

**Estimating the Costs of Children:
Theoretical Considerations Related to Transitions to Adulthood and the
Valuation of Parental Time for Developing Child Support Guidelines**

Ingrid Rothe
Lawrence M. Berger
Institute for Research on Poverty
University of Wisconsin–Madison

April 2007

This report has been prepared under a contractual agreement between the Wisconsin Department of Workforce Development and the Institute for Research on Poverty. The authors thank Deborah Johnson and Dawn Duren for their expert assistance with the manuscript. Any views expressed in this paper are those of the authors and not necessarily those of the sponsoring institutions.

**Estimating the Costs of Children:
Theoretical Considerations Related to Transitions to Adulthood and the
Valuation of Parental Time for Developing Child Support Guidelines**

I. INTRODUCTION

Researchers at the Institute for Research on Poverty have studied the question of how to estimate the costs of children for many years, beginning with work by Jacques van der Gaag (1982) and David Betson (1990). The need to establish reasonable child support order guidelines policy has been the primary stimulus for this research. In the mid-1980s states began to adopt guidelines for courts to use in setting child support orders. At that time, Wisconsin and many other states established that a “continuity of expenditures model,” based on the concept that children in divorced or never-married families should benefit from expenditures that would have been made on their behalf had they coresided with both of their parents, should be the framework for setting child support orders. Under this framework, it becomes necessary to periodically evaluate alternative models and theories about how intact, two-parent families allocate resources on behalf of their children. In addition, federal regulation requires states to consider evidence on the costs of raising children when they review their child support guidelines. This paper provides such consideration.

Section II of the paper briefly reviews the existing literature on traditional methods for estimating the costs of children and discusses the benefits and shortcomings of these models. Section III reviews theories of alternative conceptualizations of the costs of raising children, with a particular focus on attempts to account for the economic and psychological costs and benefits of raising children, including impacts related to parental time use. Section IV considers parental support for children transitioning to adulthood and reviews the (limited) existing evidence concerning parental expenditures on children who are older than 18. Section V is the concluding section. The section makes no firm recommendations about how evolving research on the costs of raising children should affect child support policy, instead summarizing the research and suggesting possible policy implications.

II. TRADITIONAL METHODS FOR ESTIMATING THE COSTS OF CHILDREN

Traditional methods of estimating expenditures on children have not changed much since 2005, when the most recent paper on the costs of children (Rothe, 2005), prepared at IRP for DWD, updated the literature review on the subject. Researchers have struggled over many years to develop models and collect data to clarify how parents allocate both their money and their time among caring for their child(ren), working in the paid labor force, and leisure and other activities. Because it is not possible to directly observe what families spend on their children, it is necessary to infer these expenditures from available data. To do so requires the development of a model that shows how actual (but limited) observations of family expenditures are related to the true values of expenditures on children. Several conceptual frameworks, or models, provide valuable insight into family (and public) resource allocation. We review these below.

Ernst Engel (1857) advanced one of the earliest models, and it is still in use today. Engel observed that families with lower incomes tended to spend a higher proportion of their incomes on food than did families with higher incomes, and also that families with more children tended to spend a higher proportion of their income on food. Using this information, he developed the construct of “family equivalence scales,” hypothesizing that two families regardless of size could be said to be equally well-off if each family spent the same proportion of its income on food.

Another early model, developed by Erwin Rothbarth (1943), which also uses the construct of family equivalence scales, posited that two families of different compositions could be assumed to be equally well-off if the amount of money spent on adult goods (by the two adults in the family) was the same in each family.¹ Both of these models can be used as the basis for estimating expenditures on children by calculating the amount of income that is required to maintain an equivalent standard of

¹A more detailed discussion of the use (and utility) of these two methods for comparing expenditures of families with children to families without children can be found in Rothe, Cassetty, and Boehnen (2001).

expenditures on food or “adult goods” in families with various numbers of children, as compared to those without children.

Several other methods for calculating the costs of children under slightly different assumptions from the Engle and Rothbarth estimators have also been developed (see, e.g., Prais and Houthakker, 1955; Barten, 1964; and Gorman, 1976). While these later estimators are more sophisticated than the Engle and Rothbarth approaches, they suffer from a number of similar shortcomings, and are more difficult to estimate using existing data than are the Engle or Rothbarth estimators.²

Thus, although the Engel and Rothbarth methods have conceptual shortcomings, they are still regarded as valuable guideposts for estimating the costs of raising children. This is partly because there is fairly widespread agreement that the Rothbarth estimator produces results that are likely lower than actual expenditures on children, while the Engel estimator produces estimates that are likely higher than actual expenditures on children. Thus, the two estimators can be used to represent upper and lower bounds against which to assess various estimates.³

For the purposes of developing child support guidelines, Mark Lino has produced the most frequently referenced estimates of the costs of children, which he periodically updates in a series of publications by the United States Department of Agriculture. His methodology shares aspects of the Engel and Rothbarth methods, and serves to produce estimates that fall between the upper and lower bounds produced by them (Lino, 2006). Lino uses data from the Census Bureau’s Consumer Expenditure Survey (CES), one of the few national data sets to include relatively detailed information about family expenditures for a national sample of families. In his most recent report, Lino (2006) provides estimates based on 1990–1992 Consumer Expenditure Survey data, which he updates to 2005 dollars using the Consumer Price Index. His findings are consistent with those of earlier reports: in every instance, the

²See Lewin/ICF (1990) for a detailed description of these estimators.

³See Deaton and Muellbauer (1986) for more on this point.

proportion of income spent by two-parent families exceeds the percentage of income standard established in the pre-2004 Wisconsin child support guidelines.

