Reprinted with permission from the Journal of Forensic Economics

Journal of Forensic Economics 7(2), 1994, pp. 179—191
© 1994 by the National Association of Forensic Economics

Valuing The Life Of A Child: Broadening The Investment Approach

Thomas R. Ireland and John O. Ward*

I. Introduction

In a series of four short papers, we have argued that the real value of a child to parents lies in the "companionship. . .guidance. . .counsel. . .and support" a child is likely to render to his parents over a normal lifetime. It is not based on financial support or the specific dollar values of services or support a child might provide to parents, which are relatively small in comparison to the losses parents suffer when a child is wrongfully killed. As such, approaches to valuing parental loss resulting from loss of the life of a child that are based on portions of estimated lifetime earnings of the child and the value of specific household services a child might have provided to parents provide little useful information. Our argument was that parental investment in a child is a much more meaningful indicator of the value parents place on a child than any estimate of lost services and financial support. In this paper, we seek to broaden the concept of the investment approach to consider a variety of problems not addressed in our earlier papers.

II. The Investment Approach—An Overview

The investment approach is based on a presumption that parental loss in the event of the loss of a child consists of the flow of relational values the child would have provided to parents if the wrongful death had not occurred. This flow consists of two broad categories: 1) the benefits of companionship, counsel, guidance, emotional support and dynastic elements[1]; and 2) direct financial contributions and household services the child might have made to parents once old enough to do so. During the past century, the relative weights given to these two types of benefits have changed significantly. One hundred years ago, it was commonly thought that parents had children for the labor they provided and for old-age support. Indeed adoption laws in the 19th century were primarily designed to minimize the exploitation of adopted child labor. In modern society, children are much more of a financial liability to parents than any kind of labor asset. In modern society, the primary emphasis is on relational values of the child to parents. Thus, from the standpoint of damages to the parents in the event of the death of a

*Respectively, Department of Economics, University of Missouri-St Louis and Department of Economics, University of Missouri-Kansas City

[1]In Becker's (1981, 1991) work, there is extensive discussion of children as the mechanism for the achievement of dynastic utility in the form of a parental anticipation that unborn generations provide a kind of living monument to deceased ancestors Put another way, it is an important element in the utility that parents derive from a child that the child will have children itself and that at least the male children who continue to be born in future generations will carry on the family name. Obviously, any dynastic utility derived by parents is terminated by the death of a minor child who has not produced children

child, the focus must be relational values rather than values based on child labor.

The investment approach provides insight into the value of this flow of relational benefits through a "willingness to pay" calculation of the real and expected flow of expenditures parents were and would have been willing to make on the child if the wrongful death had not occurred. With this approach, a child is presumed to be worth at least the flow of expenditures the parents have already made plus the value of the flow of expenditures on the child the parents would have been willing to make in the future. In mathematical terms,

$$\sum \frac{B_i}{(1+d)^{(i-i_p)}} \geq \sum \frac{I_i}{(1+d)^{(i-i_p)}}$$

where B_i = parental benefit from the child in year i,
I_i = parental investment in the child in year i,
i_p = the present year,
d = the rate of discount for past and future,
N = an index of the life expectancies of the parents,
M = the year in which parental investment ends.

Then, since the left-hand side of the equation cannot be valued directly, a calculation of the right-hand side of the equation provides a lower bound for the value of the benefit flow.

The method involved in the investment approach is a rather straightforward application of the human capital analysis of child-rearing developed by Becker (1981, 1991). Becker's basic analysis was developed as early as 1960 and Posner cites this approach as appropriate and valid in *An Economic Analysis of Law* in 1977. Posner said

> [A] minimum estimate of the parents loss, which could be the basis for the award of damage to them, is their investment (of both money and time, the latter monetizable on the basis of market opportunity costs) in the rearing of the child up to the date of its death. (p. 183)

It was conceptually introduced in litigation as early as 1960 in *Wycko v. Gnodtke.*[2]

We note, however, that our approach is a refinement of the technique suggested by Becker and Posner. Ward's 1989 article in the *Journal of Forensic Economics* utilized the exact approach implied by Posner's analysis. Ireland's primary criticism, accepted later by Ward, was that the correct projected value of the benefit flow is not estimated by the amount of investment

