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New Directions in Student Loans: Intergenerational Implications

By Sandy Baum

This article examines the intergenerational implications of recent changes in college loan programs, specifically the PLUS Program and income contingent repayment plans. The author explores the idea of who should pay for college from the vantage point of economic theory and argues that a combination of economic approaches can best explain how college is financed today. Are there strong arguments for publicly enforced transfers from one generation to the next? Would a system of individual responsibility for financing higher education be optimal? Are there convincing economic arguments for significant parental participation in paying for college?

According to economic theory, the use of tax revenues to fund higher education, either in the form of subsidies to institutions or in the form of financial aid to students, involves a forced transfer of resources from one generation to another. It is not possible to evaluate the intergenerational effects of specific aid programs without an understanding of the philosophical, social, and economic reasons for any particular division of the burden.

As the cost of postsecondary education has spiraled, the magnitude of private, voluntary transfers from parents to children also has become an important public policy issue. We must not only be concerned with the optimal size of public subsidies to postsecondary students, we must also focus on how the private component of the expenditures is divided between generations.

Macroeconomic Inter- Generational Transfers

Theoretically, the generation now in the labor market and paying taxes could negate the long-term impact of this forced transfer by reducing voluntary transfers to their children. Decreases in parental contributions to their own children's educations or in parental bequests to children later in life, for example, might offset the public subsidies these children received for education. A total offset of this form becomes less likely, of course, the larger the public subsidy to education.

Even if the use of tax revenues to fund education does not affect the overall distribution of resources between generations, it is likely to cause members of the recipient generation to seek more education than they otherwise would. In addition, there are significant distributional differences between public and private transfers. Even if aggregate voluntary transfers are reduced in the face of public subsidies, many young people whose parents are unable or unwilling to pay for college will receive public subsidies for higher education.

Another issue is that we are asking a generation that has already been educated to subsidize education for the next generation, so failure to pay does not carry the risk of benefit loss for them. By contrast, at

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the time people are contributing to Social Security, their potential benefits are in the future. The timing of the intergenerational transfer inherent in public subsidies to higher education may therefore make them politically unpopular. Support for this system must rely more on the notion of responsibility than on self-interest. This may help explain why there seems to be more public sympathy for moving toward an individual financing model for higher education than there is for diminishing intergenerational transfers under the Social Security system.

Parents and Students

During the early 1970s, the division of the burden of financing higher education shifted markedly. Between 1970 and 1975, the share of the federal government rose from 17% to 24%, and the share borne by families declined from 48% to 39%. This decline was entirely in contributions from parents, whose share declined from 34% to 23%, while the portion of costs borne by students actually increased slightly, from 14% to 16%. Since the mid-1970's, however, the federal share has declined steadily, dipping to 11% by 1990. The family share, which includes loans to parents and students guaranteed by the federal government, returned to its 1970 level, with parents bearing 31% of the burden in 1990. The student share, which peaked at 20% in the early 1980s, fell to 18% in 1990 (National Commission, 1993, p.23). In other words, since 1980, students have borne a significantly higher portion of the costs of their educations than they did previously.

A sizable portion of the increased burden on students is a result of demographic changes in the student body. The proportion of students who are either too old to be financially dependent on their parents or whose parents are not financially secure enough to subsidize them has risen dramatically. To provide access to these new groups of students, both grant and loan programs have expanded. For independent students and those whose parents are low-income, the only choice is between public subsidy and student borrowing, not between parental support and student borrowing. Accordingly, the following discussion of the generational division of the burden applies only to the segment of college students whose parents do have the financial capacity to contribute in some way to their children's education.

The Student Model

It is not difficult to argue on economic efficiency grounds that students should bear the lion's share of the costs of higher education. Education is an investment in human capital that is expected to increase future earnings. If the rate of return to the investment is inadequate to pay off loans incurred, the investment is not efficient. A system that forces students to borrow the entire cost of their education, while assuring access to liquidity, is sometimes proposed on these grounds.

