

## **Household Services: Toward A More Comprehensive Measure**

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In wrongful death cases, most court jurisdictions in the United States allow inclusion of the pecuniary value of the loss of household services as part of a claim for economic damages. Therefore, forensic economists often must determine the hourly quantity of household services that the decedent would have continued to provide to family members had the death not occurred.<sup>1</sup> One way of doing this is to ask surviving family members to describe the extent and types of services that the decedent typically provided. A listing of such services might include cutting the grass, washing cars, making household repairs, teaching children about sports activities, managing finances, making investments, moving furniture, shoveling snow, cooking, washing clothes, gardening, painting, grooming children, providing guidance and counsel to children, washing windows, general housekeeping, shopping, serving as chauffeur, nursing illnesses, and so forth. However, other family members may not know all the things the decedent did or the amount of time spent in each activity simply because they generally would not have been present monitoring them.<sup>2</sup>

To verify this information and to help ascertain what amount of services the decedent most likely would have continued to provide in future years, especially if the family's size and composition are expected to change over time, economists rely on various studies of household services. "These studies involve preparing a list of services and a time study sheet that is then taken into a sample of homes (i.e., households) of various sizes and used to record precisely the type of work and the time spent in accomplishing it." (Martin, p. 6-3) Unfortunately, these studies define the scope of household services in such a way as to place most if not all the emphasis upon the measurement of *physical chores* such as cleaning, shopping, cooking, home repair and maintenance. That this methodology is narrow to the point of undercounting the extent of household services has been recognized by a number of authors.

One careful delineation of the scope of such nonmarket activities was undertaken by King and Smith who adopted "a very narrow definition of nonmarket time" to include "only those activities traditionally associated with housework-the time spent preparing meals, cleaning the house, laundry, shopping, home repairs, and childcare." (King and Smith, p. 60) They went on to explain that most of the household activities excluded from their analysis serve to benefit the decedent only (e.g., entertainment, hobbies, sports) or benefit the broader society (e.g., political activities). The reasons used by King and Smith in adopting a restricted interpretation of household services were twofold:

First, even in states where full economic loss is the mandated principle, most litigation focuses on the activities we included. While we believe that this limited focus should be reconsidered, it remains the overwhelming norm in litigation practice. Second, loss to survivors is the dominant objective in most states; thus, most courts consider only activities from which survivors would have benefited directly. (pp. 60-61)

The position taken in this paper is that:

1) the "limited focus" of the current "norm in litigation practice" does, indeed, exclude other important components of services and, therefore, should be reconsidered, and

2) two important services that would have been provided by a deceased parent/spouse to *surviving family members* should be incorporated into a more comprehensive measure of household services. In particular, a) companionship services and b) advice, guidance and counsel services, both of which are typically ignored in descriptions and listings of household services, should be included in order to obtain a more accurate and comprehensive measurement of the loss of nonmarket activities to surviving family members. The implication of such inclusion is that if these two activities are reasonably measurable, then valuation of household services will be higher than generally found in forensic economists' reports of damages.

This paper systematically explores this new territory and is intended to provide suggested but not definitive values for such services.

## **1. The Scope of Household Services**

Typically, the scope of household services is generally restricted to more-or-less physical-type activities such as described above. For example, Ward and Krueger state that the lost service hours could be valued by referring to the labor markets for "cooks, kitchen helpers, cleaning persons, yard workers, child care workers, and laundry workers." The authors list examples of relevant occupational titles as follows: Private Household Workers; Childcare Workers; Cleaners and Servants; Kitchen Workers, Food Preparation; Maids and Housemen; Janitors and Cleaners; Construction Trades, except Supervisors; Vehicle Washers and Equipment Cleaners; Grounds Keepers and Gardeners. (Ward and Krueger, pp. 84-85) While not suggested as an exhaustive listing, the use of such phrases as "household tasks" clearly implies a scope of household services that is primarily physical in nature.