[2]In 1960, the Michigan Supreme Court addressed the strict pecuniary standard in *Wycko v Gnodtke* The Wycko court categorized the strict pecuniary loss rule as a product of a child-labor era that was now largely irrelevant to parental goals in producing children While conceding that must be based on the pecuniary value of the child's life to its parents, the court argued that the value of the child's life also includes the value of mutual society and companionship. Thus, the Wycko court held that in addition to measuring damages as the net loss of pecuniary benefits to parents, loss could also be measured as the "lost investment" of parents Just as in the case of damage recovery for wrongful destruction of physical capital, this view holds that parents' investment in raising a child is an appropriate basis for damage recovery

to the date of the child's death, but by the value of the investment parents would have made in the child if the child had not died. Ireland's point was that a 15-year-old child is not necessarily worth three times as much to its parents as a 5-year-old child simply because the parents had invested approximately three times as much in the 15-year-old child. What the parents lost is the flow of benefits that would have accrued throughout their lifetimes, including dynastic possibilities of grandchildren and future generations, *not* the amount they had already invested.

Both actual and intended investments are used only as a proxy for the present value of the pre-birth estimated benefit flow to the parents, not the actual loss to the parents in a strict opportunity-cost sense, which could only be stated in terms of how much money it would take to make the parents as well-off as if the child had not died. In many, if not most cases, the strict opportunity-cost loss would be infinite. Thus, the investment approach is a procedure for valuing by proxy the flow of benefits to parents and it will provide incorrectly low values if future intended expenditures by parents are ignored in calculating that benefit estimate.

The essence of the investment approach is to calculate the present value of the flow of past actual and future intended time and monetary expenditures by parents as a minimum estimate by proxy of the flow of benefits lost by the parents, which cannot be directly valued because of the psychic nature of the benefits that were lost.

III. Problems with the Investment Approach

In this paper, we address a series of problems that we have encountered using the investment approach:

1. The past offset problem. If a child has been killed at the age of 15, parents have had the enjoyment of the child's companionship and perhaps the provision of some minimal household services prior to death. The investment approach calculates a proxy measure of the total value of the flow of benefits of the child's lifetime to the parents. If the child was not killed until the age of 15, the child has already supplied 15 years worth of benefits to its parents. How is this to be handled in litigation?
2. The future offset problem. The investment approach projects future expenditures parents would have made on the child as part of a minimum measure of the value of the child to its parents. However, it is immediately obvious that if the child has been killed at, say, age 12, the parents will be freed from the necessity of making expenditures on the child they otherwise would have made. Since benefits are being measured by proxy by investment costs, should it not follow that every dollar of lost benefits will be matched by a dollar of lost costs? (The answer lies in a fundamental utility transformation that usually occurs shortly after a child is born or adopted. The amount that most parents would be willing to pay to keep an existing child alive is far in excess of the amounts they considered in deciding whether or not to have the child in the first place.)
3. The special problems of infants and very young children. If a child dies very early in life, both the future flow of benefits and almost all of the flow of actual parental investments are eliminated by the

child's death. Further, since the child died at birth or shortly thereafter, the child may well be at least partially "replaceable" in the sense that the parents can create a replacement by bearing or adopting another child. In fact, a version of the investment approach is used almost non-controversially in "wrongful birth" litigation. In such cases the tort consists of non-contraception and parents can sue for the cost of raising a resulting child, including the cost of college education.

4. The special problems of the adult child. Typically, wrongful death recoveries for adults are made on behalf of the spouse and dependents of the adult. Can, and if so, how can the investment approach be used validly for parents of adult children who have lost a child through a wrongful death? Does this remain so if the child has produced children so that dynastic elements in the loss of the child are at least partially negated?
5. Deceased and divorced parent problems. Since the loss to parents depends on parents being alive and involved with a child, how does one handle the problems that arise if one parent is deceased, in poor health, or if the parents are divorced?
6. The social investment problem. The primary investment parents make in a child is direct and in the form of time and monetary resources parents use up in raising a child. But society as a whole may also make a considerable investment in a child in the form of public educational expenditures. Parents with children in public schools reap the benefits of these expenditures on the "quality" of their own children. Parents contribute to the provision of these expenditures as taxpayers. How, or should, these overall social investment expenditures or the component paid for by parents as taxpayers be considered?

This paper deals with each of these issues in turn.

