 do not match base year levels of participation.

Figure 25 shows the compliment to religious attendance – the percent of male and female 12th graders who report that religion plays a very important role in their lives. Trends for both males and females show an increase, particularly since 1987. More females than males report that religion is very important, and this gap has remained steady at approximately 7%. While the percent of males and females reporting that religion is important has seen substantial increase since 1987, religious attendance shows little growth, and actually some decline, during the same period. These two trend lines are not incompatible given the aspect of religion that each question attempts to measure. Religious importance can be viewed as a measure of personal spirituality while attendance taps adherence to institutionalized religious practices. It is possible that many teenagers feel that religion is important on a personal level, but do not feel compelled to attend formal ceremonies.

Figure 26 depicts the suicide rates for males and females ages 10–14 and 15–19, measured by incident rates per 100,000. For

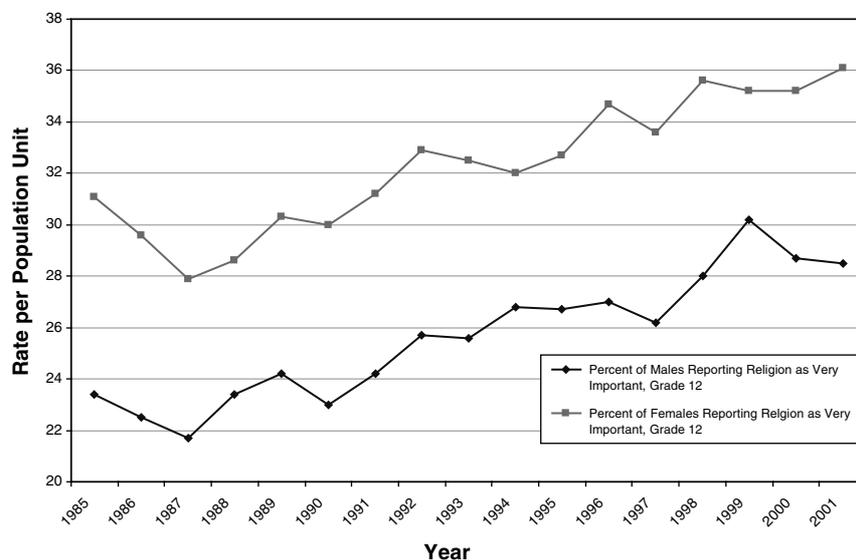


Figure 25. Religious importance by gender, 1985–2001.

the younger group, male and female rates have remained steady, with males showing consistently higher rates than females. For the older group, female rates have decreased slightly since the mid-1990s. Male rates increased slightly to 1994 after which time they decreased. The most striking thing to note about Figure 26 is the gap between males and females in the older group – the male suicide rate is four times that of the female rate. Comparing Figures 25 and 26, one can observe an inverse correlation between religious importance and the suicide rate for the older age groups, and this appears to be much stronger for males.

Gender comparisons in 2000 and trends in summary well-being indices

Index numbers are useful for the purpose of comparisons over time. However, they do not tell us about relative standing for any given year. For this, we compare the rates for the Key Indicators. Specifically, Table II summarizes and compares the gender advantages in the year 2001 for each of the 28 indicator series previously reviewed. It can be seen that males show an advantage in five of the 28 series while females show an advantage in 17 of the 28 series. By definition, the

