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The Policy Implications of Interactions Among Financial Aid Programs

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Various gift-aid, loan, and work-study programs help college students fill the gap between educational costs and their financial resources. Previous research generally has examined the effects of a given program by itself. What is missing are studies that investigate interactions among programs, such as how state or university grants reinforce or offset the targeting policies that are embedded in the Pell program.

This article draws on research conducted on colleges in Indiana to describe how federal, state, private, and college-based financial aid programs and practices interact with each other to determine the total amount of gift-aid a student receives. It discusses how these relationships can dilute or enhance a program's implicit targeting policies. The lessons learned from this experience provide important insights for developing a fuller appreciation of how current and future gift-aid programs may affect each other.

Various types of financial aid programs help students fill the gap between educational costs and their (and their family's) financial resources. In addition to federally subsidized loans and work study programs, about 20% of all full-time undergraduates in the country receive need-based "gift-aid" (Reeher & Davis, 1991), i.e., money they do not have to work for or pay back. There are four broad classes of such aid: Federal Pell grants, state aid, funds that are under the discretionary control of the student's college, and special awards, such as "last dollar" programs (Robyn et al., 1992).

Several studies have examined the effects of such grant programs, but the research has generally focused on a single type of award (see Klein et al., 1992, Appendix F for a review of this literature). What is missing is an examination of how interactions among gift-aid programs reinforce or offset their explicit or implicit targeting policies.

This article investigates these interactions through an analysis of how Pell, state, and institutional gift-aid were related to grants made through the Lilly Endowment Education Awards (LEEAs) program. That program, which was in effect from 1987 through 1992, provided a unique, "natural experiment" for studying the ways in which generically different types of gift-aid programs are likely to interact, and how these interactions affect the extent to which a program achieves its targeting goals. The LEEA experience therefore offers important lessons for those who are developing or evaluating financial aid policies and programs.

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We begin with a brief review of gift-aid formulas. Next, we examine how LEEA awards, when combined with other formula aid, offset the Pell program's policies. Finally, we discuss equity packaging—a policy that underlies most college and university discretionary aid programs—and its implications. Our analyses are based on data provided by the Indiana Commission for Higher Education, Student Information System

and on interviews with college students and financial aid administrators at public and private schools throughout Indiana (Klein et al., 1992).

Gift-Aid Formulas

The formulas for the 1989-90 academic year were as follows:

Pell = $2,300 − Parent Contribution − Student Contribution
State = 77% of (Tuition − Parent Contribution)
LEEA = 45% of (Tuition + Maintenance) −
        (Parent Contribution + Pell + State)

The differences among these formulas indicate they are not trying to help the same students. The Pell formula that was in existence during the LEEA years (but changed afterwards) considered the total expected family—parents plus student—contribution in its computation of need, but ignored tuition. In contrast, the State and LEEA formulas did not include any measure of expected student contribution, but they did factor in tuition. The Pell and State programs made awards independent of any other gift-aid the student received, while LEEAs were affected by the size of Pell and State awards. To insure that total awards would not exceed available funds, Pell established a $2,300 maximum award, while the State and LEEA formulas used percentage figures (77% and 45% respectively). Only LEEA considered the cost of maintenance (which included room, board, and books). The formulas also differed in how they computed parental contribution. In 1990, the Pell Grant Index (PGI) was used for Pell awards and the Congressional Methodology was used for the State and LEEA formulas.

These variations in formulas and methods had far-reaching implications. Because the Pell program included student contribution in its formula, it granted smaller awards to students who saved money from summer or after school jobs than it did for students who did not save (assuming the parent contribution was the same for both students). Because of differences in calculating parental contribution, the PGI tended to favor students from very low income families. Still, we want to know how the variations in these formulas combine to impact the student's total aid package, and whether this combination results in an award that is consistent with the policies of the other grantors. The example of Indiana's LEEA program sheds light on this issue.

LEEAs in Indiana

Federal policy in 1990 (as implied by the Pell award schedule) said that expected student contribution should be considered because it is related to a student's ability to pay for college. In contrast, the LEEA formula said students should not be penalized as a result of saving for their education. The Pell rules emphasized equity, while the LEEA program rewarded those who saved for college.

The examples in Table 1 illustrate how this difference in policy resulted in LEEAs restoring the funds students would have received were it not for the expected student contribution portion of the Pell formula. Specifically, this table shows how much gift-aid three hypothetical Indiana students would receive from each source if they attended the same large, public university. Tuition and fees at this

TABLE 1
How Formula Aid Programs Interact

Type of Financial Support	Bill	Sue	Jane
Expected Parental Contribution	$2,300	$1,000	$1,000
Expected Student Contribution	0	150	1,300
Formula Gift-Aid			
Pell	0	1,150	0
State	0	850	850
LEEA	700	0	1,150
Total Formula Gift-Aid	700	2,000	2,000
Expected Parental Contribution + Formula Gift-Aid	$3,000	$3,000	$3,000

school are $2,100. Maintenance expenses are another $4,567. The total cost of attendance is therefore $6,667.

