

DOCUMENT RESUME

ED 126 782

HE 007 609

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 TITLE Who Gets Financial Aid?  
 INSTITUTION Minnesota Univ., Minneapolis. Office for Student Affairs.  
 PUB DATE 10 Dec 75  
 NOTE 19p.  
 JOURNAL CIT Research Bulletin; v16 n3 19p Dec 10 1975

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.  
 DESCRIPTORS Academic Achievement; Aptitude Tests; College Credits; Economic Status; Family Income; \*Family Status; Fathers; \*Financial Support; Grade Point Average; \*Higher Education; Parent Education; Scholarships; \*Socioeconomic Status; \*Student Financial Aid; Student Loan Programs; Student Needs; Tuition

IDENTIFIERS \*University of Minnesota

ABSTRACT

University records of 1,048 randomly selected students were examined to determine differences among students who received financial aid, students who applied for but did not receive aid, and students who did not apply for aid. No differences were found between students who received aid and those who did not receive aid in high school rank, Minnesota Scholastic Aptitude Test scores, cumulative grade-point average, and total credits at the University of Minnesota. Large significant differences were found in father's occupation and educational level. Those who received aid came from significantly lower socioeconomic background than those who did not receive aid. Students who applied for aid but did not receive it tended to have higher aptitude test scores than both those who did not apply for aid and those who received aid. (Author)

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# office for student affairs RESEARCH BULLETIN

ED126782

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Who Gets Financial Aid?

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Student Life Studies

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## Abstract

University records of 1048 randomly selected students were examined to determine differences among students who received financial aid, students who applied for but did not receive aid, and students who did not apply for aid. No differences were found between students who received aid and those who did not receive aid in high school rank, Minnesota Scholastic Aptitude Test scores, and cumulative grade point average and total credits at the University of Minnesota. Large significant differences were found in father's occupation and educational level. Those who received aid came from significantly lower socio-economic backgrounds than those who did not receive aid. Students who applied for aid but did not receive aid tended to have higher aptitude test scores than both those who did not apply for aid and those who received aid.

HE 007609

university of minnesota

Volume 16, Number 3

December 10, 1975

## Who Gets Financial Aid?

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As tuitions at the University of Minnesota have risen in recent years, more state funds have been provided to directly aid students with their expenses. The purpose of the increases in state aid to students has been to defray the impact of raising tuitions on persons with least resources and thus to prevent the rising tuition from barring students with few financial resources from access to the University. The purpose of this study was to determine the effective criteria for financial aid dispersed through the Office of Student Financial Aid at the University of Minnesota by comparing family backgrounds, pre-college academic performances, and academic performances at the University of students who received aid with students who did not receive aid.

### Method

One thousand forty-eight students were randomly selected from the active files of students at the University of Minnesota. This sample was also used as a basis of another study of financial aid by Hendricks and Skinner (1975). The one restriction in drawing the sample was that graduate students were removed. Thus, the sample contained undergraduate students from upper and lower division and professional schools at the Twin Cities Campus of the University of Minnesota.

A special computer program was written to retrieve information on family background, high school performance, and academic performance

at the University from the computer files of Admissions and Records at the University of Minnesota. For each student, existing records were searched for father's occupation, mother's occupation, father's educational level, mother's educational level, high school rank, Minnesota Scholastic Aptitude Test score, cumulative grade point average at the University, and total credits taken at the University. Cumulative grade point average and total credits were found for all students. Mother's education and occupation were available for so few students that the information was dropped from further consideration. Father's occupation and educational level were available for 52% of the sample. High school rank was available for 43% of the sample, and Minnesota Scholastic Aptitude test scores were available for 41% of the sample. Finally, the files of the Office for Financial Aid were searched to determine which of the 1048 students had applied for aid and which had received aid. Overall, 220 of the 1048 students in the sample had applied for and received aid from the Office for Financial Aid and an additional 86 students had applied for but not received aid. Table 1 presents the distribution of students in the sample by college of enrollment and financial aid status.

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Insert Table 1

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Students in the sample represented eighteen Colleges, Schools or Institutes in the University of Minnesota. The largest numbers were from the College of Liberal Arts, Institute of Technology, College of Agriculture, Forestry and Home Economics, and General College.

ResultsCollege of Enrollment

The last column of Table 1 presents the percentage of aid recipients in the sample by College, School or Institute of enrollment. As many of the Colleges were represented by a very few students, the distribution can only be suggestive of the percentage of students from various Colleges, Schools or Institutes who receive financial aid. The obtained percentages vary widely from a high of 75% in Medical Technology (four students in the sample) to a low of Dental Hygiene, 0% of a total of five students in the sample. Overall, the medical sciences and professional schools seemed heavily represented in the upper part of the aid recipient distribution, while 17 to 26% of the students in the large four-year undergraduate Colleges received financial aid.

