Middle Income Undergraduates: Where They Enroll and How They Pay for Their Education

Executive Summary

Jennifer B. Presley
Suzanne B. Cleary
JBL Associates, Inc.

C. Dennis Carroll
Project Officer
National Center for Education Statistics

U.S. Department of Education
Office of Educational Research and Improvement   NCES 2001–155
The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

NCES activities are designed to address high priority education data needs; provide consistent, reliable, complete and accurate indicators of education status and trends; and report timely, useful and high quality data to the U.S. Department of Education, the Congress, the states, other education policymakers, practitioners, data users, and the general public.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other NCES product or report, we would like to hear from you. Please direct your comments to:

National Center for Education Statistics
Office of Educational Research and Improvement
U.S. Department of Education
1990 K Street, NW
Washington, DC 20006

August 2001

The NCES World Wide Web Home Page address is: http://nces.ed.gov

Suggested Citation

For ordering information on this report, write:
U.S. Department of Education
ED Pubs
P.O. Box 1398
Jessup, MD 20794-1398

or call toll free 1-877-4ED-Pubs.

Content Contact:
Aurora D'Amico
(202) 502-7334
EXECUTIVE SUMMARY

The need for financial aid or other financial help, such as tuition tax credits, to assist students from middle income families to attend the college of their choice has received increased attention recently. This report provides a profile of middle income undergraduates in comparison to their lower income and higher income counterparts and examines where middle income students enroll by price of attendance and how they and their families pay for college, including the role of financial aid.

The source of data for this analysis was the 1995–96 National Postsecondary Student Aid Study (NPSAS:96). The report is limited to full-time, full-year (FTFY) dependent undergraduates who were enrolled during 1995–96.

In this report, middle income undergraduates are defined as those with family incomes between $35,000 and $69,999 in 1994, the year of the income data included in the NPSAS:96 database. Undergraduates from families with incomes below $35,000 are defined as lower income, and those from families with incomes of $70,000 or more are defined as higher income. Thirty-seven percent of FTFY dependent undergraduates in the sample were middle income according to this definition, 35 percent were lower income and 28 percent were higher income.

Because the financing strategies that students use to pay for college vary by price of attendance, results are provided for four price-of-attendance levels: lowest price of attendance (less than $6,000), moderate price of attendance ($6,000 to $8,499), upper price of attendance ($8,500 to $15,999) and highest price of attendance ($16,000 or more). The price of attendance is the FTFY dependent undergraduate budget, which represents the total expected expenses for a FTFY dependent undergraduate to attend college in 1995–96, including tuition, fees, and nontuition expenses.

PROFILE OF MIDDLE INCOME FULL-TIME, FULL-YEAR DEPENDENT UNDERGRADUATES

Middle income FTFY dependent undergraduates in 1995–96 were 53 percent female, 81 percent white, non-Hispanic, and nearly all came from families with at least three family members. About one-third were first generation college students (i.e., their parents had no more than high school degrees as their highest level of education completed), one-quarter had parents with bachelor’s degrees, 16 percent had parents with master’s degrees, and 5 per-
cent had parents with doctoral or first-professional degrees. Thirty-seven percent of middle income FTFY dependent undergraduates lived on campus, while 35 percent lived with their parents or relatives. Forty-five percent were first-year/freshmen.

**Price of Attendance**

Price of attendance is the student budget for FTFY dependent undergraduates for 1995–96, including tuition and fees and total non-tuition costs. Of the middle income FTFY dependent undergraduates, 8 percent were enrolled at the lowest price-of-attendance level, 21 percent at the moderate price-of-attendance level, 49 percent at the upper price-of-attendance level, and 23 percent at the highest price-of-attendance level (figure A).

The percentages of FTFY dependent undergraduates from lower income and middle income families enrolling at each price-of-attendance level were about the same, but a smaller percentage of each of these two income groups (20 and 23 percent) was enrolled at the highest price-of-attendance level than of the higher income group (34 percent). Middle income FTFY dependent undergraduates with mid-range combined SAT scores of 825-1,199 were less likely to be enrolled at the highest price-of-attendance level than were those with similar SAT scores in the higher income group. Again, the enrollment of middle income and lower income FTFY dependent undergraduates by price-of-attendance level was about the same within the same SAT range. In all three income groups, the percentages of those with SAT scores of 1,200 or more that were enrolled at the highest price-of-attendance level were not statistically different, standing at 54 percent overall.

**Figure A.**—Percentage distribution of full-time, full-year dependent undergraduates from middle income families, by price-of-attendance level: 1995-96

<table>
<thead>
<tr>
<th>Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest</td>
<td>23%</td>
</tr>
<tr>
<td>Upper</td>
<td>49%</td>
</tr>
<tr>
<td>Moderate</td>
<td>21%</td>
</tr>
<tr>
<td>Lowest</td>
<td>8%</td>
</tr>
</tbody>
</table>

*NOTE: Percentages may not sum to 100 due to rounding. Dependent undergraduates are limited to those who attended only one institution and were U.S. citizens or permanent residents.*


Multivariate analysis showed that even after controlling for student background and family factors likely to affect enrollment at the highest price-of-attendance level, the percentage enrolled at this level was still lower for middle income FTFY dependent undergraduates (23 percent) than their higher income counterparts (30 percent). Factors associated
with enrollment at the highest price-of-attendance level, in addition to family income, included being female, having parents whose highest level of education was a doctoral or first-professional degree, and having combined SAT scores of 1,200 or more.