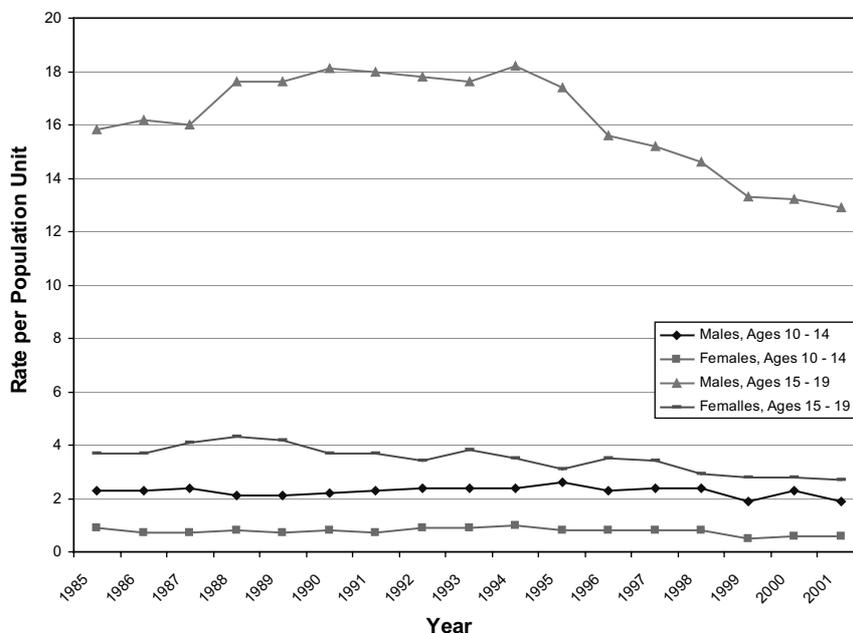


Figure 26. Suicide rates by gender (per 100,000), 1985–2001.

remaining indicators are equivalent for males and females. Overall, then, it must be concluded that, for 2001, females show an advantage in well-being on substantially more Key Indicators than do males.

Our central focus, however, is on trends in well-being over time. To study trends, we applied the mean rate of change ratio index construction formula of Equation (1) to the 28 basic indicators of child and youth well-being identified in Table I, for which we have just reviewed levels and trends over time. We used 1985 as the base year for the application of Equation (1). To compute the indices, 100 is taken as the reference point for each base year with the values of the indices for subsequent years computed as a percentage of this base year. Thus, an index value that is greater than 100 for a subsequent year indicates improvement compared to 1985 and a value less than 100 indicates a deterioration compared to the base year. Figures 27 and 28 display the graphs for the resulting domain-specific indices of child well-being for males and females, respectively.

TABLE II
Gender advantages in 28 indicator series (2001)

Male advantage	Neutral	Female advantage
1. Rate of children who have moved in the past year	1. Poverty rate – all families with children	1. Infant mortality rate
2. Low birth weight rate	2. Secure parental employment rate	2. Morality rate, age 1–19
3. Rate of cigarette smoking, grade 12	3. Median annual income – all families with children	3. Rate of children with very good or excellent health
4. Mathematics test scores, average of ages 9, 13, 17	4. Rate of children with health insurance coverage	4. Rate of children with activity limitation
5. Rate of youth not working and not in school, ages 16–19	5. Rate of children in families headed by a single parent	5. Rate of overweight children and adolescents
	6. Teenage birth rate, ages 10–17	6. Rate of violent crime victimization, ages 12–17
		7. Rate of violent crime offenders, under age 18
		8. Rate of alcohol drinking, grade 12
		9. Rate of illicit drug use, grade 12
		10. Reading test scores, average of ages 9, 13, 17
		11. Rate of preschool enrollment, ages 3–4
		12. Rate of persons who have received a high school diploma, ages 18–24

TABLE II (Continued)

Male advantage	Neutral	Female advantage
		13. Rate of persons who have received a bachelor's degree, ages 25–29
		14. Rate of voting in presidential elections
		15. Suicide rate, ages 10–19
		16. Rate of weekly religious attendance, grade 12
		17. Percent who report religion as being very important, grade 12

Figure 27 shows that the safety and behavioral concerns and the health domains exhibit the largest declines for males since 1985. This is especially true for the safety and behavioral concerns domain, which dropped significantly from 1992 to 1994. This coincides with a significant juvenile crime wave that occurred in the U.S. during the same period. However, the safety and behavioral concerns domain also shows a rebound from 1994 to 2001, with values in the two most recent years above those of the base year 1985. By comparison, the health domain has not reached base year levels through 2001. This is due to the continuing negative impacts of the increasing overweight percentages (obesity indicators) among male children and youth on the summary health domain index. Three other domain summary indices that show increases from low points in the 1990s are the material well-being domain, the social relationships domain, and the emotional/spiritual well-being domain. Two of these three domains, material well-being and emotional/spiritual well-being, have values in 2001 that exceed

