[Journal of Student Financial Aid](https://ir.library.louisville.edu/jsfa)

Volume 3 | Issue 3 Article 5

12-1-1973

Measuring the Ability of Undergraduate Married Students to Contribute to Educational Costs

Dwight H. Horch

MEASURING THE ABILITY OF UNDERGRADUATE MARRIED STUDENTS TO CONTRIBUTE TO EDUCATIONAL COSTS

Dwight H. Horch

At the present there is considerable debate among financial aid officers about eligibility criteria and needs analysis procedures for self-supporting students. In fact, some have even argued that the independent student should not exist, except when he or she is an orphan or ward of the court. While debate exists regarding the validity of the concept of a self-supporting student, there is little disagreement that a methodology is needed for determining the ability of married students (dependent or independent) to contribute to the applicant's educational costs. Thus, the purpose of this paper is to present such a methodology, in context of determining an undergraduate married student's grant aid and self-help eligibility.

Generally accepted standards and procedures exist for measuring parental ability to pay for higher education. But they have not been adopted for measuring the strength of the married student's income. Typically, the income of the married applicant and spouse is subtracted from a standard expenditure budget to arrive at financial need. This derived estimate of financial need is construed as a need for some combination of grant, loan, or job aid. This procedure has several drawbacks. First, it taxes the applicant's and spouse's income at a 100 percent rate. Second, the married student, because of the higher expenditure budget, is in an advantageous position to receive financial aid. That is to say, it is possible for a married student to receive a grant such as SEOG, simply because he or she is married and has a higher expenditure budget than the unmarried applicant. In order to counter this "advantage," some financial aid officers and government agencies scale down the expense budgets of married students to levels that other aid officers, and students, feel are unrealistic.

The problem, then, is to develop a methodology for treating married stu-

Dwight Horch is the Executive Associate to the Vice President for Higher Education and Career Programming at the Educational Testing Service in Princeton, New Jersey. Prior to his present position, he served as Associate Program Director for Financial Aid Studies and Programming at ETS.

dents in such a way that they do not receive undue preference in the allocation of grant monies, yet to recognize that they do require higher expenditure budgets than their unmarried counterparts. The remainder of this paper is devoted to resolution of this problem.

Measuring Parents' Ability to Contribute to Educational Costs

A basic assumption underlying needs analysis for single dependent undergraduate students is that their parents should be expected to contribute toward the student's educational costs. Existing needs analysis services have developed procedures for collecting parental financial information, and for calculating parents' contribution according to generally accepted tenets of ability to pay. In particular, the College Scholarship Service (CSS) of the College Entrance Examination Board has developed expected rates of contribution from Bureau of Labor Statistics (BLS) data. On a number of occasions, Bowman (1972) has documented the technique for developing contribution rates for families whose income is below the BLS intermediate consumption budget standard. The CSS procedure for developing rates of expected contribution first involves a determination of the costs for maintaining a student at home for nine months. This determination is made from BLS data and CSS family size population weights. It involves a determination of the marginal cost of adding a child to the family by family size, and then calculation of a weighted average cost for maintaining the child for nine months at the intermediate (moderate) budget standard.

Once the amount of the maintenance contribution is established, parents' contribution rates are established by fitting a straight line, for each family size, between two points. The first point, at which $250 contribution is expected is the BLS low budget standard; the second point, at which maintenance contribution of $1,100 is expected, is the BLS intermediate (moderate) standard.

Reference was made earlier to the absence of a methodology for estimating the ability of married students to contribute toward educational costs, and that existing procedures probably result in preferential treatment of them, particularly in the allocation of grant aid. Yet the methodology for determining parents' contribution rates can be adopted for the case of the married student.

Measuring Married Students' Ability to Contribute to Educational Costs

Just as parents are expected to contribute toward the applicant's maintenance and educational costs, so too should married students be expected to make a corresponding sacrifice. In the previous section we saw how parental contribution rates were established. But how does this relate to the married student?

A strong case can be made for consistency in needs analysis procedures for parents and married students. Both have demands on their income for maintaining the family unit. Both are adults, and both should be expected to contribute toward the applicant's maintenance and educational costs as they are able.