A venerable reference in the field emphasizes that only those services that can be measured and expressed in money terms can and should be included in the calculation of the value of services:

"Economists cannot generally investigate values that lack a market equivalent." (Speiser, p. 326) Interestingly, Speiser includes the role of counselor having a comparable market occupation of "teacher, psychotherapist." But he also states:

The following items illustrate losses of valuable benefits that are not readily amenable to economic analysis and measurement: conjugal bliss (where compensable), companionship, custodianship of hearth and home.

While economic science may, in the distant future, have something useful to say about the money equivalent of these familial and social values, no attorney will find it practical to seek an economic appraisal of them. They are roughly on a par with pain and suffering: in some jurisdictions they are compensable but the magnitude of compensation is presently most properly left to judge and jury. (p. 326)

But what, exactly, is measured by the studies upon which economists generally rely to value household services? The well-known Michigan Panel Study of Income Dynamics (PSID) regularly gathers information about time spent on housework by tabulating responses to the question: "About how much time do (you or your spouse) spend on housework in an average week? (I mean time spent cooking, cleaning, and doing other work around the house?)" (Morgan, 1985, p. 48) Again, it is clear that physical chores and housework activities, which encompass only a fraction of household production, are the intended focus of the question. It is narrow in scope in that it excludes hours spent shopping, administering medical care, managing household finances, and (probably) some fraction of yard, elder and childcare." (Douglass et. al., p. 32) Such data are further biased downward because only the primary activity during any given time period is counted. Yet, "two activities can occur at the same time (for example, cooking while watching over children)." The household work hours measured in the Michigan surveys "reflect only the primary activity." (Peskin, p. 266)

Other household level sources include the time data collected in Syracuse, New York, by Cornell University in diary based surveys in the late 1960s and 1970s, and a 1978 survey of 500 households in South Carolina. According to Douglass et. al., in these data bases:

only primary (major) activities, including primary childcare (play, instruction, feeding, and cleaning), are

consistently reported. Secondary activities, which are subordinate and undertaken simultaneously with primary tasks, are not recorded. Child supervision is grossly underestimated because it is treated mostly as a secondary activity produced jointly with primary task outputs (such as cooking and cleaning) and leisure. (Douglass et. al., pp. 26-27)

These well-known surveys, while varying in the scope of what is considered household production, do not specifically attempt to measure the extent of the two services identified above, namely, the quantity of companionship services, and the quantity of advice, guidance and counsel services, except that the latter may be included to some extent in parental "instruction" of children.

## **II. Omitted Yet Measurable Service Components**

It turns out that the two components of household services being discussed, i.e., companionship services, and advice, guidance and counsel services, *can* readily be assigned equivalent market occupations and corresponding wage rates. Moreover, they are sufficiently large in magnitude that their omission results in serious underestimation of the value of household services.

### **A. Advice, counsel and guidance services**

The services of advice, counsel and guidance may be defined as the provision of helpful opinion, advice and information to one's spouse, children and elderly parents, as the need arises, in the areas of family problems, finances, and personal relationships.

Now, the critical question to answer is whether or not these services are omitted in oft-cited studies and data sets. The PSID national time-use surveys do include tabulation of the following services: helping/teaching children learn, fix and make things; helping with homework; instructing children, giving orders; disciplining children; reading to children; conversing with household children; indoor playing with children; coaching/leading outdoor activities; outdoor playing with children; unpaid babysitting, and other childcare. (Leonesio, p. 54) The Gauger and Walker study at Cornell University included "childcare" services. While several of the services included simple babysitting or caretaking, it is clear that various forms of advice to children are included. However, no mention is made of the provision of any sort of guidance or advice to adult family members such as a spouse.