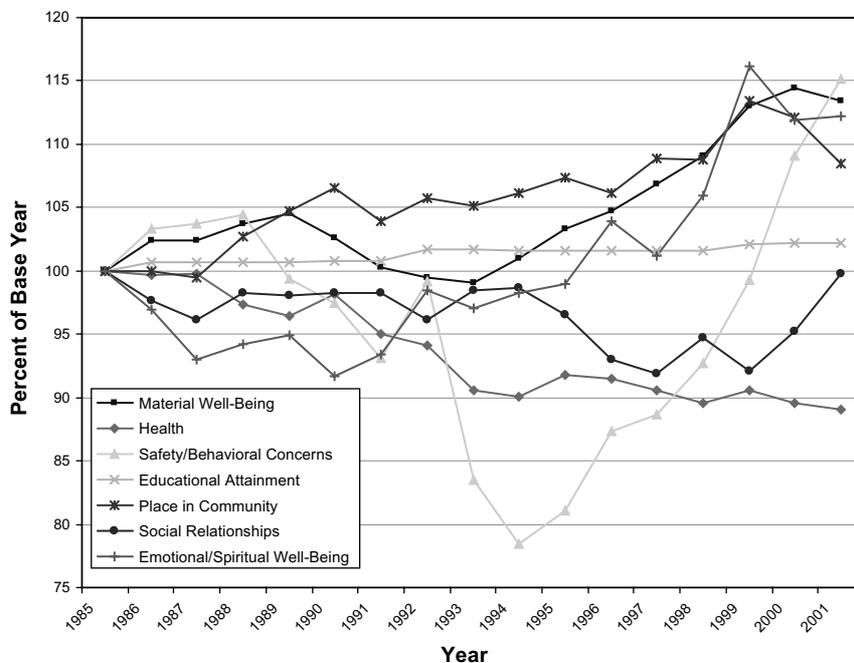


Figure 27. Domain-specific indices of child and youth well-being for males, 1985–2001.

their base year values by 10% or more. The social relationships domain, however, improved only to baseline levels by 2001. Yet another pattern is exhibited by the place in community domain and educational attainments domains, which show more steady increases above 1985 base values.

Figure 28, the companion chart to Figure 27, shows essentially the same story for females. Again, the safety and behavioral concerns and health domains fell well below the base rate after 1992. And like males, the drop in the safety and behavioral concerns domain was significantly larger than that of the health domain. Unlike males however, the female safety and behavioral domain did not exceed the base year value in 2001, primarily due to the fact that female crime rates in 2001 are actually *above* base year levels. Place in community also shows a constant increase from the base year since 1987. Educational attainment shows a constant but modest increase since 1989. As with males, the female emotional/spiritual well-being domain trended upward after 1994. The social relationships domain trended downward throughout the 1980s and 1990s but