Society should subsidize students who will not reap the full social benefits of their education. Most discussions of the added benefits of higher education focus on the significant economic return to individuals and conclude that these outside benefits account for only a small fraction of the total benefits. But it is surely true that the social benefits differ for different groups of students. The social benefit of encouraging young people at high risk of unemployment or permanent exclusion

from the primary labor market to attend college is greater than the social benefit of an expensive education for those who are already well-positioned to be productive citizens. The high average private return to higher education may mask significant differences in social returns for certain subgroups.

Some additional amount of subsidy to students might also be required to prevent their under-investment in education, since eighteen year old high school graduates are not perfectly informed, rational decision-makers. Their desire for immediate gratification, thus undervaluing future benefits, may cause young people to choose the job market (or a life of leisure) over human capital investment, even if this choice is inefficient in the long run.

Even if it were an efficient model, there would be serious equity implications to the student-based model. Debt burdens would be distributed according to parental circumstances. Unless all parents, regardless of their financial means, stop subsidizing their children's education, it is those students whose parents can't pay, don't value higher education, or don't feel responsible for their children who will face high debt burdens. Although existing debt levels do not appear to affect lifestyle choices seriously, the debt levels accompanying a major shift in responsibility to the student generation could have severe repercussions on both standard of living and life choices.

The efficiency/rate-of-return framework for analyzing the generational division of the burden of paying for college ignores another vital issue, social responsibility. The idea that each individual is responsible for his or her own welfare is consistent with economic theory based on the concept of rational economic agents focusing on their own self-interest. But it is not consistent with broader social norms.

A social norm in our society prescribes parental responsibility for the welfare of children. The fundamental issue at hand is whether that responsibility extends to the provision of higher education, when financially feasible. A financing system that puts students first in line to pay is an explicit rejection of this norm, which has persisted in this country for generations. Perhaps the shift can be defended, but it should not be made lightly.

**Can Economic Theory
Explain Why Parents Do
Pay and Should Pay?**

Several theoretical approaches in the economics literature may apply to the question of the motivation of parents in paying for college. Here again, the potential conflict between a strict efficiency-based, utility-maximizing framework and the sense of personal or social responsibility arises. Perhaps only an economist would feel compelled even to raise the question of why parents sacrifice their own consumption to finance their children's education. It would be reasonable to assume that education is just one of the many items purchased (or investments made) by the family for the benefit of all or some of its members. There is a social norm that generates this sense of responsibility.

Nonetheless, it seems reasonable to investigate what economic theory can contribute to an understanding of parental contributions. How can a theory based on self-interest explain parental transfers to children, and particularly those like paying for college, which cannot

be construed as mandatory? Several possible approaches to the who-should-pay dilemma emerge from the economics literature. These include altruism, economic analysis of the family, and grants versus exchanges.

Altruism

The economic model of altruism essentially explains generosity as selfishness, simply one of many possible preferences. An altruistic person is one who is happier if another person's well-being increases. A more limited form of altruism exists when someone feels better if another individual's consumption of a particular good increases. This idea is more useful for analyzing college payment since if children choose not to go to college, parents do not usually offer a similar amount of money for them to spend as they please. Parents may believe that they are better able to determine what will maximize their children's welfare in the long-run than are the children themselves.

But only in economic models is altruism a "taste" like the taste for coffee. In reality, it is a basic human quality that is not easily incorporated into standard economic analysis. People don't "decide" how much to support their children as part of a utility-maximizing calculus. Our society relies on the idea that parents care for their children in a way that is similar to the way they care for themselves; they don't separate their children's well-being from their own in the manner required for this economic analysis of altruism.

While the economic approach to altruism is not very useful in determining the socially desirable division of the burden, perhaps it can provide some insight into why parents appear to be increasingly reluctant to subsidize their children's education. More people are just plain selfish today. Affluent divorced parents who go to court arguing that they are not responsible for paying for college certainly seem to be acting out of pure economic self-interest. If we see large numbers of financially secure parents pushing their children into unsubsidized Stafford loans instead of taking PLUS loans for which the children are not responsible, this will be a further indication that parents see their interests as separate from those of their children and that the concept of parental responsibility for providing educational opportunities is not a generally accepted part of the social contract.