In a study of the effect of taxation on the allocation of household time between household work and labor market work, which used the 1976 Michigan Income Dynamics data set, Leuthold states that because "the distinction between

housework and childcare is not always clear, hours of housework and childcare were added together ... and labeled hours of home production." (p. 389)

## **B. Companionship services**

Companionship is defined here simply as the *presence* of another person during one's daily activities. Such companionship provides a sense of security and reassurance that is decidedly absent when activities are undertaken alone. It is critical to the definition *not* to include consortium, intimate relations, love and affection. Rather, companionship services are more akin to those provided by a "pal" or acquaintance who provides a reassuring presence such as when one goes shopping with another person and seeks the opinion of the other in making purchasing decisions, or when acquaintances attend a movie, play cards, or take a stroll together. In an important sense, therefore, the primary purpose of companionship is to relieve loneliness. Companionship services require the presence of another person but not any particular physical work activity or intimacy.

In the case of family members, the task is to separate companionship services from other more personal and intimate services provided to one another. This may be accomplished by ascertaining the hours that family members would have spent together in various activities that would have otherwise been done alone. So, if a couple went bowling together for two hours each week, or shared dinner one hour each evening, or went shopping together on the weekends, these would be the sort of companionship services that would be lost with the death of one of its members.

Household services studies and data sets generally do not include any sort of measure of companionship services. An examination of the various categories listed in the studies of household services reveals a lack of inclusion of anything close to companionship. In fact, several authors specifically include it as among the "unmeasurable" household activities.

## **C. Measurement issues**

Advice and companionship services are generally lumped together with those services that are believed to be immeasurable because they have no close market proxies:

If the homemaker is removed, then the continuity for the children created by her presence, the love and affection, the security, the companionship, etc., may also be removed. None of these services have purchasable market equivalents and are difficult to include in replacement-cost calculations. (Hauserman and Fethke, p. 253)

*The key consideration, therefore, is whether or not there exist markets that provide largely comparable services for a fee or wage.* In at least one jurisdiction, the State of New Jersey, the court has recognized the measurability of such services. With respect to advice, guidance and counsel, Chief Justice Robert Wilentz has ruled:

... it is the loss of that kind of guidance, advice and counsel *which all* of us need from time to time in particular situations, for specific purposes, perhaps as an aid in making a business decision, or a decision affecting our lives generally, or even advice and guidance needed to relieve us from unremitting depression. It must be the kind of advice, guidance or counsel that could be purchased from a business adviser, a therapist, or a trained counselor, for instance. That some of us obtain the same benefit without charge from spouses, friends or child does not strip it of pecuniary value. (Supreme Court of New Jersey, *Green v. Bittner*, 85 NJ 1, 1980, p. 14)

Similarly, companionship is distinguished from consortium in that people are able to hire paid "companions," usually practical nurses or paid companions, from a nurses registry service for the purpose of having some one accompany them while shopping, help them obtain transportation, and generally be a companion to them. The basis for such a loss has been described by Chief Justice Robert Wilentz as follows:

Companionship, lost by death, to be compensable must be that which would have provided services substantially equivalent to those provided by the companions often hired today by the aged or infirm, or substantially equivalent to services provided by nurses or practical nurses. And its value must be confined to what the marketplace *would* pay a stranger with similar qualifications for performing such services. (Supreme Court of New Jersey, *Green v. Bittner*, 85 NJ 1, 1980, p. 12)

It is obvious that Judge Wilentz explicitly specified the measurableness of these services by reference to the relevant markets for them. For advice, guidance and counsel services, then, the closest market proxies are business advisers, therapists, or trained counselors. To this listing may be added other related professions such as marriage and family counselors, teachers, and social workers. For companionship services, the closest market proxy is practical nurses.

It is interesting to note that court opinions in earlier decades of this century specifically omitted "companionship" as a recoverable component of economic damages. For example, in *Michigan Central Railroad Co. v. Vreeland* (1913), the Supreme Court specifically referred to the "loss of the society and companionship" of the decedent as being "inestimable," i.e., not subject to measurement. That the courts have been changing their view is a reflection of the development of new markets for "paid companions," especially for the elderly, which may be attributed to both steadily increasing life expectancies of the population and rising living standards throughout this century.

The next sections of the paper examine how economists may measure the hourly value of these services as well as their quantity. It cannot be overemphasized, however, that our ultimate findings are more suggestive than definitive because, as noted below, valuation must be tailored closely to the past and anticipated family relationships of each case.