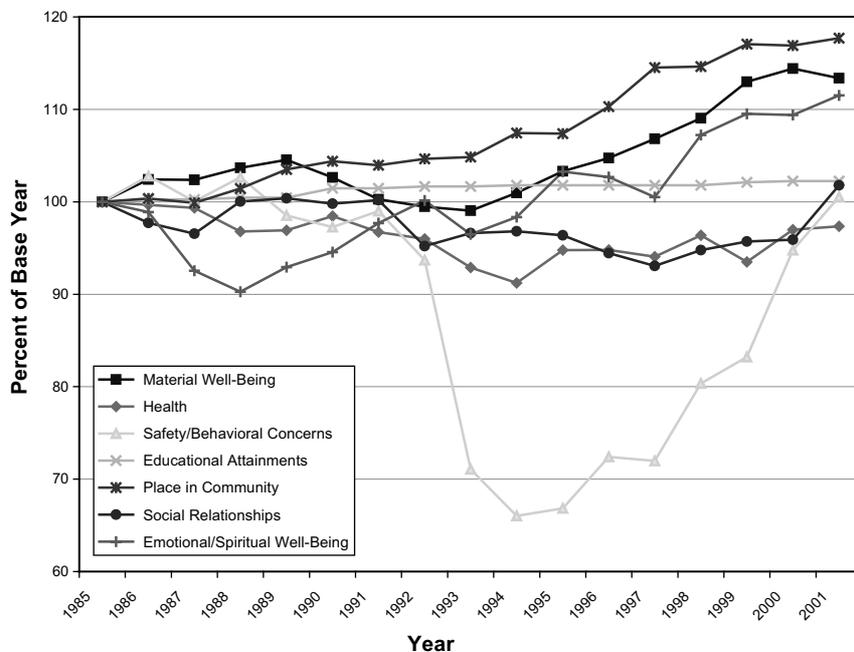


Figure 28. Domain-specific indices of child and youth well-being for females, 1985–2001.

recent improvement led to a value above the base year by 2001. Because the material well-being indicators are equivalent for males and females, it is no surprise that both trends are the same, above 100% of the base year after 1994.

These results suggest that the domains used in this study trend in the same direction, at roughly the same period in time, for both boys and girls. But what about overall well-being during this period? Figure 29 shows the equally weighted domain-specific average index. It is computed by applying the rate of change ratios formula Equation (1) a second time to average, for males and for females, the seven domain-specific indices of child and youth well-being illustrated in Figures 27 and 28. This process weights all the domains equally.

As can be seen from Figure 29, overall male well-being remained near the base year level until 1990, after which it fell to well below the 1985 level. Substantial declines occurred in the early-1990s, dropping male well-being to 96% of its base level in 1994 and 1995. A comparison with the domain-specific trends for males in Figure 27 makes clear that the bulk of this decline is due to the negative trend in the safety and behavioral concerns domain during the same period. The late-1990s show significant improvement for males, with levels well above that of the base year. A large part of this increasing trend in recent

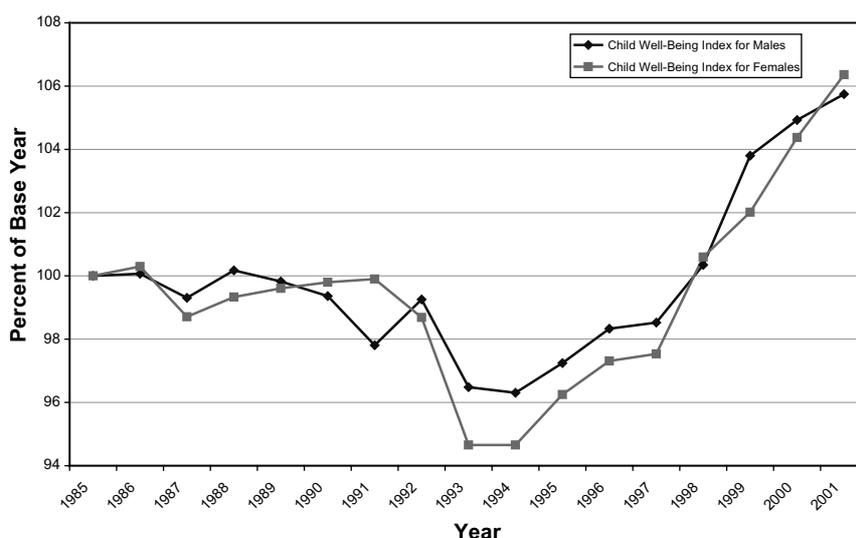


Figure 29. Male/female summary child well-being indices, 1985–2001.

years also can be attributed to steady improvements in the indicators in the safety and behavioral concerns domain.

For females, the story is much the same. Figure 29 shows that female well-being fell to below baseline levels in 1987 and remained there until 1991. However by 1992, a significant decrease in well-being can be seen, with the index bottoming-out at 95% of its baseline level in 1993. Substantial improvements occurred in the late-1990s, and in 2001 the index was at 106% of its baseline level. Again, these trends coincide with a downward trend in the safety and behavioral concerns domain for females.