Table 1 shows that Jane had an expected parental contribution of $1,000 and an expected student contribution of $1,300. She did not receive a Pell grant because the sum of her expected parental and student contributions exceeded the maximum Pell award. However, the State gave her 77% of the difference between her tuition and fees ($2,100) and her expected parental contribution ($1,000). She received a $1,150 LEEA because: $(.45)(\$6,667) - (\$1,000 + \$850) = \$3,000 - \$1,850 = \$1,150$.

Jane's LEEA exceeds Bill's LEEA by enough that, added to her State grant, it makes up the difference between their expected student contributions. In a sense, the Pell program "taxed" Jane's savings by reducing her Pell award by the amount of her expected student contribution, bringing it to $0. By not taking account of this expected contribution, the State program effectively restored $850 of those funds. The LEEA program restored the rest.

Jane and Sue have the same expected parental contributions, but different expected student contributions. However, they both receive $2,000 in gift-aid. What happened? Their Pell awards vary by the difference in their student contributions. Both receive $850 from the State because they both have the same parental contribution. Their LEEA grants equal the difference between $3,000 and the sum of their Pell grant, State grants, and expected parental contributions. Hence, their LEEA grants differ by the differences in their Pell awards which, in turn, are driven by the differences in their expected student contributions.

The discussion above shows that LEEAs tended to equalize differences among students in the amount of formula gift-aid they received when these differences stemmed from disparities in their expected student contributions. We used the equation below to compute the proportion of LEEA dollars that were devoted to this purpose (where "family" contribution is the PGI measure of expected parent plus student contribution and "target cost" equals 45% of tuition, fees, and maintenance as per the LEEA procedures). This formula essentially contrasts the actual LEEA with the one that would have been awarded

if the LEEA program considered expected student *and* parent contribution.

$$\text{Offset} = \text{LEEA} - \text{Target Cost} + \text{Pell} + \text{State} + \text{"Family" Contribution}$$

The sum of the offsets divided by the sum of the LEEAs at a school indicates the proportion of LEEA dollars going to that school to reimburse students for the funds the "expected student contribution" portion of the Pell formula took away from their Pell grant. Overall, about 61% of all the LEEA funds expended in 1989-90 were used for this purpose. Thus, roughly three out of five LEEA dollars were used to offset the federal policy of reducing aid by the amount of the student's expected contribution.

The size of the offset varied considerably among schools. The overall percentages at Indiana's public and private schools were 71% and 42%, respectively, but some private schools had larger offsets than some public ones. We also simulated what would have happened if LEEA had used the PGI instead of the Congressional Methodology to determine parental contribution, and found that this would have reduced the total amount awarded in 1991-92 by about one third. Almost all of this reduction would come from a decrease in awards to students at public schools (see Klein, et al., 1992, Appendix B).

[Note: the simulation on 1991-92 data is as current as possible. This year could not be used for all other analyses because the 1991-92 tape did not contain some of the variables that were needed for those analyses.]

Equity Packaging and Its Implications

Formula aid is only one part of the total gift-aid package. In Indiana, it constituted 63% of the gift-aid awarded at public schools, but just 28% awarded at private schools. Another 5% came from a variety of sources, including academic scholarships and aid to special groups, such as veterans. All the rest came from funds that were under the discretionary control of the student's school.

The policies that now largely govern the disbursement of discretionary aid can be traced back to a 1974 College Entrance Examination Board task force on the management of student assistance programs. This task force recommended that colleges adopt a financial aid packaging policy that would "maximize equity and insure that priority for grants not be on the basis of academic achievement or special talent" (National Association of Student Financial Aid Administrators, 1983; p. 52). This policy, which has become known as "equity packaging," has been adopted by hundreds of colleges and universities across the country.

There are many ways in which equity packaging is implemented. The "absolute" method is illustrated by the practices at Ball State University, a public college in Indiana. In 1991, this school computed the sum of the following factors for each student: expected parental contribution; all need-based, gift-aid (Pell, State, and LEEAs); all other outside awards (including those to target groups, such as minorities); and any merit-based awards. Ball State used the funds under its control to make up any difference between this sum and $4,300. The $4,300 cap allowed

Ball State to disburse all of its limited discretionary aid without going over its budget.

The "fixed percentage" version of equity packaging is illustrated by the policy at DePauw University. In 1991, this private school defined "need" as the difference between the total costs of attendance (roughly $18,000) and the sum of the expected parental and student contributions from assets and work study earnings. It also classified students into six levels on the basis of their predicted first year grade point averages (GPAs). This was done using high school grades and admissions test scores. Finally, it used its discretionary aid to insure that all students with the same combination of need and predicted GPA had the same percentage of their need met by gift-aid regardless of the sources of that aid. Loans (Perkins and/or Stafford) were expected to make up any shortfall between the total cost of attendance and the sum of all gift-aid and expected parental and student contributions (including work study).