Lino's estimates are based on assumptions that some expenses (e.g., children's clothing, child care, and education) should be assigned solely to children; that expenditures on food should be divided between children and adults using the proportionate shares for each member of the family food budget from the 1994 USDA food plans; and that health care expenditures should be allocated to each family member based on the budget-share data of the 1987 National Medical Expenditure Survey. Lino assumes that other expenditures, for which no empirical data exists with regard to actual allocation among family members (e.g., transportation, housing, and other miscellaneous goods and services), should be equally allocated across all family members. Although this method is almost entirely driven by available data, it is consistent with the traditional methods outlined by Engel and Rothbarth.

Several objections have arisen to child support guidelines established from these estimates. First, although almost all states refer to studies of the costs of children in their child support policy publications, many states that require that their guidelines be based on the principle of continuity of expenditures have established guidelines that require noncustodial parents to pay less than the amount suggested by estimates of expenditures on children in two-parent families.⁴ This suggests that other factors are also important to policymakers.

Second, some advocates for noncustodial parents⁵ (who are, in general, child support payers) maintain that current cost estimates fail to adequately account for intrinsic benefits associated with parenting, thereby resulting in higher payments than are fair to noncustodial parents. According to this claim, noncustodial parents reap fewer benefits from parenting because their time with their children is,

⁴See, e.g., Bassi and Barnow (1993), which presents an analysis of state child support orders for families with two children indicating that all states included in their analysis are well below the upper bound estimate of the cost of raising children, and that many states are close to or below the lower bound.

⁵Because fathers are most often noncustodial parents, these arguments are often put forth by fathers' organizations.

by definition, more limited than that of custodial parents, and this “cost” to noncustodial parents is not addressed by current child support guidelines.

Third, advocates for both low- and high-income noncustodial parents contend that guidelines that are set in reference to these estimates require unreasonably high child support payments at the high and low ends of the income distribution, even if the guidelines are appropriate for parents with moderate income. Advocates for high-income payers maintain that standard guidelines result in payments far in excess of children’s actual needs, and that factors other than continuity of expenditures should also be considered in setting child support amounts. Advocates for low-income payers reason that noncustodial parents with low or erratic incomes should not (and cannot) be expected to make payments to support their children if they are unable to provide adequately for themselves.

Fourth, children’s advocates counter these arguments by contending that all parents are obligated to provide for their children, even if the contribution is minimal or primarily symbolic. They also contend that payments required by state guidelines (over the life of the child) are actually too low, given that most payments end when children reach age 18. In contemporary society, say these advocates, children tend to rely on their parents for economic support for a much longer period of their lives (we discuss this issue below).

Finally, advocates for custodial parents argue that current estimates of expenditures on children fail to fully account for the opportunity costs of caring for children (for example, the foregone earnings of parents who leave the workforce to care for children) and are therefore underestimates of the true costs of children. Each of these arguments raises legitimate questions concerning existing estimates of the costs of children and whether child support guidelines properly account for the full range of expenditures on children.

III. RECENT RESEARCH ON ALTERNATIVE METHODS OF ESTIMATING EXPENDITURES ON CHILDREN

Research on factors such as the intrinsic value of children and the “time costs” of parenting has been ongoing, and alternative models aimed at incorporating these factors into estimates of the costs of children (e.g., Becker, 1991; Bourguignon, 1999) have been proposed. Unfortunately, however, the data needed to empirically test these models has not been collected systematically in the United States, thereby impeding further discussion of them in the child support literature.⁶ Future research in these areas, some of which is already underway, is likely to lead to improved conceptual models and/or better empirical evidence on the cost of raising children. In particular, researchers have begun to examine more directly the ways in which parents allocate time among work, child care, home production (cooking, cleaning, etc.) and other activities such as leisure (that do not involve children). Additionally, recent work on conceptual frameworks for estimating expenditures on children explicitly considers ways in which the intrinsic value of children to parents may be modeled.

Parental time. There are two principal reasons to consider parental allocation of time in regard to the costs of children. The first relates to whether one or both parents reduce their time spent preparing for, or in, the workforce in order to care for children, and, if so, how this affects their ability to provide financially for their children. An important policy question here is whether, when a reduction in workforce preparation or participation in order to provide care for children is made disproportionately by one parent, child support guidelines should attempt to compensate that parent for this reduction. A second difficult but relevant policy question is whether it matters if the decision for either or both parents to reduce their participation in the workforce was made jointly (by partners in an ongoing relationship) or individually.

The economic impact of children on a household can generally be divided into two components: (1) actual, or out-of-pocket, expenditures on behalf of children and (2) foregone, or opportunity, costs of

⁶Some estimates of the value of parental time spent with children have been made using European and Australian time-use data (see Apps and Rees, 2000).

caring for children rather than engaging in other activities such as working in the paid labor force. Traditionally, only actual expenditures on children have been considered in estimating the costs of children and calculating child support guidelines; nevertheless, real costs are incurred by individuals and households when adults reallocate their time to spend more of it caring for children and less time engaged in other activities, such as work.

Over the past fifteen years, researchers and policymakers have become increasingly interested in understanding how Americans spend their time. In 1991, Juliet Schor argued in her popular book *The Overworked American* that the amount of time that Americans spend at their jobs has increased continuously since the late 1940s, and that this was contrary to earlier expectations and in contrast to workers' experiences in Europe. However, other researchers (see, e.g., John Robinson and Geoffrey Godbey, in their book *Time for Life*) argue that many of Schor's conclusions, particularly those concerning time spent on the job, are inaccurate, and that Americans experienced more leisure time in the 1980s than they did in the 1960s.

Explanations for differences in Schor's and Robinson and Godbey's findings may be linked to the different sources of data used in the two studies, as well as to the ways the authors interpret the data available to them. A variety of data sources could potentially be used to estimate the amount of time that Americans spend on the job. Schor, for instance, utilizes data from the U.S. Department of Commerce's *National Income and Product Accounts*; Robinson and Godbey rely entirely on time-diary data, in which a national sample of individuals kept "time diaries" or logs describing their activities and the people with whom they conducted these activities, over a 24-hour period.