Adoption of the precepts underlying parental ability to pay to the case of the married student requires, first of all, a determination of the low and moderate effective income points for students age 20 to 35, and for those over 35 years of age. Bowman has previously determined BLS budget standards for families where the household head is over 35 in connection with the College Scholarship Service rationale for estimating parental ability to pay. Using the 1967 BLS budget standards for the four person family with household head age 38, updating them to December 1971 with the Consumer Price Index, and adjusting for age-family size differences using the Revised BLS Equivalency Scale, yields the following budget standards:

Table 1
BLS Low and Moderate Cost 12-Month Consumption Budgets
(Effective Income Points) by Age of Household Head and Family Status

	Under 35		Over 35[a]	
Family Status	Low	Moderate	Low	Moderate
Married - No Children	$2,950	$4,350	$4,020	$5,920
Married - 1 Child	3,740	5,500	5,760	8,480
Married - 2 Children	4,340	6,570	6,700	9,870
Married - 3 Children	5,670	8,350	7,570	11,150

[a]Source: J. L. Bowman, *Measuring the Financial Strength of Family Resources.* Princeton, New Jersey: Educational Testing Service, 1972.

In addition to developing budget standards, adoption of the precepts for parental contributions to the case of the married student requires a determination of how much it costs to maintain a married individual for nine months in his or her family unit. While the BLS data are the most extensive and appropriate for determining budget standards for married persons, they are not too helpful for establishing budget standards for single persons under 35 years of age. This is due to the fact that the BLS scale values for single consumers have certain technical limitations. The major limitation is in its derivation, which assumed an income-food elasticity coefficient of .5 for single persons, when the empirically derived coefficient was nearly .65. Thus, the BLS equivalency scale values for single consumers likely result in consumption budgets that tend to deviate from reality.

Due to this technical consideration, it was necessary to look elsewhere for budget standards for single persons under 35 years-of-age. In an analysis of expenditure data reported by students in the 1967-68 and 1968-69 Student's Confidential Statement (SCS) populations, Horch (1971) found a surprising similarity between the mean consumption budgets reported by single students and moderate budget standards he developed from United States Department of Agriculture (USDA) moderate-cost food plan data. Thus, the USDA data enable the construction of low and moderate level consumption budget standards for single students that correspond rather closely with their empirically determined budgets.

We have just defined the low and moderate level consumption budgets, which may be thought of as the low and moderate effective income points for students age 20-35. Before contribution rates can be established, a determination must be made about the contributions that may reasonably be expected from the low and moderate effective income points shown in Table I. In other words, we must determine what portion of the low and moderate budgets are devoted to maintaining a married individual age 20-35 for nine months, within the family unit.

Fortunately, the USDA data are organized so that the 9-month low and moderate cost food plans for a man or woman can be calculated rather readily for each of the various marital status groupings. The steps involved in the derivation of the expected contribution at the effective low income point are outlined below:

1. The low-cost food plans for one month for men and women age 20-35 were averaged and multiplied by nine to derive the amount of the low-cost food plan for nine months.
2. The figure derived in step 1 was adjusted using USDA family size adjustment factors to derive the low cost food plan for nine months for a man or woman in each marital status category.
3. The figures derived in step 2 for each marital status group were multiplied by three to arrive at the nine-month low budget standards for a man or woman in each classification.
4. 1970-71 Student's Confidential Statement population weights were applied to the figures derived in step 3 to arrive at the weighed average cost of maintaining a man or woman age 20-35 at the low budget standard for nine months. This amount was found to be $1,087 (rounded to $1,100) — an amount that corresponds rather closely to the amount parents are expected to contribute at the moderate effective income level.

The four-step procedure outlined above was repeated using the USDA moderate cost food plan, and a food to income ratio of .25 to derive the contribution that could reasonably be expected at the effective moderate income points shown in Table 1. This amount was found to be $1,855, which was rounded to $1,900.

The derivation of contribution rates for each marital status group was a two-step process. The first step involved fitting a straight line between the points of zero contribution at the zero income point, and a $1,100 contribution at the effective low income point. Then a second straight line was fitted between the points of $1,100 contribution at the effective low income level, and $1,900 at the effective moderate income level.

Finally, these steps were repeated in order to derive the contributions from married couples where the student is age 36-55. The resulting contributions expected at various income levels and family sizes are shown in Table 2 and 3. Table 2 applies to married students age 20 to 35; Table 3 to married students age 36 to 55.

It should be noted that the above procedure for deriving contribution rates for students departs in some important respects from the CSS procedure for determining rates of expected parents' contribution.