Based on the domain-average summary of child and youth well-being indices reported here, we infer that both males and females have enjoyed an improving quality of life since the mid-1990s. Substantial downturns occurred during the late-1980s and early-1990s, mainly due to a significant increase in behavioral problems among children and youth. Remember however, that these indices are within group comparisons – males are compared to males across time and females are compared to females across time. To say that both males and females have indices above the base line in the late-1990s means that overall well-being has improved compared to the same age and sex group in 1985.

It is possible to directly compare male and female well-being over time by looking at a disparity index. Group comparisons are computed by taking the disparity or gap in the levels of each social indicator series that was defined in 1985 as defining a base year of 100%. Absolute values of the disparities in each subsequent year then are calculated and computed as percentages of the disparity levels in the base year. The indicator-specific disparity indices for each year then are averaged across the components in each domain to arrive at the domain-specific indices. By calculating the disparity indices in this way, the interpretation of levels reported in these figures differs from the interpretation of graphs of indices discussed above. Here, a value of above (below) 100 in years subsequent to 1985 means that the absolute value of the disparity or gap between males and females has grown (declined) relative to the size of the gap in 1985.

The graphs in Figures 30 and 31 show trends in domain-specific disparity indices for the six domains of well-being as

well as for an index of overall disparity. What these figures cannot tell us, however, is which gender is doing better. Because the disparity index is an absolute measure, it is necessary to go back to the set of indicators comprising each domain in order to see who is doing better on those specific indicators. Only then does the disparity index have substantive meaning with respect to which gender is faring better.

Figure 30 shows that in 2001, in three of the seven domains (place in community, health, and educational attainment), the absolute value of the gender gap has risen above 1985 levels. Between 2000 and 2001 the gender gap in the place in community domain climbed above its 1985 level. This is due in large part to declines in the number of males receiving high school and college degrees and little change in the number of females achieving the same academic credentials. In the health domain, the gender gap can be attributed to larger differences in obesity and activity limitation rates between boys and girls in 2001 versus 1985. Females are advantaged in both indicators, showing lower rates of obesity and physical limitations than males of the same age.

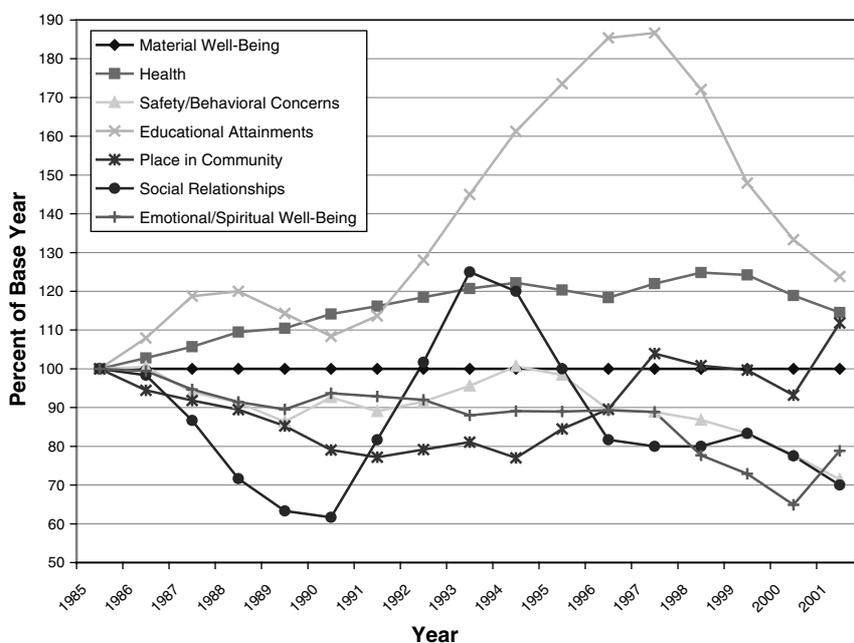


Figure 30. Domain-specific disparity indices of child and youth well-being for females as compared to males, 1985–2001.