Time-use or time-diary data have provided the basis for much of our current knowledge about the time that parents spend either directly engaged with their children or engaged in other activities that are related to children's care. Several time-use surveys have been conducted by the Survey Research Center at the University of Michigan and under other auspices (e.g., the University of Maryland and the Mutual Broadcasting Corporation). However, data definitions and sampling techniques have varied considerably across these surveys, and time-expenditure categories are often inconsistent across data sources. For

instance, in some surveys, individuals are considered to be “providing child care” only when they are engaged in no other activity. In other surveys, it is possible to identify periods during which individuals are only engaged in providing child care, as well as periods spent with their children while also engaged in other household activities, such as ironing or cooking.⁷

In this context, a number of researchers (see, e.g., Schor, 1991; Robinson and Godbey, 1997; Bainbridge, 2002) have attempted to calculate parental time expenditures on children. Existing studies tend to find fairly large differences in the allocation of home-time use depending on the demographic characteristics of the families. Bainbridge (2002) summarizes these results as follows:

Generally speaking, fathers spend far less time on housework (including child care) than mothers. The family type and worker status matters. Parents in single-headed households have less time to devote overall than their married counterparts, even if their individual contributions are similar. In married couple households, fathers in single-earner families spend significantly less time overall (on housework) than those where the mother works. When combining housework and paid work, mothers in dual-earner families work the most on average of any group (and about 4 hours more per week than other spouses). However, mothers in part-time and single-earner households work considerably less. (p. 18)

A number of researchers have also attempted to quantify the opportunity costs of time spent providing care for children. Such calculations require various assumptions concerning the set of activities to include in definitions of time spent engaged in child care, as well as how “time” should be measured and valued. Haveman and Wolfe (1995), for instance, assume that a mother could either work in paid employment or provide child care for a total of 2,080 hours per year. They then estimate the total costs of child care based on part-time versus full-time work for employed mothers using wage rates predicted for women with similar levels of education. They find that, on average, the opportunity costs of maternal time engaged in child care were about 22 percent of the direct costs for child care. Stated in dollar terms, the opportunity costs of maternal provision of child care were estimated at approximately \$1,693 per child per year, while direct child care costs paid by parents were estimated at \$7,579 per child per year (in 1992

⁷In January 2003, the Bureau of Labor Statistics began data collection on the American Time Use Survey (ATUS), which is based on a subsample of participants in the Current Population Survey (CPS). This longitudinal study will greatly improve our ability to track and compare future trends in parents’ time use.

dollars). Over the course of the child's first 18 years, the average direct expenditures made by parents were \$504,003; by comparison, mothers' opportunity costs were \$112,560.

This estimate fell within a range estimated in an earlier study. Calhoun and Espenshade (1988) estimate that parents' foregone earnings associated with child care ranged between 7 and 27 percent of the direct costs of child care (see also Espenshade, 1984).

More recently, Bainbridge (2002) uses two different methods of estimating the value of time spent caring for a child. The first represents the "replacement cost" that would be incurred if child care were provided by a paid child care provider instead of a parent (at prevailing wages for child care providers in 1996). Using this approach, he estimates the cost of time that parents spend with their children to be \$1,740 per child per year. The second method estimates the cost of foregone wages for parents who provide child care. Bainbridge (2002) finds that parents incur \$5,600 per child per year in costs owing to forgone wages.

A number of other researchers have used actual time-diary survey data, rather than indirect methods, to estimate the amount of time parents spend caring for children. Robinson and Godbey (1997), for example, examine time-diary data from a 1985 Maryland survey and find that, on average, women who are parents spend 8.9 hours per week caring for children. By comparison, men who are parents spend 2.6 hours per week caring for children. There are also differences by parental employment status. Unemployed women spend 12 hours per week engaged in child care, compared to the 6.7 hours per week spent by employed women; employed men spend 2.6 hours per week engaged in child care, compared to the 2.4 hours per week spent by unemployed men. These figures are all based on "child care only as a primary activity," which Robinson and Godbey (1997) define as occurring "when the child is the sole focus of the adult's attention." They further report that activities such as eating meals and talking with children, which they label "secondary-activity child care," consume about half the amount of parental time that primary child care activities consume (Robinson and Godbey, 1997, p. 106). In another study, Zick and Bryant (1996), also using time-use survey data, report that such "secondary" child care adds about one-third to the total time spent with children.

Other researchers have suggested that attempts to quantify “secondary” child care are inadequate. Folbre, Yoon, Finnoff, and Fuligni (2005) argue that current methods for computing this time substantially underestimate the amount of time and energy required to care for a child. They argue that a limitation of typical time-diary surveys, and one that has changed little since their introduction in the 1970s, is that they focus on the activities in which parents are engaged, rather than the extent to which parents have responsibility for providing for children’s needs. As a consequence, time spent shopping for a child is excluded from measures of child care, as are other child-related activities, such as using the telephone to make arrangements for a child.

Folbre et al. (2005) maintain that the 1997 Child Development Supplement of the Panel Study of Income Dynamics (PSID-CDS) currently does the best job of accounting for such activities, although it restricts respondents to providing information about times at which both they and their children are awake. Using these data, Folbre and her colleagues (2005, p. 383) report that “children spend, on average, about 24 hours per week receiving active care from their mothers and almost 5 hours per week receiving active care from their fathers.” These estimates are substantially higher than those produced using other data sources and less encompassing definitions of time spent engaged in child care.

Although there is no widely accepted estimate of the amount of time parents spend engaged in caring for their children, it is evident that the amount of time is significant. Likewise, regardless of the method chosen to value this time in economic terms, it is also clear that the value of time parents spend raising children—that is, “producing the next generation”—represents a significant investment.