The Colleges were organized as to whether they were professional schools, upper division schools or four-year schools. The percentages of students who did not apply, applied but received no aid, or received aid within each of these three groupings are presented in Table 2.

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Insert Table 2

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The largest percentage of aid recipients is in the professional schools (30%), the upper division colleges or schools are intermediate (26%), and the four-year institutions are least (18%). The variation between the groupings is statistically significant at the  $p < .01$  level ( $\chi^2 = 11.42, df = 4$ ).

Performance at the University of Minnesota

Cumulative grade point averages for students who did not apply for financial aid, applied but received no aid, and received aid are presented in Table 3. The percentages for the three groups are

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Insert Table 3

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reasonably similar, with only 6 to 7% of the students falling into the lowest range (0 to 1.99 grade point averages) and 20 to 30% falling into the other ranges. No statistically significant differences were found between the groupings in Chi Square comparisons of those who did not receive financial aid (whether they had applied or not) versus those who received aid, those who received aid versus those who applied for but did not receive aid, and those who did not apply for aid versus those who applied for but did not receive aid.

Table 4 presents the percentage distributions of total credits for students who did not apply for aid; applied for but did not receive

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Insert Table 4

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aid, and received aid. For all these groups, the largest percentages are in the category of 0 - 44 credits and, with few exceptions, the percentages of students decrease as the total number of credits increases. None of the differences among the distributions of the three groups we found to be statistically significant using the Chi Square statistic.

Pre-college Performance

Table 5 presents the percentage distributions of high school

ranks for students who did not apply for financial aid, applied for but did not receive aid, and received aid. All three distributions

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Insert Table 5

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show the largest numbers of students in the top range of high school ranks, between the 80th and 99th percentiles. The distributions are similar and Chi Squares evaluating differences among the distributions failed to reveal statistically significant differences.

Percentage distributions of the Minnesota Scholastic Aptitude Test scores for students who did not apply for financial aid, applied but did not receive aid, received aid are presented in Table 6.

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Insert Table 6

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The distributions of students in the score ranges are similar for those who did not apply for aid and those who received aid, while the distribution for those who applied for but did not receive aid appears different from the other two distributions. In Chi Square analyses, no statistically significant differences were found between the distributions of those who did not apply and those who received aid, while statistically significant differences were found between the distributions of those who applied for but did not receive aid and the distributions of those who did not apply for aid ( $\chi^2 = 11.62$ ,  $df = 4$ , significant at the  $p < .02$  level) and those who received aid ( $\chi^2 = 10.61$ ,  $df = 4$ , significant at the  $p < .05$  level). The differences mostly reflect differences in the 50 to 90 and the 40 to 49 score ranges. More students who did not receive aid but applied for it had

MSAT scores in the 50 to 59 range than did either those who did not apply or those who received aid, while fewer had scores in the 40 to 49 range than either those who did not apply or those who received aid.

#### Family background

Fathers' educational levels are presented in Table 7 for students in the three financial aid groups in five categories ranging from professional and graduate degrees to less than a high school degree.

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Insert Table 7

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A smaller percentage of students who did not apply for financial aid than those who did apply had fathers with less than a high school degree (9% versus 15 and 22% respectively). In contrast, fewer of those who applied for aid had fathers with the highest educational level than did those who did not apply for aid (2 and 6% versus 18% respectively). These differences are reflected by a statistically significant Chi Square between those who did not receive aid whether or not they applied for it and those who received financial aid ( $X^2 = 24.74$ ,  $df = 4$ ,  $p < .01$  level). All other Chi Square comparisons were not significant. The group which applied for aid but did not receive it was not significantly different from either those who received aid or from those who did not apply for aid.

Table 8 presents the percentage distributions of fathers' occupations for students who did not apply for financial aid, applied but

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Insert Table 8

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did not receive aid, and received aid. The distributions are similar to the educational level distributions. Fifty-one percent of fathers of those who did not apply for financial aid are in the professional managerial occupations, while 22% of those who received aid are in these occupations. Conversely, only 11% of fathers of those who did not apply for aid are in the Service, unskilled and "other" occupations while 21% of fathers of those who received aid have these occupations. A Chi Square comparing those who received aid with those who did not, whether or not they had applied, is highly significant. ( $\chi^2 = 30.26$ ,  $df = 3$ , significant at the  $p < .01$  level). No other comparison was statistically significant. The group who applied for aid but did not receive aid was not significantly different from either those who received aid or those who did not apply for financial aid.