Table 2 illustrates the DePauw procedure for two hypothetical students, one from Indiana and the other from Ohio. Both students have the same predicted GPA and need level (of $15,000). In this scenario, neither receives a Pell award because the sum of each student's expected parental and student contributions exceeds the Pell limit. The Indiana student receives the maximum state award of $3,800 and a LEEA of $1,150 for a total of $4,950 in formula gift-aid. DePauw's target for these students is 67% of their need level which equals $10,050 (because 67% of $15,000 = $10,050). It therefore gives $5,100 to the Indiana student (because $10,050—$4,950 = $5,100), and nearly twice that much to the Ohio student.

The implications of equity packaging are profound. As the above example suggests, fixed percentage equity packaging may encourage institutions with limited discretionary aid to give preference to in-state students with financial need over out-of-state students (with that same need) because in-state students bring State and LEEA dollars with them.

TABLE 2
Illustration of the "Fixed Percentage" Version
Of Equity Packaging

	Indiana Student	Ohio Student
Total Cost	$18,000	$18,000
Expected Family Contribution	−3,000	−3,000
Total Need	$15,000	$15,000
Pell	0	0
State	3,800	0
LEEA	1,150	0
Institutional Aid	5,100	10,050
Target (67% of Need)	$10,050	$10,050

Tuition and Maintenance costs were $12,000 and $6,000, respectively. Both students had expected parental and student contributions of $2,000 and $1,000 (according to PGI and Congressional methods). The Indiana student received the maximum State award of $3,800 because tuition and fees exceeded the $6,000 cap. Because this is a private school, the formula for the LEEA grant is: [0.45($18,000) − ($3,800 + $2,000)]/2 = $1,150.

Equity packaging also means that the policies of a well funded, institutional gift-aid program will overshadow the policies of other aid programs. The more funds a school gives a student, the greater the relative impact the school's policies will have on the total package. With equity packaging, aid programs designed to benefit certain groups are less likely to hit their mark at schools which provide large or even moderate levels of institutional support. For example, the state may give minority students gift-aid to encourage them to go into teaching. But, the effect of this inducement is reduced or even eliminated if the school adheres to equity packaging when calculating how much discretionary aid it will give students to bring them up to its equity cap level.

Equity packaging also affects how a gift-aid program is evaluated. Specifically, one cannot simply focus on the students who nominally receive awards under that program. When a granting agency increases the total amount awarded, all the gift-aid recipients at a school benefit, not just those who officially receive a particular type of grant. All ships rise on the incoming tide.

Conclusions

Between 1987 and 1992, Indiana offered a unique "natural experiment" for examining interactions among four major types of gift-aid programs. The Pell, State, and LEEA programs had different definitions of "need," implying that each intended to focus funding on, and hence affect, different populations. Indiana's colleges and universities also provided significant amounts of institutional gift-aid from their endowment funds and other sources.

Our analyses of this natural experiment found that the formulas employed by these programs interacted in ways that distorted, or even canceled out, their implicit targeting objectives. For example, Pell grants during this period took account of student contribution while State grants did not. LEEA grants made up the difference between a target amount and the sum of Pell and State grants and parental contribution. Effectively, the Pell program "taxed" students' savings by reducing their Pell awards by the amount of their "expected contribution" which varied directly with their savings. By not taking account of this "expected contribution," the State program restored some of those funds. The LEEA program restored the rest. Institutions that employ an equity packaging approach to determine their gift-aid awards, as most colleges and universities do, may effectively "wash out" the targeting provisions of Federal, State, and special aid programs by making up the difference between a student's need, inclusive of Federal, State, and special program gift-aid awards, and a target support amount.

Our specific results pertain to a combination of gift-aid programs that no longer exist. The LEEA program ended after the 1992-93 academic year. The Pell program has changed its method for calculating need, hence its targeting philosophy. But the lessons learned from this analysis are still relevant to the design, implementation, and evaluation of federal, state, and other financial aid policies and programs. Specifically, the formulas on which certain gift-aid programs are based interact in ways that affect, and may even cancel out, the targeting policies built into them. Indeed, the last agency to contribute to the total gift-

aid package is usually the one that calls the tune, even if the amount it contributes is less than that of other donors. Thus, if a Federal, state, or special program wants to target aid, it will have to find a way to circumvent equity packaging. Alternatively, if it subscribes to equity packaging, the current methods for awarding grants may do just fine. ✦

References

Klein, S. et al. (1992). *Interactions Among Gift-Aid Programs in Indiana.* R-4218-LE. Santa Monica, California: RAND.

National Association of Student Financial Aid Administrators. (1983). "Standards for the Development of Policy Guidelines for Packaging Need-Based Financial Aid." Washington, DC.: *NASFAA Monograph Series Number II.*

Reeher, K. R. and Davis, J. S. (1991). "22nd Annual Survey Report 1990-1991 Academic Year." *The National Association of State Scholarship & Grant Programs.* Harrisburg, Pennsylvania: Pennsylvania Higher Education Assistance Agency.

Robyn, A., et al. (1992). *Programs to Promote College Going Combining Services and Financial Aid.* N-3581-LE, Santa Monica, California: RAND.