The Nuclear Family as an Economic Unit

Still, it seems inappropriate to give up on the idea of the nuclear family as an economic unit. The literature on the economics of the family, which treats the family as a group of individual utility-maximizers (Becker, 1981), maintains the core concept of individual self-interest, but recognizes the particular inter-dependencies of family members. The fact that the parents may be the decision-makers and financers, while the children are the recipients of the education, makes this approach relevant.

In the context of making financial decisions for the entire family while viewing their own welfare as clearly distinct from that of their children, there are two fundamental choices parents must make. First,

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parents must decide how much to spend on current consumption and how much to save or invest to increase future consumption opportunities. Second, parents must decide how much to deprive themselves for the sake of their children. Paying for education is certainly an investment, in the sense that it increases future earning power. But because the investment is not likely to increase the parents' future consumption opportunities, the dynamics of the second choice may be more relevant.

It may be useful to think of paying for education as an alternative to a bequest, since parents may choose to spend the money on education now, or to save it and increase the size of their bequest. It is also analogous to a bequest in that, unlike money spent on clothing or entertainment, it constitutes the passing on of a form of capital, increasing the potential income of the recipients.

Much of the economic work on bequests is methodologically similar to the analysis of altruism. A common conclusion is that both bequests and transfers during the lifetime of the donors are more consistent with exchange-related motives than with altruistic motives. (See Bernheim et al, 1985 and Cox, 1987.) This strategic bequest view would suggest that we might approach the college payment question by asking how parents will be rewarded for their sacrifices. But this perspective moves us even farther away from the social responsibility model and points directly toward the student responsibility model.

The alternative of looking at parental financing of college from the perspective of the family as a unit has the disadvantage of obscuring the distinction between the people making the decisions and those getting the direct benefits. It also increases the difficulty of dealing with the changing composition of nuclear families, which include different individuals over time. But it has the advantage of not exaggerating the individualistic nature of intra-family decisions, a shortcoming of the standard economic approach.

The Permanence of the Family Unit

The most reasonable assumption may be that parents view the family as a permanent social and emotional unit, despite the fact that it is a temporary economic unit.¹ This assumption is not universally valid, but the deviations from this standard are concentrated outside of the families most relevant for this analysis. Encouraging parents to save and borrow for college is an irrelevant concept for the segments of society characterized by either very low incomes or by weak family connections. Viewing the family as a unit may then be particularly appropriate in the context of this policy issue.

If parents are looking for the best way to invest their funds in order to maximize the long-term economic well-being of the family as a unit, investment in college education for the young may be the rational choice. If the money is spent on consumption for either the parents or the children, there will be no increase in the future consumption possibilities of the family. Paying for a child's college education may prevent having to support that child, either all or partially, in the future. After college, the assumption is that a child will be a fully independent wage-earner.

The parents might choose to make financial investments instead of investing in their children's college education, or they might choose to increase their own human capital. The longer expected earnings life of the children makes the latter unlikely to be the optimal choice. The issue then becomes one of investing in their children's education or buying stocks and bonds.

If the family is viewed as a life-long unit, parents making the decision about the allocation of family resources are not attempting to distinguish the benefits accruing to themselves as individuals from those that may accrue to their children after they have left the household. Paying for education can be a rational decision, regardless of post-college financial arrangements. While the outcome may be similar to that resulting from an altruism model, the decision-making process is very different.

An interesting but disturbing outgrowth of this line of reasoning is that the distinction between student borrowing and parental borrowing is blurred. Carried to its extreme, it leads to the conclusion that the generational division of the burden within the family is irrelevant. Because treating the family as a unit solves basic problems inherent in the more individualistic approach, but raises new inconsistencies of its own, new perspectives are needed.