#### Discussion

Results of this study support the following statements:

1. A greater proportion of students in professional and upper division schools receive financial aid than those in four-year and lower division schools.
2. Financial aid recipients do not differ from non-recipients in academic performance at the University of Minnesota.
3. Financial aid recipients do not differ from non-recipients in performance in high school or in scholastic aptitude.
4. Students who apply for financial aid but do not receive aid tend to have somewhat higher academic aptitude test scores than those who do not apply for aid and those who receive aid.
5. The biggest determiner of a student's receipt of financial

aid is father's occupational level. The second biggest determiner is father's educational level.

6. Students who receive financial aid come from family backgrounds with lower occupational and educational levels than those who do not receive aid.

7. Financial aid at the University of Minnesota is dispersed to students on the basis of financial need (as indicated in this study by father's occupational and educational levels) in accordance with the purpose of state aid.

## References

Hendricks, Glenn, & Skinner, Kenneth. Recipients and non-recipients of financial aid. Report in preparation, Student Life Studies, University of Minnesota, 1975.

Table 1

Distribution by College or School of Enrollment of students who did not apply for financial aid, applied but received no aid, and received aid, and percentage of aid recipients to total enrollment by college.

School or College	Not Apply	No Aid	Aid	Total	Percent Aid Recipients
Medical Technology	1	0	3	4	75
Veterinary Medicine		2	3	5	60
Nursing	8	0	7	15	47
Medical	31	4	21	56	38
Mortuary Science	1	1	1	3	33
University	2	0	1	3	33
Law	14	3	7	24	29
Education	39	3	17	59	29
General	55	5	21	81	26
Business Administration	42	2	12	56	21
Agriculture, Forestry and Home Economics	72	11	18	101	18
Institute of Technology	78	11	20	109	18
Liberal Arts	353	30	80	463	17
Dentistry	12	10	4	26	15
Biological Science	16	2	3	21	14
Public Health	6	1	1	8	12
Pharmacy	7	1	1	9	11
Dental Hygiene	5	0	0	5	0
Totals	742	86	220	1048	21%

Table 2

Percentage distributions of students by enrollment in professional schools, upper division colleges or four year colleges for those who did not apply for financial aid, applied but received no aid, and those who received aid.

Enrollment	Not Apply	No Aid	Aid	Number in Sample
Professional	53%	17%	30%	125
Upper Division	70	5	26	171
Four Year	74	8	18	754
Number in Sample	742	86	220	1048

Table 3

Percentage distributions of cumulative grade point average of students who did not apply for financial aid, applied but received no aid, and received aid.

GPA Range	Not Apply	No Aid	Aid
3.5 - 4.00	14%	24%	14%
3.0 - 3.49	25	28	29
2.5 - 2.99	32	28	23
2.0 - 2.49	22	14	27
1.0 - 1.99	6	6	7
Number with data	741	86	221

Table 4

Percentage distributions of total credits of students who did not apply for financial aid, applied but received no aid, and received aid.

Total Credits	Not Apply	No Aid	Aid
170 -	10%	7%	12%
135 - 169	11	7	9
90 - 134	20	15	19
45 - 89	26	23	25
0 - 44	33	48	35
Number with data	741	86	221

Table 5

Percentage distributions of high school ranks of students who did not apply for financial aid, applied but received no aid, and received aid.

High School Rank	Not Apply	No Aid	Aid
80 - 99	50 %	68%	60%
60 - 79	27	15	19
40 - 59	11	6	12
0 - 39	12	12	9
Number with data	330	34	94

Table 6

Percentage distributions of MSAT scores of students who did not apply for financial aid, applied but received no aid, and received aid.

MSAT Score	Not Apply	No Aid	Aid
60 -	8%	6%	14%
50 - 59	24	44	23
40 - 49	32	9	23
30 - 39	24	32	22
- 29	12	9	18
Number with data	310	34	90

Table 7

Percentage distributions of fathers educational levels for students who did not apply for financial aid, applied but received no aid and received aid.

Educational Level	Not Apply	No Aid	Aid
Professional/Graduate degree	18%	2%	6%
College degree/some Graduate work	25	28	12
Some College/Business or Trade School	21	18	23
High School Graduate	26	36	36
Less than High School Graduate	9	15	22
Number with data	400	39	111

Table 8

Percentage distributions of fathers occupations for students who did not apply for financial aid, applied but received no aid and received aid.

Occupations	Not. Apply	No Aid	Aid
Professional/Managerial	51%	34%	22%
Farm	4	13	10
Sales/Clerical Office	16	18	21
Skilled Trades	18	24	26
Services/Unskilled/Other	11	11	21
Number with data	393	38	115