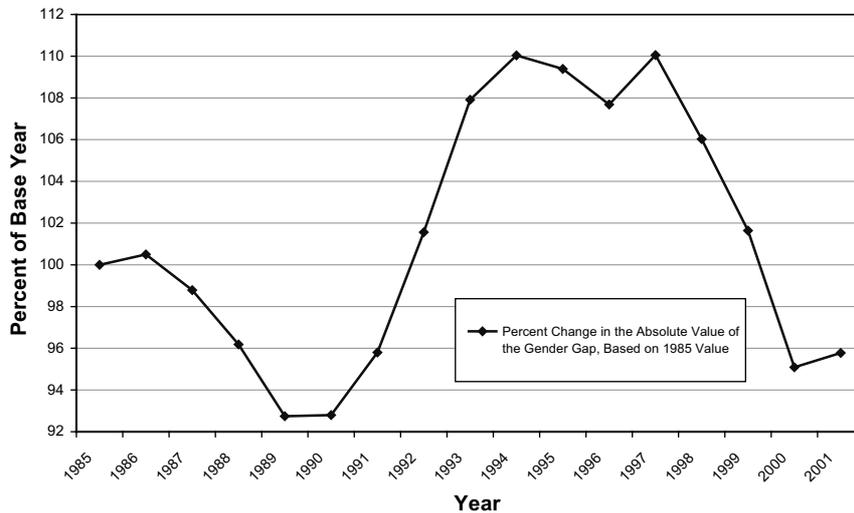


Figure 31. Gender group-specific child and youth well-being disparity index, 1985–2001.

The gender gap in the educational attainments domain grew to almost 200% of its base year level in 1985. Upon further review of the indicators that make up this domain, reading and mathematics test scores, it can be seen that female reading scores have exceeded male scores at approximately the same difference over the 15 years observed. However, mathematics scores, which initially showed no difference, have shown a very slight divergence since 1985 and currently show a two-point differential. Any gender disparity in this indicator will result in a huge increase in the absolute value of the overall domain disparity since 1985 because the base year disparity is zero. A difference of only a few points results in the large, but misleading, results shown in Figure 30 and attests to the necessity of referring to the actual indicators when assigning substantive meaning to the disparity indices.

Figure 31 shows the overall index disparity. The gender gap decreased through the late-1980s but increased through the early-1990s and reached a plateau through most of the mid-1990s. Since the late-1990s, however, the gender gap has decreased substantially to below base year levels. In fact, the data for 2001 show that the disparity between male and female well-being was actually lower than it was in the base year. These

results suggest that a convergence of well-being has occurred for males and females in recent years.

DISCUSSION AND CONCLUSIONS

The fundamental question that motivated this paper was: Do American boys and girls differ substantially in quality of life? According to our data, the clear answer is no. While boys may hold advantages in some of the indicators examined here, girls show advantages in many more. How about trends over time in well-being? Is one sex or the other faring clearly better in well-being? Have changes in well-being in recent decades favored one or the other sex? Within gender groups, we find that both boys and girls are doing better in 2001 than boys and girls in 1985. Furthermore, when between-group comparisons are made, the results presented here show a convergence in well-being.

The results reported here do not support current claims by many feminists that girls are at a disadvantage, particularly when it comes to educational attainment. If anything, it is boys who are falling behind, particularly at the higher levels of education. We want to make clear however, that our study does not include a measure of self-esteem, a central concept for many feminist scholars who study gender differences. Yet, without this important concept, we find little evidence that warrants the claim that girls are at a disadvantage when it comes to overall well-being. Rather, the data imply that males and females face similar advantages and disadvantages over time as measured by our 28 social indicators. A next step in this line of research is to examine whether the gender differences found here can be replicated in racial subgroups, as well as different age groups of children, adolescents, and young adults.

Note again, however, that the subjective nature of well-being is a limitation to this study. While most of the indicators have shown improvement since 1985, a few have shown declining trends. Quantitatively, the sheer number of positive trends outweighs the number of negative trends, resulting in an overall increase in child and youth well-being. Qualitatively, the

importance of the few deteriorating indicators may well have a significant impact on quality of life for boys and girls. For instance, the number of overweight children in the U.S. has shown an increase since 1985. Certainly with the health complications and stigmatization associated with obesity, such a trend is a serious threat to child and youth well-being. Additionally, what this study cannot show is whether the negative consequences associated with the declining indicators are subjectively less important than the benefits associated with the improving indicators for those who experience them.