The intrinsic value of children to parents. Critics of current child support guidelines have asserted that focusing strictly on the direct economic or financial costs of raising children fails to account for one of the most important benefits of childrearing: the opportunity to love and care for one’s offspring, as experienced during time spent directly engaged with them. As such, these advocates argue that, when a family separates, the parent with primary placement, who is able to spend the greater amount of time with the child, receives a considerable benefit that is, at least in part, denied to the other parent, and that this benefit should be acknowledged in child support orders.

Such views suggest that models of marriage and child-rearing should explicitly assume that each parent may receive some benefit from providing child care. In theory, then, these models should incorporate variables representing the intrinsic value of children to each parent. Although this line of reasoning has the potential to inform policy decisions regarding the ways in which limited resources should be allocated between two households that were once united, it is not easy to operationalize owing to data limitations⁸ and conceptual complexity. Recent research (Phipps and Burton, 1998; Bourguignon, 1999) demonstrates that parents in two-parent households may not be wholly altruistic toward their children (and spouses). Instead, parents tend to make expenditure decisions that are based, at least in part, on the amount of income generated by each parent. For example, Phipps and Burton (1998) report that expenditures on child care tend to increase only when mothers' incomes increase, and not when increases in family income are solely due to growth in fathers' incomes.

Furthermore, the degree of altruism toward children in two-parent families may dissipate with the dissolution of the parental relationship. Willis (2004), for instance, uses collective household models to demonstrate that it may be rational for both parents to reduce their spending on children after a divorce. Del Boca (2003) directly links this line of inquiry to public policy by exploring the implications for public institutions when altruism disappears with the dissolution of a parental relationship. Results from this study suggest that allocations of expenditures on children that would be considered suboptimal within the context of marriage may be acceptable to parents after its dissolution.

These studies highlight some of the difficulties of directly modeling the intrinsic value of children. Although additional theoretical work, further modeling, and improved data on parental altruism may, in the future, have implications for improving child support guidelines, the current state of research suggests that attempts to account for the intrinsic value of children may have limited utility.

⁸The information required to fully test these kinds of models is generally not included in data sources that include detailed measures of families' financial expenditures.

IV. TRANSITIONS TO ADULTHOOD

Early adulthood has increasingly come to be recognized as a distinct stage of human development. This stage comprises the period between adolescence and “full” adulthood, during which an individual transitions from considerable economic, psychological, and social dependence on his or her parents or family of origin to relative financial, psychological, and social independence from them. Significant markers of this period include transitions out of parents’ homes, transitions out of school, transitions into work, and the formation of new families through (romantic) cohabitation, marriage, and fertility (Booth, Crouter, and Shanahan, 1999; Furstenberg, and Rumbaut, and Settersten, 2005). Historically, many of these events tended to occur over a relatively contained period of time during the late teens or early twenties following high school or college. However, over the last few decades, these transitions for some young adults have tended to take place over a more prolonged period, and the timing at which they occur now varies considerably across individuals. Furstenberg et al. (2005) describe this period as follows:

. . . the end of adolescence has become a protracted affair. Entry into adulthood has become more ambiguous and generally occurs in a gradual, complex, and less uniform fashion. It is simply not possible for most young people to achieve economic and psychological autonomy as early as it was a half century ago. Thus, the term “adolescence” is becoming socially and psychologically inexact, including as it does twelve-year-olds and twenty-something-year-olds, who may be still living at home and are economically dependent on parents . . . The notion that adolescence bridges the period between childhood and adulthood no longer works well to describe what happens as young people come of age in postindustrial economies. The timing and sequencing of traditional markers of adulthood—leaving home, finishing school, starting work, getting married, and having children—are less predictable and more prolonged, diverse, and disordered. (p. 5)

As such, early adulthood—the period of transitioning from adolescence to adulthood—can now roughly be defined as taking place between the late teens and the early to mid- thirties (Furstenberg et al., 2005).

Recognition of this distinct period of development, coupled with evidence that the transitions to full adulthood are occurring at later ages, has important implications for estimating the costs of raising children and for public policies concerning the distribution of these costs. As individuals now take longer

to complete their education or training and to fully transfer to employment, and/or as they postpone forming their own families and households, they are likely to require economic support, particularly to assist them in meeting housing, education or training, and health care related expenses, until later ages than did individuals in previous generations. Families may be asked or expected to provide such support. However, there will be considerable variation in the extent to which particular families are willing or able to do so. As such, some individuals transitioning to adulthood will be more socially and economically vulnerable than others (Furstenberg et al., 2005). Indeed, existing research suggests that growing up in a higher socioeconomic status family and having greater access to resources via that family is associated with successful transitions to adulthood, including higher educational attainment and better employment outcomes (Osgood, Ruth, Eccles, Jacobs, and Barber, 2005; Sandefur, Eggerling-Boeck, and Park, 2005). Furthermore, with the exception of education-related financial aid, there are relatively few institutional supports for young adults. An important question, then, is the appropriate age until which families can (or should) be expected to provide resources to young adults, either by choice or as mandated through child support policies. To set a context for considering this question, we review what is known about familial economic support for individuals transitioning to adulthood.

Familial economic support during the transition to adulthood. Little is known about familial support for individuals transitioning to adulthood, nor about how such support may vary depending upon the family and young adult's characteristics and circumstances. We are aware of only one study that estimates the full range of financial and, for young adults living independently, time assistance that families provide to individuals during this period (Schoeni and Ross, 2005). One additional study estimates parental contributions to college costs for children in different family types (Turley and Desmond, 2006). Each of these studies has potential implications for considering whether young adults should receive support through the child support system and, if so, how much support they should receive.