IV. The Past Offset Problem

Assume for the moment that the investment proxy value of the total benefit flow from a wrongfully killed 18-year-old child is $300,000. For simplicity, assume further that the child had just reached the end of the parent's intended investment period for that child so that the $300,000 represents the present value of the parental investment in that child over the past 18 years. The $300,000 includes interest on past expenditures in the same manner as would be done in a business loss case. Thus, as an investment equivalent the child is a fully-paid investment, with the loss of a flow of relational benefits that the parents would have expected through the remainder of their own life spans.

Assume further that the average remaining life expectancy of the parents is 30 years. In this circumstance, the parents had an investment (or "pay-in") period of 18 years and had expected a benefit "payout" period of 48 years (their total expected shared life span with the child). The past offset problem arises because the parents have had the benefit of companionship, pride and other relational intangibles with the child (plus perhaps some minimal household services) during the 18 years of the child's life. In effect,

they have lost 30 of 48 years of expected benefits. How are the 18 years the parents enjoyed with the child to be considered?

These are years in which parental involvement with the child would have normally been most intense. The parents may have had the joy of seeing the child take its first steps, say its first words, have its first birthday. On the other hand, they have lost the years when the companionship of the child might have been most important, in old age when companionship is much harder to develop and maintain. A related problem is the impact of the child's death on the flow of benefits before the death of the child. Pleasant family memories may be an important part of the flow of relational benefits. It is possible that the joyful memories of the past that may have helped sustained parents during old age have been transformed by the child's death into painful memories that impose psychic costs on parents.

In a very interesting paper, Gray (1991) attempted to assess the "timing of parental returns" and essentially concluded that parental returns decline from age 0 to age 15 and then rise to their greatest value just before death of the parents. While Gray's arguments appear reasonable, we do not see any reliable statistical source for such a conclusion. We also find flaws with simple straight-line benefit valuations that would suggest that the parents had lost the present value of the future 30/48ths of the total benefit flow represented by the child. The purpose of the investment approach is to base calculations on reliable data sources rather than using interpretive utility calculations. To try to assess a correct division of the timing of parental returns is to defeat the whole purpose of the investment approach. Further, Gray's attempt to measure the timing of parental returns does not consider dynastic elements that might be involved.

Our response is to admit that there may well be a past offset in the form of benefits up to the point of the death of the child. However, how these benefits may be affected by the child's death and how evenly benefits might have been distributed through various stages of the child's lifetime relationship with parents lies outside the realm of economics. Therefore, we feel that any offsets should be determined by juries and not economic experts, though expertise developed in other fields might illuminate these questions. It is, however, the responsibility of economic experts to be clear that no allowance for such offsets have been made when presenting the investment approach.

V. The Future Offset Problem

This time, assume that the wrongfully killed child is 12 years old and that the present value of past parental expenditures is $160,000, with the present value of future intended expenditures through age 22 projected at $150,000, for a total of $310,000. Is it not straightforward and obvious that the parents have been saved $150,000 in intended expenditures and that this saving should be subtracted from the total investment value of $310,000? This question presents the single biggest conceptual difficulty posed by the investment approach. Resolving the difficulty involves two significant steps: 1) Recognizing that the investment approach focuses only on the *economic* value of the child as a consumer-durable asset when considered from a pre-birth perspective; and 2) Recognizing that once a child is born or adopted and bonded with parents, there is a fundamental utility transformation such that the child may have almost infinite value to the parents.

Before birth, having another child can be considered in conventional economic terms, implying fewer vacations, bigger housing expenditures, costs of schooling and so forth. Once born and loved, these economic factors become very secondary to the love parents develop for the child. Before birth, another child may have been worth only slightly more than an anticipated $250,000 future expenditure stream that could have purchased nicer cars, more vacations, boats and other consumer amenities for the parents. Almost immediately after birth, the same parents who barely decided to invest $250,000 in future expenditures to have the child might become willing to spend all of their assets and all they could borrow to pay for medical treatments with only a small probability of keeping the child alive. One of the virtues of the investment approach is that it separates "economic" from "emotional" components in the value of the child. The investment approach only considers "economic" components, even though it is quite obvious that many parents are willing to spend huge amounts of money based on the "emotional" components in the value of the child.

The problem that made Ireland realize that future intended expenditures had to be considered was the realization that without future intended expenditures, it would follow that parental loss would be approximately three times as great for the loss of a 15-year-old child as for a 5-year-old child (actually, with a reasonable discount rate, it is significantly more than 3 times as great). This because parents will have invested approximately 3 times as much money and time in the 15-year-old as the 5-year-old and the period of negative discounting for the 15-year-old is three times as long as for the 5-year-old. However, the conclusion that the 15-year-old is worth this much more than the 5-year-old is a conclusion that defies common sense.