Table 2
Married Couples' Contributions to Married Applicant's Maintenance and Educational Costs from Effective Income
(Age of Student 20 to 35)

Effective Income	Married - No Children	Married - 1 Child	Married - 2 Children	Married - 3 Children
$ 0	$ 0	$ 0	$ 0	$ 0
500	190	150	130	100
1,000	370	290	250	190
1,500	560	440	380	290
2,000	750	590	510	390
2,500	930	740	630	490
3,000	1,130	880	760	580
3,500	1,410	1,030	890	680
4,000	1,700	1,220	1,010	780
4,500	2,050	1,450	1,160	870
5,000	2,550	1,670	1,340	970
5,500	3,050	1,900	1,520	1,070
6,000	3,550	2,400	1,700	1,200
6,500	4,050	2,900	1,870	1,350
7,000	4,550	3,400	2,330	1,500
7,500	5,050	3,900	2,830	1,650
8,000	5,550	4,400	3,330	1,800
8,500	6,050	4,900	3,830	2,050
9,000	6,550	5,400	4,330	2,550

Table 3
Married Couples' Contributions from Effective Income for Married Applicant's Maintenance and Educational Costs
(Age of Student 36-55)

Effective Income	Married - No Children	Married - 1 Child	Married - 2 Children	Married - 3 Children
$ 0	$ 0	$ 0	$ 0	$ 0
500	140	95	80	70
1,000	270	190	160	150
1,500	410	290	250	220
2,000	550	380	330	290
2,500	680	480	410	360
3,000	820	570	490	440
3,500	960	670	570	510
4,000	1,090	760	660	580
4,500	1,300	860	740	650
5,000	1,510	950	820	730
5,500	1,720	1,050	900	800
6,000	1,980	1,170	980	870
6,500	2,480	1,240	1,070	940
7,000	2,980	1,340	1,180	1,020
7,500	3,480	1,430	1,300	1,090
8,000	3,980	1,530	1,430	1,200
8,500	4,480	1,920	1,550	1,310
9,000	4,980	2,420	1,680	1,420

First, the point of zero contribution for married students was assumed to be zero income; for parents, the CSS point of zero contribution is approximately 80 percent of the BLS low budget standard. Thus, the married student contribution assumes that a portion of the married couple's income is devoted to the applicant's maintenance, regardless of the size of the income. A second distinction between this procedure and the CSS procedure exists in the contribution rates from discretionary income (income above the moderate standard). A uniform 100 percent rate is presumed in the procedure for married students; CSS uses a progressive marginal taxing rate in determining contributions from income above the moderate income point.

Basic Financial Need

The contributions shown in Table 2 are amounts that the married couple may reasonably be expected to contribute toward the *applicant's* maintenance and direct educational expenses (tuition, fees, books, supplies). The concept of expecting a contribution from the married couple that is less than their total income implies that the married student's financial need will be determined by comparing the contribution against a nine-month expense budget for the *applicant's* maintenance and educational costs. In effect, the married couple's contribution is added to any amounts expected from their assets, the applicant's parents, and other resources, to arrive at the total resources available to the applicant. The difference between the total nine-month budget for a *single* individual and the total resources available to the applicant may be defined as the applicant's *basic need.*

By definition, the applicant's basic need precludes any financial need arising from insufficient income to support other members of the family unit.

This definition of the married student's basic need encompasses certain other assumptions, which are listed below:

1. The applicant and spouse are accepted in their present financial situation.
2. The applicant, spouse, and any dependent children must coexist on income of the applicant and spouse. As a consequence, a portion of the applicant's income, and of the spouse's income is protected for the preservation of the family unit, and a lesser portion is expected as a contribution toward the applicant's maintenance and educational expenses.
3. A decision by the spouse not to be gainfully employed does not unduly affect an applicant's basic financial need. Thus, a justification for determining basic need using the budget for a single individual.
4. Moreover, a packaging philosophy is inherent in each of these assumptions, and indeed is the reason for calculating a married student's basic financial need. Simply stated, equity seems best served if certain types of undergraduate financial aid, particularly grants, scholarships, and tuition waivers, are used only to meet the maintenance requirements and educational costs of the applicant.

Stated differently, nonrepayable student financial aid — particularly public-sector grant monies — should be used to subsidize members of the student's family unit, other than the applicant, only if there are sufficient funds to meet the needs of students who have chosen not to marry.