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Grants and Exchanges

In stark contrast to the literature on strategic bequests, Boulding (1981) argues that exchange is only one of a set of social organizers. He defines grants as one-way transfers based on either positive or negative emotions. The "love" part of Boulding's *Economy of Love and Fear* refers to "integrative relationships" based on status, identity, community, legitimacy, loyalty, love, and trust. Another form of grant results from threats rooted in fear. Boulding argues that the psychological returns from personal relationships and the satisfaction donors receive from making grants are qualitatively different from the benefits individuals receive from exchange.

Boulding proposes viewing the family as analogous to a large organization with separate departments. The higher members of the hierarchy are the parents, who are responsible for budget decisions and making grants to the various departments—or children. The allocation of resources is made with the best interests of the entire organization in mind, and the interests of the individual departments can never be completely independent. Like the administrator, the parents view the assets of the grant recipient as a part of their own asset structure. Grants become a reallocation of resources within the organization of the family, rather than real transfers.

Some grants may have the intention of altering behavior. Parental grants to children, particularly college financing, certainly have this characteristic. But they still can be viewed as one-way transfers, rather than searching for the return that the parents expect to receive.

The framework can be extended to allow serial reciprocity—A's grant to B instills a sense of obligation in B, who later makes a grant to C. This model can describe each generation paying for the education

of the next generation. It retains the substance of the theory, which posits that complex integrative relationships, such as those between parents and children, result in economic behaviors not described adequately by the notion of exchange. It opens the door to an analysis that puts the self-interest behavior inherent in the student-based financing model, rather than the sense of responsibility at the root of parental financing, on the defensive.

It is important that we keep the idea of "integrative relationships" and the humanistic aspect of economic behavior in the forefront while taking advantage of analytical economics. The combination of the two approaches can help us understand why, despite the importance of interest rates, small increases in the rate of return on savings are not the critical factor in encouraging saving for college. It can also make it clear why simple economic efficiency arguments in support of student financing to generate optimal levels of investment in human capital are inadequate. In the end, we may simply have to reach a social consensus on the value of parental support and responsibility for children's education and on the value of education, not just in terms of increasing future incomes, but in terms of broadening life opportunities in general.

New Directions in Student Loans

In 1993-94, the Federal Family Education Loan Program provided \$21 billion, or 51% of all available aid to students (College Board, 1994). The startling 42% increase in borrowing under these programs, from \$15 billion a year earlier, was largely the result of increased maximum loan limits and the introduction of unsubsidized Stafford Loans.

While the number of students using Stafford Loans increased by 26%, to 5.3 million between 1992-93 and 1993-94, the number of parents of dependent students borrowing PLUS loans decreased slightly, to 342,000. Although recent modifications in the PLUS program include the introduction of creditworthiness as a requirement, PLUS loans can now be borrowed up to the cost of education minus other aid received, with no specific dollar limit.² This increase in available funds can be expected to increase participation in the longer run. It is noteworthy that the average PLUS loan amount rose significantly and was about 50% larger than the average Stafford loan (College Board, 1994).

The increased availability of loans for both students and parents represents progress. Generous parent loan programs are a prerequisite for strengthening the parental role in college financing. Regardless of the strength of this priority, reasonable and accessible loans for students are also vital. Subsidized loan programs have dramatically increased educational access and choice. Despite the reality that some students in high-cost programs are accumulating startling levels of debt, there is, to date, no evidence of serious problems in this respect for most borrowers.

Unsubsidized loans are important for the provision of liquidity to young people who are unlikely to be in need of public subsidies once they complete their educations. Nonetheless, the introduction of the unsubsidized Stafford Loan Program, under which students can borrow regardless of the financial circumstances of their families, may have

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some undesirable side effects. Because they are not need-based, these loans will be used primarily to replace expected student and family contributions. Students could choose to borrow instead of taking the highest paid summer job they can find or instead of working during the academic year. The use of these loans to substitute for the parental contribution is likely to continue.