### **III. Determining an Equivalent Market Wage**

#### **A. Advice, guidance and counsel services**

For advice, guidance and counsel services, wages of the cited market proxies and reasonably-related occupations are examined. Table 1 shows the results of our search. The range of hourly wages is from \$8.49 for residential counselors to \$27.25 for business teachers. To obtain a useful hourly figure, the figures in the table are averaged to generate an approximate hourly wage of \$15.60 in 1996 dollars, which is a reasonable estimate of the national replacement cost of advice and counsel services lost to family members as a result of a family member's death.

It should be noted that the occupations listed in the table do not include highly-compensated professionals such as psychiatrists, stock brokers or lawyers. The reasons are that these occupations a) require a very high level of education and training that would not typically be a characteristic of average Americans, and b) provide highly specialized advice that would go beyond the type of advice and counsel that family members would typically provide to one another.

The forensic economist using these data would very likely want to target the values to the market or region in which the family resides. (This is one of several instances demonstrating the need to tailor the analysis to each specific case.) The data source cited for Table 1 includes wage information by state, so some degree of tailoring is possible. And the selected average hourly wage value would then have to be adjusted to take into account changes in wages over time.

#### **B. Companionship services**

For companionship services, New Jersey courts often accept use of the wages of paid companions. These workers may be hired from a nurses registry service for the purpose of having someone accompany them while shopping, help them obtain transportation, and generally be a companion to them. I have often conducted telephone surveys of nursing care services in the geographic region of the plaintiff in order to estimate a local rate for the wages of paid companions.<sup>3</sup>

In contrast, if one wanted to use data from national sources, the wages of reasonably-related occupations could be used as market proxies. Table 2 summarizes our findings of the median wages of four such occupations.

Table 1

Hourly Median Wages of Advice-Related Occupations, 1996\*

Occupation	Wage	Explanation/Comment
Social Workers, Except Medical and Psychiatric	\$13.08	Counsel and aid individuals and families requiring social service assistance
Human Services Workers	\$9.56	Run programs to resolve substance abuse and human relationships
Clergy	\$12.67	Provide spiritual and moral guidance and assistance to members
Residential Counselors	\$8.49	Counsel residents in identifying and resolving social or other problems
Loan Officers and Counselors	\$15.58	
Tax Preparers	\$14.52	Prepare tax returns but do not have background of an accredited accountant
Business Teachers, Postsecondary	\$27.25	Hourly wages adjusted to reflect a 9.5 month work year
Financial Managers	\$23.34	Includes managers in banks who advise on credit and investment policy
Instructors and Coaches, Sports and	\$8.87	Instruct or coach groups or individuals in the

Physical Training		fundamentals of sports
Instructors, Nonvocational Education	\$11.41	Teach or instruct out-of-school youths and adults in courses other than those that lead to an occupational objective
Teachers, Elementary School	\$20.82	Hourly wages adjusted to reflect a 9.5 month work year
Teachers, Secondary School	\$21.71	Hourly wages adjusted to reflect a 9.5 month work year

\*Taken from U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Employment Statistics*, 1996 National Occupational Employment and Wage Date, <http://stats.bls.gov/oes/national/oes> (data became available late in 1997).

Table 2  
Hourly Median Wages of Companion-Related Occupations, 1996\*

Occupation	Wage	Explanation/Comment
Personal and Home Care Aides	\$6.48	Keep house and advise families regarding nutrition, cleanliness, etc.
Licensed Practical Nurses	\$12.00	Care for ill, injured, convalescent, and handicapped persons
Home Health Aides	\$7.51	Care for elderly, convalescent, or handicapped in patient's home
Nursing Aides, Orderlies, and Attendants	\$7.46	Answer call bell, serve food, feed patients, set up equipment, etc.

\*Source: see Table 1.