The problem here, as in the case of past offsets, is that economists have no direct gage of the value of parental returns. A child is not a simple productive asset, but a highly complex asset entailing psychological and emotional issues not involved with most other assets. (Pets are an exception and many of the issues involved with investments in pets are similar to those with children.) The essence of the investment approach lies in its frank admission that economists cannot directly value the asset involved. We can only say that the child, from a pre-birth investment perspective, was at least worth as much to the parents as they were prepared to spend in raising the child to maturity. The investment approach determines the value of past plus intended future investments in the child to reflect the present value of the "economic," but not the "emotional" components in the value of the child to its parents.

The decision to have the child may be made in the cold rational terms of investment analysis, but the emotional bonding that takes place has dimensions that are in no way amenable to economic analysis. Expected costs of raising a child only represent initial criteria for deciding to have the child. Making the emotional commitment to the child is a known consequence of having the child and is considered along with other aspects of having the child prior to the child's conception. After the child is born and the emotional commitment is made, powerful emotional components exist. Thus, even though the amount of actual prior investment in the 15-year-old and the 5-year-old may be quite different, the parental loss caused by the death of either child is likely to be quite similar, a conclusion consistent with the investment approach as we use it.

Another way of putting this argument is that parents rationally consider the costs involved in having a child and make a rational decision in light of those costs. However, once the child is born and an emotional commitment is made, the costs involved in the original decision are no longer anything other than a minimal estimate of the amount the parents would be willing to pay not to lose the child. When the investment approach includes intended future expenditures, the similarity of value between the 5-year-old and the 15-year-old is re-established. We get small differences based on differences in discount periods and the 15-year-old is still somewhat more valuable than the 5-year-old, but the differences are relatively small and depend primarily on discounting and other time frame considerations.

Another rationale for including intended future expenditures is that one significant component of child-rearing is the sacrificed opportunity for career development by parents, particularly if there is a period of full-time mothering. As a mother or father invests time in children, that is time that cannot be used for career development opportunities. The consequences of this investment do not cease simply because the child has died and more time is now available for work activity. Assume, for example, that a mother left the labor market for 10 years to provide full-time mothering services to her two children. By sacrificing 10 years of work experience at that point in her career, her current earning ability in the labor market may only be 60% of what it would have been if she had not left the labor market. This 40% deficit will not go away because one of her children is wrongfully killed. That 40% is a sunk cost of child-rearing and will continue as a cost throughout her worklife even though she will not have to purchase food or clothing for the deceased child.

VI. Special Problems of Infants and Very Young Children

The most extreme form of the argument for offsets of future cost-saving occurs in the case of infants who are killed at birth or in the first few years of life. With full offset, the only real costs to be considered are the costs borne by the mother during pregnancy and shortly thereafter. Using the logic of offsets, it would appear that benefit and investment streams would seem to cancel out. The fact that the mother might have been willing to give her own life to save the life of her day-old infant would seem to be canceled out. We clearly reject that argument on the basis discussed above. The investment approach only provides a minimum estimate of what it was worth to the parent to produce the child. After carrying the child through pregnancy, the value of the child may have become infinitely greater to the parent.

There is, however, a second issue involved with infants and very young children that also arises. That is: to what extent can a child be replaced by another child? For parents who lose teenagers, the period during which they had intended to have and deal with infants is over and the fact that they could theoretically have another child is not a practical consideration. But this is a practical consideration when considering the loss to a couple who are very likely to be able to have another child in the near future.

Suppose, for example, that a given couple had planned to have three children over a 5-year time horizon, with one child being born every two years. Now, suppose that the second intended child is wrongfully killed three months after it was born. If the parents have little difficulty having

children, they can still achieve their goal of having three living children, but over a 6-year time horizon rather than a 5-year horizon. Has the lost second child been replaced by an added fourth child with an added cost of only an extra one year investment of time in the home rather than the labor market by the mother?

The possibility of child replacement in these circumstances is real. No child could fully replace the child that was lost, but the fourth child is only produced as a consequence of the death of the second child. However, these circumstances do not provide a basis for an economic expert to demonstrate any special expertise in making an assessment of the degree of replacement. An average juror can form an opinion that is just as accurate as that of an economic expert about the replaceability of one child by another. We would present evidence about the investment value of the child in a normal way, without regard to whether or not the child can be replaced by another child.