The parental contributions calculated by the need analysis system are often too high for most middle-income families to pay comfortably out of their annual incomes. With the exception of the few families who have saved considerable amounts in advance and those who have resources not visible to the need analysis system, borrowing is a necessity. Home equity loans have been the most important single source of this borrowing. Perhaps the expanded PLUS loan program will be an important new source of parental borrowing. Still, unsubsidized student loans are almost certain to take the pressure off parents.

This is not entirely a bad thing. There is a limit to the amount of debt parents can responsibly take on, and that limit is easily surpassed in financing high-cost college educations. Nonetheless, to those who believe in the social importance of increasing parental responsibility, the possibilities presented may be frightening. Parents can now shift large amounts of the calculated parental contribution onto their children in the form of non-need-based loans. Families who accept the premises of the student-based payment model will surely make this choice.³ If this perspective is widespread, or if the models of altruism and bequests based on individual self-interest actually predict family behavior, the parental role in financing college is likely to continue its downward trend. Convincing parents that they *do* have responsibilities and options for financing higher education will become increasingly vital, as well as increasingly challenging.

Because of the timing of the innovations, it will be difficult to separate the effects of the unsubsidized Stafford program from the menu of repayment options introduced with direct lending. While the source of capital has no particular significance in terms of how families divide the burden of paying for college,⁴ new repayment options, and income-contingent repayment in particular, may have some unintended effects.

Income-Contingent Loan Realities

The income-contingent loan repayment option has been promoted as making student loans manageable for all borrowers. The idea is that students don't have to worry so much about accumulating heavy debt burdens, since their repayment obligations will never be out of proportion to their incomes. It is reasonable to believe that the existence of this program will increase both the willingness of students to borrow and the willingness of parents to pass the burden on.

In fact, however, repayment *will* be burdensome for many borrowers under the income contingent plan. Some students are likely to borrow excessively, believing their repayment obligations will be limited. As Martin Kramer (1994) argues, this will be particularly true if college costs continue their upward spiral and the average pay-off to

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postsecondary education remains high. Students may be surprised to see the relatively high percentages of income required in repayment which correspond to high debt principal levels.⁵ Also, the extended repayment period will seriously erode the possibility of borrowers saving for their children's education. Parents will still be paying for their own educations when their children are ready for college, perpetuating the shift of the burden to children.

Parents do not enjoy the menu of repayment options, both because extended repayment periods are not reasonable for parents and because of the different earnings curves they face. They will see that they have to repay their entire loans, regardless of their circumstances, and are therefore likely to encourage more student borrowing than they otherwise would.

Economists commonly point out that this type of program carries the problem of adverse selection. If participation in the income contingent loan program is optional, those people who choose it are likely to be those who are pessimistic about their future earnings. Students from low-income families are those most likely to expect to have low earnings and, therefore, to be attracted to the income contingent option. To the extent that students from middle- and upper-income families expect their incomes to be reasonably high after they complete their educations, they will be more likely to choose traditional repayment options and the existence of the income contingent program will be less likely to cause their parents to push the debt burden onto them.

The design of the income contingent repayment program, whereby the government, rather than high-income borrowers, will subsidize those who don't earn enough to fully repay their loans, diminishes the adverse selection problem, but makes the program more appealing to those with high earnings expectations—primarily those whose parents can afford to pay.

A precise analysis of the long-run cost (or benefit) to students of the income contingent loan program is difficult. Current estimates from the Department of Education suggest that the average net present value of the repayment stream under the income contingent program will be approximately the same as that under the standard repayment plan (Goldenberg and Larin, 1994). This conclusion is, however, dependent on the use of a discount rate (6.68%) that is only slightly lower than the interest rate on the loans (6.93%).

Even with this calculation, the differential impact on groups of borrowers is startling. Low-income, high-debt borrowers would pay 5% less under the income contingent loan program, because their payments would be significantly lower than under a traditional repayment plan. In addition, many would not end up paying back their entire debt over the 25-year period. Medium and high income borrowers with low debts, on the other hand, would find the net present value of their repayment 17-18% higher under the income contingent program than under a traditional repayment plan. For them, the small margin between the discount rate and the interest rate makes the extended repayment period costly.⁶ If these are students from comfortable families whose

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parents encourage them to borrow because of the income contingent repayment option, the cost to them could be quite high.