Given the range of earnings values in Table 2, from \$6.48 for Personal and Home Care Aides to \$12.00 for License Practical Nurses, to obtain a useful hourly figure the mean of the figures is calculated, thereby generating an approximate hourly wage of \$8.36 in 1996 dollars, which is a reasonable

estimate of the national replacement cost of companionship services lost to family members as a result of a family member's death.

The difference between this range of wages nationwide and that of paid companions from nursing registry services in New Jersey (cited above) is very wide, with the New Jersey rate being nearly twice as high. One important explanation for the difference is that the New Jersey rate is charged for hourly services as needed or requested per day or week, whereas the national figures include weekly and annual full-time wages of persons working in various institutions. A second reason is that the New Jersey rate was obtained from nurses registry services, most of which are independent and profit-making firms, and thereby incorporate the costs of operating such firms. A third reason is the difference in costs of living among regions of the country, with the northeast having higher-than-average living costs and wages. It is important, therefore, to examine these differences in order to develop a reasonable basis for determining the appropriate wage rates. Again, care by the analyst to match the local conditions of any given case is imperative.

For purposes of litigation, forensic economists typically attempt to value the replacement labor costs of lost services. From that perspective, what is relevant is not the annual wage of a comparable worker but the hourly wage to provide specified services for several hours per week. Therefore, the hourly charges for paid companions from nurses registry service firms may be the most appropriate wage rate to use. Of course, this implies that the forensic economist would have surveyed such firms in the relevant geographic area in order to ascertain the hourly rates. For the expository purposes of this paper, however, the national rates cited previously are used.

A related valuation issue is whether or not the average market wages cited understate or overstate the hourly values of both services. The literature has noted that the market wage may overstate the value of similar home produced services because the market wage rate represents the value of specialized, "professional" labor services the quality of which is likely higher than that of a husband or wife who provides similar but nonspecialized services. A countervailing argument is that market-substitute labor is generally an inadequate replacement and only a rough proxy for the services provided by a husband or wife in the home.

To address this valuation problem empirically, an interesting study was undertaken by Dulaney et. al. A survey of 175 Missoula, Montana urban households was undertaken to focus on each household member's assessment of the quality of his/her household's output compared with the quality of the same things available in the marketplace. The authors concluded that:

... for the total sample the perceived quality of household output exceeds the quality of alternative

market purchases for all types of output. The preference for household production is strongest in the case of childcare, suggesting that babysitting and other childcare services are regarded as poor substitutes for parental care. (Dulaney et. al., p. 123.)

While not resolving the problem in a definitive way, these results weigh the evidence in favor of the position that the market wage estimates developed above for both companionship services, and advice, counsel and guidance services, very likely understate their value to households.

#### **IV. Determining the Quantity of Hours**

Unfortunately, both companionship services and the services of advice, counsel and guidance have not been included explicitly in studies that have attempted to measure the quantity of time devoted by various family members in providing services to one another. Until a reputable study is undertaken and its results published, therefore, forensic economists must rely on indications found in scattered studies (cited below) as well as our intuitive and experiential knowledge to develop reasonable, conservative estimates in any given litigated matter. With respect to both advice and companionship services, Table 3 gives our *suggested quantities* for various family profiles.<sup>4</sup>

As an example of how these values were estimated, consider the first row of the table dealing with a husband and wife family unit. With respect to advice and counsel, the assumption is made that discussions between the two about family matters, personal problems, business, house and work decisions, finances and other matters affecting the two and requiring advice, counsel or guidance, total approximately one (1) hour per week. It may be reasonably assumed that such advice by a now deceased spouse would have been proffered in small increments during the week, depending on the actual lifestyle and living pattern of the couple. Detailed information about the family, of course, would serve to lend credence to the number of hours assumed by the forensic economist.<sup>5</sup>

Reference to studies describing typical family member interrelationships also are instructive. For example, Lawton, Silverstein and Bengtson (1994a) analyzed national data on 1,500 adults aged 18 years and over. Over half the respondents lived within an hour of either parent. Frequency of contact was measured as the reported number of phone calls and visits with each parent, with 68% reporting at least weekly contact with mothers and 20% reporting daily contact with their mothers. Contact with fathers was less frequent. (The latter point was borne out by a study by Spitze and Miner.) Higher educational attainment appears to lead to less intergenerational contact. (Lawton, Silverstein and Bengtson (1994b) and Bengtson and Harootyan.)