Our argument would be that the issue of offsets to parental loss because of replacement children lies in the province of the jury and not the economic expert. It is up to the jury to consider offsets that might arise because of other factors such as enjoyment by the parents of the child to the date of death and the replaceability of present child who has been wrongfully killed by a future child. These factors are relevant to a jury's award for parental loss, but it is not relevant for an economic expert to assess it.

VII. Special Problems of the Adult Child

In most wrongful death litigation involving adults, it has been the spouse and children of the wrongfully killed adult who are suing for recovery of damages. In cases where the child left a spouse and dependent children as claimants, parental claims of loss have been largely ignored. Typically, only when the adult child was unmarried have parental claims been pursued. In parental-loss cases involving unmarried adult children, parents have often brought litigation that focused on household services and financial support the child may have provided to the parents. In our experiences, recoveries have been much smaller than if the adult child had been married and had dependents.

Our argument is that the investment approach is amenable to establishing parental loss in cases of adult children in some circumstances and that this loss is in addition to and not in lieu of losses to the spouse of the decedent. However, if adult children have produced children themselves, dynastic benefits deriving from grandchildren may preclude the usefulness of the investment approach. The parents have lost the companionship of the wrongfully killed child, but their investment will still generate future benefits in the form of companionship with surviving grandchildren. Given the complexities involved, it is not likely that the investment approach will be of much value in a litigative context, even though parental losses are quite real. Some states may even preclude recovery by parents if the child has a surviving spouse or surviving children.

Particularly with respect to surviving grandchildren, there are cases in which grandparents might benefit almost dollar-for-dollar from dollars awarded to grandchildren. This implies an extended family loss function in which replaced economic losses to grandchildren provide a doubled benefit to the extended family as a whole. If so, there would be good grounds in eco-

nomic logic for a legal distinction that precluded grandparents from separately pursuing losses when legal action is initiated by grandchildren.

In the absence of grandchildren, the primary difference in parental loss between minor and adult children is that the expected benefit period becomes much more critical in establishing the value of parental loss. In dealing with minor or dependent children, the maximum apparent parental loss would occur with a 22-year-old who was just finishing college and also just at the end of the period of parental investment in the child. (If parents were paying for graduate education, of course, the period might be longer.) After this point, assuming that the child begins a self-supporting adult life on his or her own, parents continue receiving relational benefits at a substantially reduced or no cost to themselves.

Obviously, there is little difference in parental loss if the child is wrongfully killed a month after graduating rather than a month before. If the child remains unmarried and childless, the same is basically true at age 25 or age 30. As time goes on, however, several additional factors become relevant, even if the child remains unmarried and childless. First, the patterns of the child's adult relationship with its parents become more well-established. An economist is not in a position to assess these patterns, but it is appropriate for a jury to consider whether the relationship was a positive and loving relationship or a distant and troubled one. Second, the significance of the benefits already received by the parents on their investment in the child becomes greater. At some point, this effect becomes significant enough that the investment approach becomes largely irrelevant.

Suppose, for example that two parents aged 64 with a remaining average life expectancy of 20 years lose a 45-year-old adult child. Clearly, after 45 years of the child's life, there has been time for a considerable benefit payback to parents. It is also more difficult to argue that the death of a 45-year-old child creates the same sense of emptiness a parent might feel about the death of a 15-year-old child. Further, in dynastic senses, if the child was going to have children, it is likely that this would have taken place by age 45. Thus, the implied loss of grandchildren that is involved with the death of a 15-year-old is not relevant with a 45-year-old.

This means that the usefulness of the investment approach becomes increasingly speculative as the adult child grows older. For example, in the case of a 45-year-old child, the parental investment period, assuming parental investment ended when the child reached 22, ended 23 years ago. The parents have received benefits over 45 years of an expected period that equaled the parents' life expectancies at the time the child was born. Looked at from the standpoint of the parents' average life expectancy at the time the child was born, which is the expected payout period of the investment in the child, there might only be another seven or eight years of expected benefits.

Obviously, a number could still be calculated. One could calculate the present value of the last eight years of an expected 53-year payout period, assuming some sort of timed basis for parental returns. The issue is whether such a number would have any real usefulness to a jury. It is our opinion that presenting such a number would not be useful. Overall, we conclude that if a child has produced grandchildren or if the age of the child is much beyond 25, the investment approach is rendered too speculative to be useful.