The income contingent repayment plan essentially makes repayment a tax on earnings. Those who do not reap an adequate rate of return are not forced to repay. This provision, designed to increase equity and prevent debt levels from becoming unmanageable, partially corrects a shortcoming of the current system, which bases subsidy levels entirely on pre-college financial circumstances rather than on life-time income.

The current system is disproportionately hard on those who come from families who do not qualify for subsidies, but end up with low earnings. It is overly generous to those who receive subsidies based on parental income, but enjoy high earnings after college. The combination of non-need-based unsubsidized loans and income contingent repayment has the opposite effect, providing generously for those whose families are comfortable but who have low incomes after college. It is not, however, severe for any group, except to the extent that the extended repayment periods increase the total costs of the loans.

Despite its strengths, the income contingent loan program has a potentially negative effect in terms of efficiency, since there is no penalty for students who choose to invest in human capital with a low rate of return. Society bears the entire risk. There will surely be cases where high levels of social benefits are associated with low earnings and incomplete repayment—a few more doctors may devote their lives to serving the poor. But there are likely to be many more cases of investment in education that has little pay-off to anyone. Society will also bear the cost of any consumption component to education (education for its own sake) not correlated with higher market earnings.

Concern for the equitable expenditure of public funds is another reason to approach the income contingent loan program with caution. A positive side-effect of the income contingent loan program should be diminished default costs and less negative reaction to those who fail to repay. Public opposition to subsidizing those whose incomes over their lifetimes are too low to support their educational debt burdens should be less than the current opposition to default subsidies. While students from financially comfortable families who take out unsubsidized loans to finance expensive educations, choose the income contingent option, and then follow career paths that are not lucrative are unlikely to account for a major portion of the cost of the program, a few cases could easily cause some bad publicity. The realities of unstable marital patterns, the complexities of how earned and unearned income will be treated in the program, and the allowable debt levels make this possibility a realistic one.

The income contingent loan program is far from perfect. The optimal loan program would make subsidies contingent on overall financial circumstances and would not discourage parental contributions. But if they are well-managed, the new loan programs should provide useful options for many students without causing undue inefficiencies and inequities.

More Student Education Financing Likely

Recent developments in student aid, including the introduction of unsubsidized student loans and of a variety of repayment options, are likely to exacerbate the trend toward student financing of higher education. While an argument can be made on efficiency grounds for this pattern of financing, parental responsibility for higher education should not be allowed to deteriorate further without a deliberate and informed social decision.

Standard economic theory reveals some of the motives for parental investment in their children, but its individualistic focus prevents it from painting a realistic and complete picture. Other approaches, that allow for family relationships not centered on exchange, make important contributions and allow for a model of higher education finance that values mutual responsibility and parental involvement as aspects of basic norms that strengthen the social fabric.

The new student loan programs must be monitored carefully to minimize their effect in shifting the burden of paying for college from parents to students. If large numbers of students from families with considerable levels of economic resources are involved, it will become clear that greater effort is required to reinforce the sense of parental responsibility.

Perhaps most critical is the provision in the law that requires schools to let borrowers know the exact implications of repayment options. An understanding of the aggregate cost to the individual of extending the repayment period is a vital element in discouraging excessive borrowing, either through parental transfer of the burden to children or through efforts to take undue advantage of public subsidies. ♦

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Endnotes

¹Rosenzweig & Wolpin (1993) deal explicitly with the transition from a single household to multiple households as children mature. They conclude that parents do receive positive utility from their children's higher education. In other words, parents want to subsidize their children's education.

²The interest rate, based on the 52 week T-bill rate plus 3.1%, adjusted in July, is capped at 9%. Payments on PLUS loans begin 60 days after disbursement, and deferment is based on the status of the parents.