In summary, the definition of a married applicant's basic need places a maximum limit on the amount of grant assistance that may be awarded. It recognizes competing demands on the applicant's and spouse's income for maintaining the student's family unit and meeting college costs. It makes no assumptions about how much, if any, the spouse should earn on the one hand, but precludes grant subsidy for maintenance of the spouse and dependent children on the other. Most important, this definition places the single student on a more nearly equal footing with married students in receiving priority for financial aid, and in the amounts each receive in the form of nonrepayable stipends.

But this is a limited definition of financial need which, if not broadened, might force married students to choose between their education or preserving the family unit — a choice that could result in either the student's withdrawal from postsecondary education, or dissolution of the marriage.

Supplementary Financial Need

Supplementary Financial Need may be defined as the amount needed by the married student to meet the living costs of other members of his or her family unit. In essence, supplementary need is the difference between the consumption budget for the family unit (plus the applicant's direct educational expenses), and the sum of total income of the applicant, spouse, parents' contribution, other resources, and basic need.

The definition of supplementary need embodies several concepts that should be noted. First, it recognizes that the applicant is confronted with maintaining the family unit. Second, it makes provision for unusual expenses of the married student's family in a way that could be similar to the CSS allowance structure. Third, it enables the student to choose to live at a more reasonable budget standard.

The concept of supplementary need also has certain implications for financial aid packaging. Since supplementary need is defined as the amount required for support of the applicant's family unit, it follows that this need can be met through various forms of self-help assistance — expanded employment opportunities for the applicant and spouse, or loans which will be repaid out of future income. Ideally, the applicant and spouse would be permitted to choose the form of self-help that best meets their needs. In some cases, the spouse may choose to enter the labor force. Or the applicant may choose to work part-time during the academic year. Or the applicant may choose to borrow rather than to have a working spouse, particularly if children are present. In any event, the concept of supplementary need recognizes the unique financial requirements of the married student, and permits the financial aid director to meet these requirements through various forms of self-help assistance.

Methodological Considerations

At this point a rationale has been set forth for determining contributions that may be expected from the married student's and spouse's income, and for determining basic and supplementary financial need. However, computation techniques and operational definitions are required to translate the rationale into a workable system. This section presents some of these methodological considerations.

Total Income of Applicant and Spouse: First, a definition of the married couple's total income is required before their contribution can be determined. This may be defined as the sum of reported summer earnings of the applicant, annual earnings of spouse, social security, veteran's, and other benefits received by the couple and other sources of income excluding any outside sources of financial aid, aid from parents, and earnings of the applicant during the summer. Exclusion of the applicant's academic year earnings from this determination is in keeping with the concept of supplementary need and self-help packaging that is inherent in this approach. Logic dictates that sources of income for the estimated year, and not the current year, be used in needs analysis procedures for married students.

Allowances Against Income: Equitable measurement of a married couple's ability to contribute to the applicant's maintenance and educational costs requires an allowance structure similar to that incorporated in measuring parental ability to pay. Following the CSS model for determining parental contributions, measurement of married couples' ability to pay might be based on a parallel allowance structure. Namely, allowances against gross income could be made for business expenses, federal and state taxes, medical expenses in excess of five percent of net income, noneducational related indebtedness, other dependents, and extraordinary expenses. Since the definition of the couple's total income excludes the applicant's academic year salaries and wages, it is difficult to justify the need for a "housekeeping" allowance. Thus, the couple's contribution would be based on its effective income; that is, gross income less defined allowances.

Total Resources for Applicant's Maintenance and Educational Costs may be defined as the sum of expected contribution from the couple, parents' expected contribution, outside sources of financial aid, and the amount expected from the couple's assets. While the purpose of this paper is not to set forth a methodology for measuring the strength of the couple's assets, one procedure is to assume that half of the couple's assets belong to the spouse and are not available to the applicant, and then to prorate the applicant's half over the years remaining to the degree.

Basic Financial Need may be defined as the difference between the standard nine-month expense budget for an unmarried student and the married couple's total resources for the applicant's maintenance and educational costs. In view of the shortage of grant funds, the standard nine-month expense budget for an unmarried student should probably be defined to include amounts for maintenance at the low budget standard ($1,100) and for direct educational expenses. Use of the nine-month low budget standard in this instance presumes that grant funds may be utilized to meet the student's basic financial need for maintenance at a marginally adequate standard of living, and for educational costs (The concept of supplementary need, as we will see, permits the student to achieve a higher standard of living for himself and his family through loans and jobs.)