VIII. Deceased and Divorced Parent Problems

The investment approach requires modification if one parent is deceased or if the parents of a child are divorced. In the case of a deceased parent, assuming no other complications, our solution would be fairly straightforward. If the parents were married and clearly both intended to have the child, parental investment was initially based on the value of the child to both parents together. If one parent is deceased, the loss to the remaining parent is clearly smaller than the loss would have been if both parents were still living. Single parents are not able to afford to make the investment that two parents together (Lino, 1990, 1991) could have made. However, the expenditure by a single parent is likely to be greater than half of the amount that both parents together would have spent. As a result, parental investment analysis based on investments by a surviving parent is likely to be an accurate use of the investment method.

If both parents are still living, but are divorced, the relationships between the child, the custodial parent and the non-custodial parent must be considered. If, for example, a father was not seeing the child and making no child support payments, it seems apparent that his losses are relatively small. In this case an investment cost valuation based on the mother as a single parent would be appropriate. If both parents were actively involved with the child and sharing the cost of raising the child, the fact of divorce is relatively inconsequential in determining parental loss and a two-parent investment approach should be used.

IX. The Problem of Societal Investment in the Child

The primary investment parents make in a child are the direct expenditures of time and income that are used in raising the child. However, society as a whole also makes a significant investment in children, both through public education and through public welfare expenditures. Programs such as Head Start, the Job Corp, Pell Grants, ADC, school nutrition and health programs are directed primarily at children with low-income parents, but expenditures are substantial on all children who attend public schools and universities. The largest source of societal investment in children is public education expenditures. This is also the source that is most evenly distributed among children regardless of income class. The range of public expenditures for elementary and secondary education ranges from $3,500 to $5,500 per capita among the 50 states.

The relative magnitudes of social expenditures on children in the United States for specific programs in 1988 were:

Maternal and Child Health	$1.6 Billion
School Health	$0.9 Billion
Elementary and Secondary Education	$167.0 Billion
Higher Education	$49.0 Billion
Child Nutrition	$6.2 Billion
Child Welfare	$0.2 Billion.[3]

[3]See Ann Bixby, "Public Social Welfare Expenditures - Fiscal Year 1988," *Social Security Bulletin*, May 1991, *54*(5), 2-15. Expenditures are for all levels of government

The issue is whether these social expenditures should be considered in a parental loss calculation. The investment approach is based on the logic that parents decided to have a child because anticipated benefits outweighed anticipated costs, but that parental bonding at birth immediately transforms the nature of the parental benefit function in such a way that most parents would be willing to pay almost any price to prevent the death of the child. However, in deciding whether or not to have the child, parents also anticipated the social expenditures that would be available if the child were born. These social expenditures have the effect of increasing the benefits parents could expect to enjoy, enhancing the quality of the child's companionship and support to the parents.

Parents, through their payment of taxes, directly contribute to social investment in the education of their children. Their willingness to pay these taxes is directly related to the benefits they anticipate from such expenditures. On the other hand, the availability of societal expenditures on a child reduces the costs parents must consider in deciding whether or not to have the child. As such, parents might not have chosen to have the child if the full cost of the child's education would have fallen on them. The authors of this paper have not yet reached full agreement about how societal investment should be handled, but our tentative conclusion is that it is appropriate to introduce the value of societal investment with the caveat that it can both increase benefits and reduce costs to parents, depending on specific circumstances of the parents.

X. Recent Legal Developments Supporting the Investment Approach

It is perhaps not surprising that Michigan, the state in which the investment approach which was first argued successfully in *Wycko v. Gnodtke* in 1960 has become the first state to codify the investment approach as part of normal state practice. In the 1993 *Michigan Compiled Laws Annotated*, under Section 2922 defining the Wrongful Death Statute, we find:

> Parents of a minor child area at least entitled to a presumption, in wrongful death case, that child was worth his keep, and the negligent act which snuffs out their child's life deprives them of service at least equal to amount of their pecuniary outlay (p. 97). *Rohn v. Stroud, 1972.*

In other states, decisions have been moving in the same direction. We cite particularly:

Langford v. Blackman in 1990. "The Texas Supreme held unequivocally that a plaintiff may recover for the loss of companionship and society as well as the loss of love, advice and comfort of the child." (790 S.W. 2d 127, *131 at 251) Following earlier Texas cases, this was an explicit decision to reject the older pecuniary rule of support the decedent might have rendered his or her parents in as far as this rule might result in negative damages.