³Aggregate Stafford loan limits are lower for dependent students whose parents qualify for PLUS loans. This provision represents a reasonable attempt to limit the extent to which parents who are able to borrow themselves can shift the burden to their children, without limiting too severely the liquidity available to students whose parents are not able to help them.

⁴There may be macroeconomic intergenerational implications, depending on how the capital is generated for the two programs. This important issue is beyond the scope of this article.

⁵While the base repayment rate is 4% of AGI, the addition of .2% for each \$1,000 of principal means that borrowers with debts of \$11,000 will pay 6% of AGI per year, those with \$31,000 of debt will pay 10%, and the maximum repayment rate of 15% is reached at the now unusually high debt level of \$56,000.

⁶Goldenberg and Larin (1994) predict significant declines in the default rate among these groups, contributing to their increased cost of repayment under the income contingent loan program.

References

- Barro, Robert (1974). Are Government Bonds Net Wealth? *Journal of Political Economy*. 82(6):1095-1117.
- Becker, Gary (1976). Altruism, Egoism and Genetic Fitness. *Journal of Economic Literature*. 14(3):817-826.
- _____ (1981). *A Treatise on the Family*. Cambridge: Harvard University Press.
- Bernheim, B. Douglas, Andrei Shleifer and Lawrence H. Summers (1985). The Strategic Bequest Motive. *Journal of Political Economy*. 93(6):1045-1076.
- Boulding, Kenneth (1970). *Economics as a Science*. New York: McGraw-Hill.
- _____ (1981). *A Preface to Grants Economics: The Economy of Love and Fear*. New York: Praeger.
- Collard, David A. (1978). *Altruism and Economy*. New York: Oxford University Press.
- College Board (1994). *Trends in Student Aid: 1984-1994*. Washington, DC: College Board.
- Cox, Donald (1987). Motives for Private Income Transfers. *Journal of Political Economy*. 95(3):508-546.
- Goldenberg, Daniel and Kathryn Larin (1994). *Estimating the Cost of the Federal Income Contingent Loan Repayment Option*. U.S. Department of Education. Xerox.
- Kessler, Denis and Andre Masson (1989). "Bequest and Wealth Accumulation: Are Some Pieces of the Puzzle Missing?" *Journal of Economic Perspectives*. 3(3):141-152.
- Kramer, Martin (1994). "Direct Student Loans in the Changing Landscape of Higher Education Finance." Unpublished draft.
- Kuehlwein, Michael (1994). "The Non-equalization of True Gift and Estate Tax Rates." *Journal of Public Economics*. 53:319-323.
- Lord, William and Peter Rangazes (1993). Altruism, Deficit Policies and the Wealth of Future Generations. *Economic Inquiry*. 31(October):609-630.
- Lutz, Mark and Kenneth Lux (1988). *Humanistic Economics: The New Challenge*. New York: The Bootstrap Press.
- National Commission on Responsibilities for Financing Postsecondary Education (1993). *Making College Affordable Again*. Final Report. Washington, DC: National Commission.
- Phelps, Edmund S. (1975). *Altruism, Morality, and Economic Theory*. New York: Russell Sage Foundation.
- Rosenzweig, Mark and Kenneth Wolpin (1993). Intergenerational Support and the Life-Cycle Incomes of Young Men and their Parents. *Journal of Labor Economics*. 11(1):84-112.
- Samuelson, Paul (1958). An Exact Consumption-Loan Model of Interest With or Without the Social Contrivance of Money. *Journal of Political Economy*. 66(6):467-482.
- Sugden, R. (1983). *Who Cares? An Economic and Ethical Analysis of Private Charity and the Welfare State*. London: Institute of Economic Affairs.
- _____ (1984). Reciprocity: The Supply of Public Goods Through Voluntary Contribution. *Economic Journal*. 94:772-787.
- Tullock, Gordon (1977). Economics and Sociobiology: A Comment. *Journal of Economic Literature*. 15(2):502-506.