A very rich data source on Canadians was published in 1991 that described, among other findings, the amount of time spent by parents on primary childcare activities. (Harvey et. al.) To obtain an estimate of advice and counsel services offered by parents to children, two specific types of childcare activities are considered, namely, "help, teach, reprimand children" and "read or talk with children." The data reveal that fathers spend a little over 13 hours per week (1.9 hours per day x 7 days) and mothers allocate about 11 hours per week (1.6 hours x 7) to such activities. (p. 59) Further breakdowns of the data are presented by labor force status, age group of parents, size of community and the ages of children living at home. (p. 61) It should be noted, moreover, that these are service hours over and above various other childcare activities such as physical care and play time.

Regarding the provision of companionship services among spouses, actual family living arrangements prior to the death would serve to establish a reasonable basis for the quantity of hours of companion services the decedent would have continued to provide the surviving spouse, but for the death. In the first row of Table 3, an assumption of approximately three (3) hours per day is made, representing the companionship time that the decedent would have provided to the surviving spouse during the week, including weekends.<sup>6</sup>

It is very important to recognize, however, that the number of hours assumed in any particular case will be a function of the known facts, especially the type of relationship that existed among family members, the family's history, as well as their ages and respective educational attainments prior to the death. For example, for persons 70 years of age and older, one study found that 16% of whites surveyed and over 30% of blacks surveyed lived with their adult children. (Choi) Such living arrangements, if applicable in a particular case, could affect appreciably the quantity of hours of services provided among family members that is assumed by the forensic economist. In a national survey of persons over the age of 65 with surviving children, 53% reported last seeing their child "today or yesterday." While this figure for 1975 is substantial, it was lower than the 65% reported in 1962. However, in 1975 24% reported last seeing their child "two to seven days ago," which was an increase over the 18% reported in 1962. These data are further subdivided by sex and age group of the elderly parent. (Shanas)

An NBER study concluded that the main determinants of the amount of time given to parents by adult children appear to be the parent's age, reported health, and institutionalization status, and the children's age, health and gender. Economic variables such as wage rate and income level play a rather insignificant role in the provision of time. (Boersch-Supan et. al.) Another study found that higher levels of nonlabor income decrease both the probability of adult children providing parental care and the intensity of care provided to elderly parents. (Pezzin and Schone) Frankel and DeWitt, as well as DeWitt, Wister and Burch, found that geographic distance among Canadians was the most important predictor of all forms of contact by parents with the two oldest adult children.

Similar results were obtained for a large metropolitan area in western New York. (Krout) The time-use study of Canadians cited earlier (Harvey et. al.) contains data on the hours spent with "social contacts" that could readily be interpreted as companionship services.

It should be emphasized, also, that the hours assigned to advice, counsel and guidance services should be conservative, especially in cases of claims for losses to children upon the death of a parent because there may be partial overlap with "childcare" services often included in published household services data sets.<sup>7</sup>

### V. Valuing the Services

By bringing together the hourly wage estimates and the suggested quantity of hours, a series of annual estimates is developed, expressed in 1998 dollars, of the value of companionship services and the value of advice, guidance and counsel services for various types of wrongful death claims. (To generate current 1998 dollar figures, the wages given in Tables 1 and 2 for 1996 are increased by 3.0% per annum. This yields 1998 estimated wages of \$16.55 for advice services, \$8.87 for companionship services.) These are presented in Table 4.