Clymer v. Webster in 1991. In this case, the Vermont Supreme Court again cited the antiquacy of the pecuniary loss rule and cited *Wycko v. Gnodtke* as implying that human companionship between individual family members "has a definite, substantial and ascertainable pecuniary value." (156 VT. 614, *628)

Gallimore v. Children's Hospital Medical Center in 1993. The Ohio Supreme Court rules that parents of a child who is seriously hurt can win damages for the loss of that child's companionship. The court indicated that judges in Ohio have long implicitly viewed companionship as covered by the concept of "services" in the old pecuniary loss doctrine, saying, "Indeed, in these modern times, the society, companionship, comfort, love and solace between parents are the essence of that relationship, more so than the 'services' a minor child is capable of rendering." (67 Ohio St. 3d 244, *249, 617 N.E. 2d at 1052, *1056) Effectively, this brings the investment approach into applicability in cases of personal injury to a child, giving parents a standing to sue based on reduced quality of the companionship in which they had invested.

The uniformity of the direction of these citations gives no doubt that the investment approach is effectively becoming the law of the land, albeit a number of the issues considered in this paper remain open questions.

XI. Conclusion

The investment approach to valuing parental loss in the death of a child reflects both current economic developments and a fundamental change in the way the courts have viewed the role of children. The common law of 50 years ago still viewed children as producer assets, both as sources of labor and as providers of direct benefits in parental old age. The more modern view of the role of children is that of providers of companionship and emotional support to parents. Prior to the early 1900's, particularly in agricultural households, labor from children was essential in producing farm output and other food and clothing products families produced for themselves. Further, modern forms of insurance, investments and pensions were not as available for parents reaching old age. These "producer-based" elements are still important, but they are now far overshadowed by companionship and support-based motivations for child production.

The investment approach can be adjusted to deal with problems of divorced and deceased parents, the very young child, the young adult child and the issues of past and future offsets. It is, however, in most instances not suited to adult children with children of their own or older adult children in general.

References

Becker, Gary S., "An Economic Analysis of Fertility, *Demographic and Economic Change in Developed Countries*, Princeton University Press, 1960.

_____, *A Treatise on the Family*, Cambridge, MA. Harvard University Press, 1981, 1991.

Gray, Charles M., "Wrongful Death of a Child: The Timing of Parental Returns," presented at the Midwest Economic Association Meetings, April 1991.

Ireland, Thomas R. "Loss in the Death of a Child: An Extension of the Ward Analysis," *Journal of Forensic Economics*, Spring/Summer 1990, *3*(2), 73-77.

_____, "Economic Loss in the Death of a Child: An Extended Comment," *Journal of Forensic Economics*, Spring/Summer 1991, *4*(2), 241-244.

Lino, Mark, "Expenditures on a Child by Husband-Wife Families," *Family Economics Review*, U.S. Department of Agriculture, 1990, *3*(3), 2-18.

_____, "Expenditures on a Child by Single Parent Families," 1991, *4*(1), 2-7.

Michigan Compiled Laws Annotated, St. Paul, MN: West Publishing Co., 1993.

Posner, Richard A., *An Economic Analysis of Law*, Little, Brown, & Co. 2nd Ed., 1977.

Torres, Lori A., "The Pecuniary Loss Rule as an Inappropriate Measure of Damages in Child Death Cases," *Indiana Law Review*, 1985, *18*, 731-749.
Ward, John O. "Estimating Economic Loss in the Case of a Death of a Child," *Journal of Forensic Economics*, August 1989, *2*(3), 19-29.
_____, "Reflections on Economic Loss in the Case of a Death of a Child," *Journal of Forensic Economics*, Fall 1990, *3*(3), 91-94.

Clymer v. Webster (156 VT 614, 596 A. 2d 905), 1991.
Gallimore v. Children's Hospital Medical Center (67 Ohio St. 3d 244), 1993.
Langford v. Blackman (790 S.W. 2d 127), 1990.
Rohn v. Stroud (194 N.W. 2d 307, 386 MIch. 693), 1972.
Wycko v. Gnodtke, (361 Mich. 331, 105 N.W. 2d 118), 1960.