Schoeni and Ross (2005) use data from two sources, the 1988 and 1990 waves of the Panel Study of Income Dynamics (PSID) and the 1992–1993 National Postsecondary Student Aid Study (NPSAS) to

estimate the amount of familial economic assistance received by young adults (aged 18 to 34); describe differences in such assistance for individuals from higher- and lower-income families; and estimate the extent to which family support varies with the age of the young adult during the transition to adulthood.⁹ They find that, on average, parents provide considerable economic assistance—about \$38,000 (more than \$2,200 per year in 2001 dollars)—to young adults aged 18 to 34; that assistance diminishes as the young adult ages; and that higher-income families provide substantially more assistance than lower-income families. To set a context in which to consider the relative amount of this level of assistance, the \$38,000 of support (on average) that parents provide to young adults between ages 18 and 34 represents approximately 23 percent of middle-income parents' spending on children between birth and age 17 (Schoeni and Ross, 2005).

Economic support during the earlier years of young adulthood may be most relevant to considering the potential implications of these transfers for child support policy. Considering only 18- to 22-year-olds, Schoeni and Ross (2005) find that young adults aged 18 to 20 receive a mean of \$3,499 of parental economic assistance per year, and that those aged 21 to 22 receive a mean of \$3,020 in support (all figures are in 2001 dollars). However, these amounts differ considerably for young adults who live independently (i.e., those who live neither with their parents nor at college) and those who do not (i.e., those who live either with their parents or at college). For example, the 25 percent of young adults aged 18 to 20 who are living independently receive a mean of \$282 dollars of economic support from their parents per year, whereas those who do not live independently receive considerably larger amounts of

⁹Schoeni and Ross (2005) also use PSID data to explore whether variation in assistance by age can be explained by major life events such as being in school, getting married, or buying a home. For the most part, they find that assistance decreases with age and that, while most major life events are associated with economic assistance in expected directions, they do little to explain the negative relationship between assistance and age. In addition, the authors use data from the 1970 through 1990 decennial censuses to examine whether one form of familial support to young adults—the provision of housing in parents' homes—changed between 1970 and 1990. They estimate that total transfers via shared housing increased by 13 percent during this period.

assistance. Those aged 18 to 20 who are not living independently receive a mean of \$4,551 dollars of economic support from their parents per year.¹⁰

Because amounts of economic assistance received by individual young adults are likely to vary considerably according to the socioeconomic status of their family of origin, Schoeni and Ross (2005) also provide estimates by income quartile (based on the average income of a young adult's family of origin when the young adult was between the ages of 10 and 15). For the full period of young adulthood (i.e., from age 18 to 34), they find large differences in total amounts of assistance, such that those in the bottom quartile received about one-third of the assistance received by those in the top quartile. Those in the second and third quartiles received about 37 percent and 61 percent, respectively, of the assistance received by those in the top quartile. Total amounts of assistance for 18-to-20- and 21-to-22-year-olds, respectively, by income quartile were: \$2,432 and \$2,173 (bottom quartile); \$2,635 and \$2,317 (second quartile); \$3,868 and \$3,508 (third quartile); and \$6,718 and \$5,458 (top quartile).

Clearly, higher-income parents provide considerably more overall economic support for young adults than lower-income parents.¹¹ Disparities in economic support between high- and low-income families are particularly striking in the areas of housing and college assistance. The disparity in housing assistance is largely because young adults with higher-income parents tend to live in their parents' homes longer than those with lower-income parents. The disparity in college assistance owes to the greater likelihood that young adults with higher-income parents attend college and, when they do so, that they receive considerably more parental assistance than their lower-income counterparts.¹²

The evidence presented by Schoeni and Ross (2005) suggests that, on average, young adults receive substantial economic assistance from their parents. It also highlights important disparities in the

¹⁰For those young adults who are not living independently, Schoeni and Ross (2005) also estimate mean assistance received in regard to three specific categories of support: housing, food at home, and college assistance.

¹¹However, high- and low-income families provide nearly identical amounts of time assistance to young adults who are living independently (Schoeni and Ross, 2005).

¹²Schoeni and Ross (2005) estimate that among young adults attending college, those whose parents were in the highest income quartile received nearly four times the economic support received by those whose parents were in the lowest quartile.

types and amounts of support received by young adults at different ages and those who grew up in families of different income levels. However, the study does not estimate economic support for young adults by the structure (e.g., whether their parents are married) of their families of origin, which may have important implications for considering the potential role of child support policies in supporting individuals transitioning to adulthood. To the best of our knowledge, no existing studies do so. One study (Turley and Desmond, 2006) does, however, estimate differences in contributions to college costs by married and divorced parents. As demonstrated by Schoeni and Ross's (2005) analysis, college expenses are only one of several areas in which parents provide economic support to young adults. Nonetheless, by focusing on this substantial area of support, Turley and Desmond's (2006) research has important implications for considering the extent to which families of different structures provide assistance to children after high school, which may be relevant to considering the duration of child support obligations. In addition, economic support for college is likely to have particularly important implications for the future well-being of young adults, as the earnings gap between individuals with a college degree and those with less than a college education has widened steadily over the past half century (Katz and Autor, 1999). This may be particularly salient for young adults from divorced families who are less likely than their counterparts from married families both to attend or complete college and to attend elite colleges and universities, particularly if they are from low-income divorced families (McLanahan and Sandefur, 1994; Lillard and Gerner, 1999). Indeed, a compelling theoretical explanation for differences in educational levels of adults who grew up in single-parent and married families is that the former tend to have lower incomes, making it more difficult for their children to attend and complete college. Existing empirical evidence provides support for this notion (see, e.g., McLanahan, 1997).

On the whole, Turley and Desmond (2006), using data from the National Postsecondary Student Aid Study of the 1995–1996 academic year, find that low-income married parents provide somewhat more college-related economic assistance to their children than low-income divorced parents, but that high-income married parents provide considerably less assistance than high-income divorced parents.

They argue that this latter finding is due to differences in parenting styles, clauses in divorce settlements, and post-majority child support policies.