Based on the methodology suggested in this paper, it seems clear that a dependent child loses a substantial amount of services upon the death of a parent, especially a mother. This parallels the pattern of loss of other household services as given in various published survey data sets. What is perhaps the most dramatic finding is the substantial loss of companionship services suffered by a husband (or wife) when the wife (or husband) dies. *When the value of these services is added to the value of the physical household services lost, the total expanded value of the loss of household services becomes significantly greater in magnitude and, in many cases, may be comparable to the measured loss of earned income of the decedent.* This is the microeconomic analog of what would happen on a macroeconomic scale to our national income accounts should household production be included in a more comprehensive measure of gross domestic product, but without the many problems associated with such macroeconomic measurement. (Chadeau, p. 87)

Table 3  
Suggested Hourly Quantities\* of Services

From deceased	To surviving	Advice & Counsel		Companionship	
		per week	per year	per week	per year
Husband/wife	Wife/husband	1	52	20	1040
Mother	Dependent	4	208	20	1040

	child				
Father	Dependent child	2	104	10	520
Mother/father	Emancipated child	0.25	13	1	52
Child	Elderly parent	0.50	26	1	52

\*Estimated by author. See narrative for explanation.

Table 4  
Estimated, Suggestive Annual Values of Advice & Counsel Services and  
Companionship Services, 1998 dollars\*

From deceased:	To surviving:	Advice/ Counsel	Companionship	Totals
Husband/wife	Wife/husband	\$ 881	\$9,225	\$10,106
Mother	Dependent child	3,442	9,225	12,667
Father	Dependent child	1,762	4,613	6,375
Mother/father	Emancipated child	215	461	676
Child	Elderly parent	430	461	891

\*Based on data in Tables 1, 2 and 3.

## VI. Conclusion

This paper does not purport to give definitive values to the losses of companionship services and advice, counsel and guidance services. Rather, it presents an argument for their inclusion in a more comprehensive measure of household services, and it explains a methodology for measuring their value, especially the critical element of comparable market wage rates to assign to both types of services. The estimated values are suggestions based on reasonable assumptions regarding both the types of services provided by family members to one another and the quantity of time devoted to them. The analyst in any given case, however, must take steps to develop reasonable estimates of the quantity of hours of these services such as has been demonstrated in this paper.

Greater progress will be made, moreover, when Michigan University's PSID and/or other national surveys of household time usage begin to incorporate specific questions regarding the amount of time devoted to giving advice and counsel to various other family members, and the time spent with one another as companions--no more and no less. This would present analysts with an opportunity to more accurately determine the replaceable value of a more comprehensive measure of lost services in wrongful death cases.

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<sup>1</sup> This discussion is limited to the "specialist-cost approach" to the estimation of household services, as identified and discussed by Douglass et. al. This approach, also called the replacement cost method, the market alternative cost method, the direct output approach, or the labor value approach (see Dulaney et. al.) "is more accurate than pricing hours with the wage of a housekeeper, and less controversial than pricing hours with an opportunity wage." (Douglass, p. 28)

<sup>2</sup> Other difficulties associated with this approach are explained in Dulaney et. al.

<sup>3</sup> For example, in 1997 I surveyed 10 care facilities in the Bergen/Passaic region of New Jersey and obtained a weekday rate of \$15.30 per hour and a weekend rate of \$16.70 per hour.

<sup>4</sup> In the interests of simplicity, other household profiles could have been included but were not. In particular, claims by siblings of a decedent might sometimes be as legitimate as those of parent or child, depending on the peculiar circumstances of a case.

<sup>5</sup> Some colleagues have suggested that a "family expert" be engaged to interview family members to establish a defensible foundation for the quantity of hours that would have been devoted to the services we have been discussing. Alternatively, forensic economists would have to take careful steps via interviews and/or questionnaires to quantify the hours of these services for a particular individual.

<sup>6</sup> A colleague has suggested that even sleep time incorporates some degree of 'security' services to a spouse and that, therefore, my estimates understate the quantity of companionship services. The median wage of guards and watch guards in the United States is \$7.32 per hour.

<sup>7</sup> Olson and Rodgers argue that advice, counsel, and companionship services are, to a considerable degree, jointly consumed and, therefore, valuation of the full loss should not be divided by the number of surviving family members but should be fully assigned to each family member.

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