ACKNOWLEDGEMENTS

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APPENDIX

Sources of data for the cwi index

1. Child poverty	US Bureau of the Census, March Population Survey, Current Population Reports, Consumer Income, Series P-60, Washington, DC: US Bureau of the Census. www.census.gov/income/histpov/hstpov4.lst , 1975–present
2. Secure parental employment	US Bureau of the Census, March Current Population Survey, Washington, DC: US Bureau of the Census, 1980–present. Special tabulation from CPS CD 1975–1979
3. Single parent	US Bureau of the Census, Current Population Reports, Marital Status and Living Arrangements, Annual Reports. www.census.gov/population/socdemo/hh-fam/tabCH-1.pdf , 1975–present
4. Median annual income	US Bureau of the Census, March Current Population Survey, Historical Income Tables – Families, Washington, DC: US Bureau of the Census. www.census.gov/hhes/income/histinc/f07.html , 1975–present

APPENDIX (Continued)

5. Health insurance	US Bureau of the Census, Housing and Household Economic Statistics Division, unpublished tabulations from the March Current Populations Surveys, Washington, DC: US Bureau of the Census. Special tabulation by Federal Intra-agency Forum. www.census.gov/hhes/hlthins/historic/hihist2.html , 1987–present
6. Subjective health	CDC, National Center for Health Statistics, National Health Interview Survey, Hyattsville, MD: National Center for Health Statistics. 1984–present. www.cdc.gov/nchs
7. Low birth weight	CDC, National Center for Health Statistics, National Vital Statistics System, Report of Final Natality Statistics, Monthly Vital Statistics Reports (1975–1996), National Vital Statistics Reports (1997–present). Hyattsville, MD: NCHS. www.cdc.gov/nchs
8. Infant mortality	CDC, National Center for Health Statistics, National Vital Statistics System, Monthly Vital Statistics Report (v25–v46), National Vital Statistics Report (v47–v49). Health, United States, 1999–2003. Hyattsville, MD: NCHS. www.cdc.gov/nchs/hus.html
9. Child and adolescent mortality	CDC, National Center for Health Statistics, National Vital Statistics System, Leading Causes of Death 2000, 2001, special tabulation from Demography Center, Duke University, 1975–present. www.cdc.gov/nchs/about/major/dvs/mortdata.htm
10. Teen births	CDC, National Center for Health Statistics, National Vital Statistics System. Monthly Vital Statistics Reports (1975–1996), National Vital Statistics Reports (1997–present). Hyattsville, MD: National Center for Health Statistics. www.cdc.gov/nchs/births.htm
11. Smoking, drinking, and drugs	The Monitoring the Future Study, Institute for Social Research, University of Michigan: Ann Arbor, MI. www.monitoringthefuture.org/data/data.html , 1975–present.
12. Crime victimization	US Department of Justice, Bureau of Justice Statistics, National Crime Victimization Survey and FBI Supplementary Homicide Reports.

APPENDIX (Continued)

13. Violent crime	<p>www.ojp.usdoj.gov/bjs/glance/tables/vagetab.htm, 1975–present</p> <p>US Department of Justice, Bureau of Justice Statistics, National Crime Victimization Survey and FBI Supplementary Homicide Reports, 1975–present</p> <p>http://www.albany.edu/sourcebook/1995/pdf/t49.pdf</p>
14. Preschool enrollment	<p>US Department of Education, National Center for Education Statistics, Digest of Education Statistics and Bureau of the Census, Current Population Survey.</p> <p>www.nces.ed.gov/pubs2002/digest2001/tables/dt007.asp, 1980–present, interpolated years 1976–1979</p>
15. Mathematics achievement	<p>US Department of Education Statistics, National Assessment of Education Progress (NAEP), Digest of Education Statistics, Trends in Academic Progress.</p> <p>www.nces.ed.gov/nationsreportcard/mathematics/trends.asp, 1975–present</p>
16. Reading achievement	<p>US Department of Education Statistics, National Assessment of Education Progress (NAEP), Digest of Education Statistics, Trends in Academic Progress.</p> <p>www.nces.ed.gov/nationsreportcard/reading/trends.asp, 1975–present</p>
17. High school completion	<p>US Bureau of the Census, October Current Population Surveys, Washington, DC: US Bureau of the Census.</p> <p>www.census.gov/population/socdemo/school/tabA-5.pdf, 1975–present</p>
18. Not working or in school	<p>US Bureau of Labor Statistics, Current Population Surveys, Washington, DC: US Bureau of the Census. 1985–present. Special tabulation from CPS CD, 1975–1979</p>
19. Bachelor's degree	<p>US Bureau of the Census, March Current Population Surveys, US Department of Education, National Center for Education Statistics, Condition of Education.</p> <p>www.nces.ed.gov/pubs2002/2002025.pdf, 1975–present</p>