Turley and Desmond (2006) begin by estimating unadjusted differences in college-related assistance provided to young adults by married and divorced (including both single-parent and step) families. Their raw data suggest that married parents provide about two-and-a-half times as much assistance as divorced parents (\$5,101, as compared to \$1,982, per year in 1996 dollars). However, given that married parents generally have higher incomes than divorced parents, a more relevant comparison is the proportion of income contributed. Here, married and divorced parents look similar, providing 9 percent and 7 percent of income, respectively. Finally, perhaps most relevant from the young adult's perspective, they estimate the proportion of a young adult's "financial need" for college (i.e., the difference between all tuition and non-tuition costs for a young adult attending college and the total amount of federal, state, and institutional aid he or she receives) that is provided by parents. They find that married parents cover about 70 percent of this need, whereas divorced parents cover only 30 percent. This suggests a considerable disparity in the proportion of college costs that young adults from married and divorced families must cover on their own.

Of course, the raw data do not tell the complete story given that average income levels differ considerably between married and divorced parents. Thus, Turley and Desmond (2006) also provide descriptive statistics for assistance provided by married and divorced families with similar incomes. They find that, among families with incomes below \$40,000 or \$50,000 per year (depending on the measure of contributions to income), married parents contribute more in absolute terms, as a percentage of income and as a percentage of the young adult's need, than divorced parents. However, among families with incomes above \$40,000, divorced parents contribute more in absolute terms and as a proportion of income than married parents; among families with incomes above \$50,000, divorced parents contribute more as a percentage of the young adult's need than married parents. These findings lead them to conclude that

. . . while the children of lower-income divorced parents face a greater challenge in paying for their college expenses vis-à-vis children of lower-income married parents, the children of higher-income divorced parents do not. While it is relatively unusual for

divorced parents to have higher income, when this occurs, they tend to contribute more toward their children's college costs than married parents with comparable incomes (Turley and Desmond, 2006, pp. 14–15).

This conclusion is confirmed by multiple regression analyses that control for a host of background characteristics of the young adult and his or her family of origin.

Results from this study reveal that disparities between married and divorced families in parents' economic support for young adults in college vary substantially by income level.¹³ Turley and Desmond (2006) posit three likely explanations for their findings: differences in parenting styles, clauses in divorce settlements, and post-majority child support policies. With regard to differences in parenting styles, they cite prior research suggesting that parents who have the economic ability to make large contributions to their children's college costs may be more likely to do so if they are divorced than if they are married, given psychological factors associated with divorce, such as parental guilt and feelings of rejection by children, which may lead to parental attempts to "buy" their children's affection. Because this phenomenon is not relevant to child support policy, we do not discuss it further.

Of greater relevance to this report are the potential impacts of clauses in divorce settlements and post-majority child support policies. With regard to clauses in divorce settlements, Turley and Desmond (2006) conjecture that higher-income families may be more likely than lower-income families to negotiate child support payments in their divorce settlements that will last throughout their children's college years. This may have two consequences. First, children from high-income divorced families may receive greater amounts of assistance for college than those from high-income married families because divorced parents are required by legal agreements to provide such assistance, whereas married parents have entered into no such legal agreements. Second, higher-income divorced parents may be more likely

¹³A notable limitation of Turley and Desmond's (2006) study, however, is that they focus only on young adults who are attending college (a select group) and are unable to analyze differences in the probability of attending college for young adults from different family types. Prior research indicates that attendance rates are also likely to vary by the family structure and income levels of their families of origin.

to be required to provide assistance to their children during college than lower-income parents, whose legal agreements may be less likely to explicitly address college costs.

Turley and Desmond (2006) argue that post-majority child support policies may, at least in part, explain their findings. In 1996, the year of their study, nineteen states had legislation either permitting or requiring courts to extend child support beyond age 18 or to cover college expenses (Morgan, 1996, cited in Turley and Desmond, 2006). In supplementary analyses, they examined whether divorced parents in these states contributed more to their children's college costs than those living in states without post-majority child support policies. They found that, with the exception of those in the highest income quartile, divorced parents in states with post-majority child support policies contributed more toward their children's college education than those in states without such policies, and that this pattern increased with parental income. This suggests that extending child support policies past the age of majority may have important implications for supporting young adults in college and for decreasing disparities in support between young adults from married and divorced families, at least among lower- and middle-income groups.

Although Turley and Desmond's (2006) research only focuses on college-related costs, in light of Schoeni and Ross's (2005) study, it may also imply that post-majority child support policies may aid the transition to adulthood and decrease disparities in economic support for these transitions between married and divorced families.

V. CONCLUSIONS AND RECOMMENDATIONS FOR ADDITIONAL RESEARCH

Over the past thirty years, the (IV-D) child support system has undergone substantial change, some of which has been aimed at increasing uniformity and efficiency. For example, states have adopted guidelines for courts to use in setting child support orders and are now required to implement automated systems intended to increase the productivity of child support workers. Many child support orders are now subject to immediate income withholding; payments must be made to central state registries; and enforcement mechanisms, such as license and passport revocation, as well as lien placement on personal

property, have now become available to enhance child support enforcement. Automation of collection procedures also continues to expand, and states can now access information from the federal New Hires Database, as well as many other automated systems, including those of financial institutions. Partly as a consequence of these types of efficiencies, child support collections per full-time equivalent worker have steadily increased.¹⁴

Since the early 1980s, there has also been considerable interest among policy makers in assuring that individual orders for child support payment by noncustodial parents are equitable, such that families' similar circumstances receive equivalent treatment by the child support system and that treatment of families in dissimilar circumstances is fairly differentiated.¹⁵ This guiding philosophy arose from a child support environment in which divorcing couples often faced vastly different outcomes with respect to child support even when their financial and demographic circumstances were similar. Ultimately, it led to the creation of normative standards for determining child support payments that have been codified in states' child support guidelines.