Supplementary Financial Need has previously been defined as the difference between the 12-month moderate budget standard for the family unit (as opposed to the individual) and the total resources of the married couple for the estimated year, less the applicant's basic financial need. By definition, the concept of supplementary need permits the maintenance of the family unit at a more adequate standard of living through self-help efforts. Furthermore, it also recognizes the married couple's unusual expenses, since any unusual expenses are added to the 12-month moderate budget standard.

Case Study

The procedure for determining a married applicant's basic and supplementary need is best described by illustration. Consider the case of a married third-year student with no children. The student estimates summer earnings, after state and federal taxes, of $1,000. The spouse's earnings for the estimated calendar year are $3,500. The couple has $500 in savings, and no debts. Furthermore, the married student is classified as dependent on parents, whose expected contribution is $420.

The derivation of an applicant's basic financial need involves the following calculations:

a. Determination of Basic Budget

Budget for applicant's maintenance at low standard for 9-months	$1,100
Applicant's tuition, fees, books and supplies	$1,900
BASIC BUDGET	**$3,000**

b. Determination of Effective Income of Applicant and Spouse

Applicant's summer income after taxes	$1,000
Spouse's calendar year income after taxes	$3,500
Other income	$ 0
Total income after taxes	$4,500
less Total allowances	-$ 0
Effective Income	**$4,500**
Contribution from Effective Income (Table 2)	**$2,050**

c. Determination of Total Resources for Applicant's Maintenance and Educational Expenses

Contribution from married couple's effective income	$2,050
Contribution from couple's assets	+$ 125
Parents' contribution for applicant	+$ 420
Outside financial aid	+$ 0
TOTAL RESOURCES FOR APPLICANT	**$2,595**

d. Determination of Basic Need

Basic Budget	$3,000
Total Resources for Applicant	–$2,595
BASIC NEED	**$ 405**

Calculation of supplementary need involves (1) a determination of the supplementary budget required to maintain the applicant *and* spouse for 12 months; (2) a determination of the applicant and spouse's total after-tax income; and (3) a calculation of the difference between (1) and (2).

a.	Determination of Supplementary Budget	
	12-month moderate budget for	
	married couple with no children	$4,350
	Applicant's tuition, fees, books, supplies	+$1,900
	Unusual expenses	+$ 0
	Total budget	=$6,250
	less Basic need	−$ 405
	SUPPLEMENTARY BUDGET	**$5,845**
b.	Determination of Applicant and Spouse's Total Resources After Taxes, but Before Allowances.	
	Applicant's summer income after taxes	$1,000
	Spouse's calendar year income after taxes	+$3,500
	Parents' contribution for applicant	+$ 420
	Contribution from couple's assets	+$ 125
	Other Resources	+$ 0
	TOTAL RESOURCES FOR APPLICANT'S FAMILY	**$5,045**
c.	Determination of Supplementary Need	
	Supplementary Budget	$5,845
	less Total Resources	$5,045
	SUPPLEMENTARY NEED	**$ 800**

Concluding Remarks

The net effect of the procedures outlined in this paper is to isolate the components of a married applicant's financial need into two parts. The first is the amount of financial aid required for the married student's maintenance and direct educational costs; the second component is the amount the married student needs to support his or her family.

Several reasons were advanced in support of this procedure for determining the married student's basic financial need. It provides a methodology for measuring the married student's need for grant subsidy on a scale that is more comparable with needs analysis procedures for unmarried students. The concept of supplementary need, on the other hand, recognizes that the married student has a family to maintain, and permits this maintenance through self-help in the form of a working spouse, employment by the student, and subsidized loans.

Other advantages of this procedure are that the married student's basic need is determined according to standard procedures and contribution rates, and the calculation of an expected contribution provides a basis for ranking married students in terms of ability to pay, and subsequently establishing their priority for certain types of financial aid.

Perhaps the most appealing aspect of this procedure is the flexibility it offers the financial aid director in terms of the packaging process. A student's basic need may be met with any combination of grant and/or self-help assistance, while supplementary need would be met primarily with forms of self-help assistance. And finally, the concept of a supplementary need permits the student's family to enjoy a modest-but-adequate standard of living through self-help measures.