APPENDIX (Continued)

20. Obesity	National Center for Health Statistics, Health United States, 2003 and National Health and Nutrition Examination Survey (NHANES), Hyattsville, MD. www.cdc.gov/nchs/data/hus/tables/2003/03hus069.pdf , 1975–present
21. Church attendance and importance	The Monitoring the Future Study, Institute for Social Research, University of Michigan: Ann Arbor, MI. www.icpsr.umich.edu/cgi-bin/SDA12/hsda?samhda+mtf1201 , 1975–present
22. Suicide	CDC, National Center for Health Statistics, National Vital Statistics System. 1975–present www.cdc.gov/nchs/datawh/statab/unpubd/mortabs.htm
23. Residential mobility	US Bureau of the Census, Series P-20, Geographic Mobility, Washington, DC: US Bureau of the Census. www.census.gov/population/www/socdemo/migrate.html , 1975–present
24. Voting	US Bureau of the Census, Current Population Reports, Series P-20, Voting and Registration, Washington, DC: US Bureau of the Census. www.census.gov/population/socdemo/voting/tabA-1.pdf , 1975–present

NOTES

¹ It is interesting to note that Gilligan, in a 1993 preface to *In A Different Voice*, says “When I hear my work being cast in terms of whether women and men are really (essentially) different or who is better than whom, I know that I have lost my voice, because these are not my questions.”

² Detailed descriptions of the indicators and graphs of their trends over time are given in the Results section. An appendix table cites the sources for all of the data series on which the indicators are based.

³ Prior to application of Equation (1) to the component time series, each is reflected so that an increase indicates an improvement and a decrease indicates a deterioration in the condition measured by the indicator. For instance, consider the case of the percent of children living in families with secure parental employment indicator (see Table I). For this time series, an *increase* in the indicator series is indicative of an improvement in the material well-being circumstances of children’s lives that the indicators in the material well-being domain are intended to measure. By contrast, a

decrease in the infant mortality rate (see Table I) is indicative of an improvement in the health circumstances of children's lives that the indicators in the health domain are intended to measure. Thus, for those time series for which a decline is indicative of an improvement in the series, we first subtract the value observed for the rate in a current year from the value in the base year. Then we compute the ratio of this difference to the value of the rate in the base year and add this ratio to 100 to obtain the percent improvement in the time series relative to the base year.

⁴ Moving averages are reported here because the fluctuations in the original series are difficult to interpret. Because the data are available for this indicator back to 1982, a 3-year moving average beginning with 1984 are used. It should also be noted that National Health Interview Study was redesigned in 1997 and data prior to that date are not comparable to subsequent years.

⁵ Data for 2001 are interpolated. Based on national data for all children under the age of 18 we predict a slight increase in the number of both males and females with activity limitations in 2001.

⁶ Obesity data are available from the National Center for Health Statistics for the years 1976–1980, 1988–1994, and 1999–2000. The rate for these periods is assigned to the midpoint of each time span (i.e., 1978, 1990, and 1999) and linearly interpolated for all other years.

⁷ It is important to remember that the NAEP data used for the mathematics and reading test scores are not available every year. Data are interpolated for unavailable years.

⁸ The smoothed trend lines are computed by taking a 3-year moving average of the true data points.

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