Now, roughly thirty years after the initial adoption of many states' child support guidelines, courts may be finding that the guidelines do not equitably fit as many cases as they once did. Over the past five years, Wisconsin and other states have adopted changes to their guidelines that increase the differentiation among low-, medium-, and high-income payers, thereby modifying some of the uniformity that had once been thought desirable. In addition, the rate of court compliance with state guidelines appears to have leveled off and may even be declining.¹⁶ Recent evidence in Wisconsin suggests several reasons this may be occurring: (1) the incidence of (equal and unequal) shared placement, in which children spend significant portions of their time in the custody of both of their parents, has increased considerably (see, e.g., Berger, Brown, Joung, Melli, and Wimer, 2007); (2) the incidence of multiple-

¹⁴Nationally, child support collections per full-time-equivalent worker have increased from \$278,950 in 1999 to \$385,000 in 2005. Calculations by the authors are from data published by the Office of Child Support Enforcement at www.acf.hhs.gov/programs/cse/pubs/index.html#annual.

¹⁵See Garfinkel and Melli (1989) for additional discussion on this point.

¹⁶See, for instance, Rothe and Hu (2001) and Caspar, Rothe, and Yom-Tov (2006).

partner fertility is more common than previously understood (see, e.g., Meyer, Cancian, and Cook, 2005); and (3) the proportion of children in the child support system whose parents were never married has increased over the past thirty years.

Broad social understandings of what constitutes the transition from childhood to adulthood—as well as the age at which this transition is assumed to occur—are also evolving. The transition to adulthood, once expected to occur immediately following high school or college, is now increasingly viewed as a process occurring over time from approximately age 18 until the mid-30s. Recent research demonstrates that during this period, young adults receive a considerable amount of economic support from their families and do not, on average, become fully economically independent until much later than was true of previous generations.

While the research presented in this paper does not by itself suggest the need for any particular or immediate change to Wisconsin's child support guidelines, it does suggest that the confluence of changing family arrangements, coupled with changing demographics and approaches to transitions to adulthood, call for additional research to inform state child support guidelines and, perhaps, other components of the child support system. In particular, given increases in multiple-partner fertility and shared physical placements, the allocation of parental time may become an even more important consideration for calculating the financial contributions to children's care on the part of (at least part-time) noncustodial parents. Although it would be premature to make concrete recommendations in this regard, future research may inform the extent to which complex family situations may require a return to a more individualized approach to child support order-setting that would take into account the idiosyncratic nature of many families' situations. Likewise, future reexaminations of the ages at which, on average, modern families tend to curtail their economic and time-related investments in young adults, using more recent and detailed data, may help to revise child support guidelines such that they reflect parents' actual investment behaviors toward their children.

References

- Apps, P., and R. Rees. 2000. "Household Production, Full Consumption and the Costs of Children." Discussion Paper No. 157, Institute for the Study of Labor, University of Bonn.
- Bainbridge, J. K. 2002. *Who Supports Children in the United States?* Ph.D. Dissertation, Columbia University.
- Barten, A. P. 1964. "Family Composition, Prices, and Expenditure Patterns." In *Econometric Analysis for National Economic Planning*, eds. P. E. Hart, G. Mills, and J.K. Whitaker. London: Butterworths.
- Bassi, L. J., and B. S. Barnow. 1993. "Expenditures on Child and Child Support Guidelines." *Journal of Policy Analysis and Management* 12(3): 478–497.
- Becker, G. S. 1991. *A Treatise on the Family*. Cambridge, MA: Harvard University Press.
- Berger, L. M., P. Brown, E. H. Joung, M. S. Melli, and L. Wimer. 2007. "The Stability of Shared Child Physical Placements Following Divorce: Evidence from Wisconsin." Manuscript, Institute for Research on Poverty, University of Wisconsin–Madison.
- Betson, D. M. 1990. "Alternative Estimates of the Cost of Children from the 1980–1986 Consumer Expenditure Survey." Special Report No. 51, Institute for Research on Poverty, University of Wisconsin–Madison.
- Booth, A., A. C. Crouter, and M. J. Shanahan, eds. 1999. *Transitions to Adulthood in a Changing Economy: No Work, No Family, No Future?* Westport, CT: Praeger Publishers.
- Bourguignon, F. 1999. "The Cost of Children: May the Collective Approach to Household Behavior Help?" *Journal of Population Economics* 12: 503–521.
- Calhoun, C. A., and T. J. Espenshade. 1988. "Childbearing and Wives' Forgone Earnings." *Population Studies* 42(1): 5–37.
- Caspar, E., I. Rothe, and A. Yom-Tov. 2006. "The Use of Wisconsin's Child Support Guidelines: Evidence from 2000 through 2003." Report prepared for the Wisconsin Department of Workforce Development, Institute for Research on Poverty, University of Wisconsin–Madison.
- Deaton, A. S., and J. Muellbauer. 1986. "On Measuring Child Costs: With Applications to Poor Countries." *Journal of Political Economy* 94: 720.
- Del Boca, D. 2003. "Mothers, Fathers, and Children After Divorce: The Role of Institutions." *Journal of Population Economics* 16(3): 399–422.
- Engel, E. 1857. "Die Productions und Consumptionsverhältnisse des Königreich Sachsen." *Seitschrift des Statisticshen Bureaus des Koniglich Sachischen Ministeriums des Innern* 3.
- Espenshade, T. 1984. *Investing in Children: New Estimates of Parental Expenditures*. Washington, DC: Urban Institute Press.
- Folbre, N., J. Yoon, K. Finnoff, and A. S. Fuligni. 2005. "By What Measure? Family Time Devoted to Children in the United States." *Demography* 42(2): 373–390.

- Furstenberg, F. F., R. G. Rumbaut, and R. A. Settersten. 2005. "On the Frontier of Adulthood: Emerging Themes and New Directions." In *On the Frontier of Adulthood: Theory, Research, and Public Policy*, eds. R. A. Settersten, F. F. Furstenberg, and R. G. Rumbaut, 3–25. Chicago, IL: University of Chicago Press.
- Garfinkel, I., and M. S. Melli. 1989. "Use of Normative Standards in Family Law Decisions: Developing Mathematical Standards for Child Support." Discussion Paper No. 900–89, Institute for Research on Poverty, University of Wisconsin–Madison.
- Gorman, W. M. 1976. "Tricks with Utility Functions." In *Essays in Econometric Analysis* eds. M. Artis and A. R. Nobay. Cambridge: Cambridge University Press.
- Haveman, R., and B. Wolfe. 1995. "The Determinants of Children's Attainments: A Review of Methods and Findings." *Journal of Economic Literature* 33 (4): 1829–1878.
- Katz, L., and D. Autor. 1999. "Changes in the Wage Structure and Earnings Inequality." In *Handbook of Labor Inequality*, vol. 3, eds. O. Ashenfelter and D. Card. Amsterdam: North Holland.
- Lewin/ICF. 1990. "Estimates of Expenditures on Children and Child Support Guidelines." Report submitted to the U.S. Department of Health and Human Services, Washington, DC.
- Lillard, D., and J. Gerner. 1999. "Getting into the Ivy League: How Family Composition Affects College Choice." *Journal of Higher Education* 70(6): 706–730.
- Lino, M. C. 2006. *Expenditures on Children by Families, 2005*. Miscellaneous Publication No. 1528–2005, U.S. Department of Agriculture, Center for Nutrition Policy and Promotion. Available at <http://www.cnpp.usda.gov>.
- McLanahan, S. S. 1997. "Parent Absence or Poverty: Which Matters More?" In *Consequences of Growing Up Poor*, eds. G. Duncan and J. Brooks-Gunn. New York: Russell Sage Foundation.
- McLanahan, S. S., and G. Sandefur. 1994. *Growing Up with a Single Parent: What Hurts, What Helps?* Cambridge, MA: Harvard University Press.
- Meyer, D. R., M. Cancian, and S. Cook. 2005. "Multiple-Partner Fertility: Incidence and Implications for Child Support Policy." Discussion Paper No. 1300–05, Institute for Research on Poverty, University of Wisconsin–Madison.
- Morgan, L. W. 1996. *Child Support Guidelines: Interpretation and Application*. Aspen Law and Business.
- Osgood, D. W., G. Ruth, J. S. Eccles, J. E. Jacobs, and B. L. Barber. 2005. "Six Paths to Adulthood: Fast Starters, Parents without Careers, Educated Partners, Educated Singles, Working Singles, and Slow Starters." In *On the Frontier of Adulthood: Theory, Research, and Public Policy*, eds. R. A. Settersten, F. F. Furstenberg, and R. G. Rumbaut, 320–355. Chicago, IL: University of Chicago Press.
- Phipps, S. A., and P. S. Burton. 1998. "What's Mine Is Yours? The Influence of Male and Female Incomes on Patterns of Household Expenditures." *Economica* 65: 599–613.

- Prais, S. J., and H. S. Houthakker. 1955. *The Analysis of Family Budgets*. Cambridge: Cambridge University Press.
- Robinson, J. P., and G. Godbey. 1999. *Time for Life: The Surprising Ways Americans Use Their Time* (2nd ed.). University Park, PA: Pennsylvania State University Press.
- Rothbarth, E. 1943. "Note on a Method of Determining Equivalent Income for Families of Different Composition." In *War Time Pattern of Saving and Spending*, ed. C. Madge. Cambridge: Cambridge University Press.
- Rothe, I. 2005. "Recent Updates in the Literature on Estimating the Costs of Children." Report prepared for the Wisconsin Department of Workforce Development, Institute for Research on Poverty, University of Wisconsin–Madison.
- Rothe, I., J. Cassetty, and E. Boehnen. 2001. "Estimates of Family Expenditures for Children: A Review of the Literature." Report prepared for the Wisconsin Department of Workforce Development, Institute for Research on Poverty, University of Wisconsin–Madison.
- Rothe, I., and M. Hu. 2001. "Use of Wisconsin's Child Support Guidelines: A Preliminary Report." Report prepared for the Wisconsin Department of Workforce Development, Institute for Research on Poverty, University of Wisconsin–Madison.
- Sandefur, G. D., J. Eggerling-Boeck, and H. Park. 2005. "Off to a Good Start? Postsecondary Education and Early Adult Life." In *On the Frontier of Adulthood: Theory, Research, and Public Policy*, eds. R. A. Settersten, F. F. Furstenberg, and R. G. Rumbaut, 292–319. Chicago, IL: University of Chicago Press.
- Schoeni, R. F., and K. E. Ross. 2005. "Material Assistance from Families during the Transition to Adulthood." In *On the Frontier of Adulthood: Theory, Research, and Public Policy*, eds. R. A. Settersten, F. F. Furstenberg, and R. G. Rumbaut, 396–416. Chicago, IL: University of Chicago Press.
- Schor, J. 1991. *The Overworked American: The Unexpected Decline of Leisure*. New York, NY: Basic Books.
- Turley, R. N. Lopez, and M. Desmond. 2006. "Contributions to College Costs by Married and Divorced Parents." Manuscript, Institute for Research on Poverty, University of Wisconsin–Madison.
- van der Gaag, J. 1982. "On Measuring the Cost of Children." In *Child Support: Weaknesses of the Old and Features of a Proposed New System*, eds. I. Garfinkel and M. S. Melli. Special Report No. 32C, Institute for Research on Poverty, University of Wisconsin–Madison.
- Willis, R. 2004. "Child Support and the Problem of Economic Incentives." In *The Law and Economics of Child Support Payments*, ed. W. S. Comanor. Cheltenham, UK: Edward Elgar Publishing.
- Zick, C. D., and W. K. Bryant. 1996. "A New Look at Parents' Time Spent in Child Care: Primary and Secondary Time Use." *Social Science Research* 25: 260–280.