**FINANCIAL NEED AND FINANCIAL AID**

Financial need is defined as student budget minus expected family contribution (EFC). EFC is the amount that the family and the student are expected to contribute toward the price of attendance, based on formulas for calculating financial aid awards.¹ Virtually all families in the middle income group are expected to pay part of the price of attendance from their own resources. The amount that remains after subtracting EFC is the student’s financial need. It is possible that even after all aid is awarded, some students will have unmet need.

In 1995–96, four out of five middle income FTFY dependent undergraduates (79 percent) had some financial need, compared with almost all of those in the lower income category (99 percent), and one-third of those in the higher income category (table A). Middle income FTFY dependent undergraduates with financial need had an average of $7,785 of financial need.

Sixty-five percent of middle income FTFY dependent undergraduates received financial aid, 55 percent having financial need and 10 percent not having financial need. Overall, middle income FTFY dependent undergraduates had 31 percent of their price of attendance covered by financial aid, and more than one-half (58 percent) had unmet need after financial aid and expected family contribution (EFC).

One-third of middle income FTFY dependent undergraduates with unmet need had not applied for financial aid. Reasons given included a belief that family income was too high (32 percent) or that the family could afford to pay (48 percent). But for those who did apply for aid, but did not have their financial need met, it could mean that they and their families were making greater financial effort to attend their institution of choice.

Net price, or the difference between price of attendance and total financial aid received, is the amount of out-of-pocket expenses that students and their families must come up with to attend the colleges in which they enroll. By examining student earnings and the percentage

---

¹Expected family contribution (EFC) is based on dependency, family size, income, assets and number in college. In order to calculate how much federal financial aid students can receive, federal regulations provide a methodology that assesses how much the family and the student should contribute towards the price of attendance. See Chapter 7 of the 1999-2000 Student Financial Aid Handbook, U.S. Department of Education, for more information.
Table A.—Financial status for all full-time, full-year dependent undergraduates, by family income: 1995-96

<table>
<thead>
<tr>
<th>Price of attendance at institution where enrolled</th>
<th>Expected family contribution (EFC) at any postsecondary institution</th>
<th>Ratio of expected family contribution to price of attendance</th>
<th>Percent with financial need</th>
<th>Amount of financial need for those with need</th>
<th>Grant aid</th>
<th>Total loan</th>
<th>Net price for all</th>
<th>Percent with unmet need</th>
<th>Unmet need for those with unmet need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$12,663</td>
<td>$8,697</td>
<td>77</td>
<td>72.6</td>
<td>$8,921</td>
<td>$2,230</td>
<td>$2,014</td>
<td>$8,113</td>
<td>57.6</td>
</tr>
<tr>
<td>Family income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower income</td>
<td>11,715</td>
<td>1,617</td>
<td>16</td>
<td>98.5</td>
<td>10,372</td>
<td>3,560</td>
<td>2,158</td>
<td>5,628</td>
<td>86.9</td>
</tr>
<tr>
<td>Middle income</td>
<td>12,284</td>
<td>6,865</td>
<td>68</td>
<td>78.6</td>
<td>7,785</td>
<td>1,873</td>
<td>2,229</td>
<td>7,867</td>
<td>58.3</td>
</tr>
<tr>
<td>Higher income</td>
<td>14,316</td>
<td>19,729</td>
<td>162</td>
<td>33.1</td>
<td>7,198</td>
<td>1,076</td>
<td>1,557</td>
<td>11,462</td>
<td>20.9</td>
</tr>
</tbody>
</table>

1Expected Family Contribution (EFC) may exceed actual student budget; therefore, the average EFC reported in this table cannot be used to calculate financial need and unmet need reported in this table.
2Includes zero values.
3Student budget minus EFC.
4Student budget minus all aid.
5Student budget minus EFC minus aid.

NOTE: Dependent undergraduates are limited to those who attended only one institution and were U.S. citizens or permanent residents.


of students with parents contributing to their college expenses, we can gain an additional perspective on how students and their families cover college expenses.

The average net price for middle income FTFY dependent undergraduates in 1995–96 was $7,867. Net price increased as price-of-attendance level increased, but average student earnings were lowest at the highest price-of-attendance level.

At the lowest price-of-attendance level, student earnings for middle income FTFY dependent undergraduates averaged $4,478, the average net price of attendance was $4,581, and 84 percent of these students reported that their parents contributed to their college expenses. At the moderate price-of-attendance level, average student earnings for middle income FTFY dependent undergraduates of $3,737 covered a considerable amount of the $5,668 net price of attendance, while 88 percent of these students reported that their parents contributed to their college expenses. The amounts of parental contributions toward the net price of attendance are not known, but...
the data suggest that middle income FTFY dependent undergraduates who were enrolled at the lowest and moderate price-of-attendance levels could meet or exceed the net prices of attendance with their own earnings and a modest contribution from their parents. Perhaps these students attended at the lowest and moderate price-of-attendance levels in order to reduce (but not eliminate) the amount of EFC that their parents needed to contribute, or to increase their available discretionary income, or both.

With a sizable gap between average net price ($7,632) and average student earnings ($3,419) for the 49 percent of middle income FTFY dependent undergraduates enrolled at the upper price-of-attendance level, 91 percent reported that their parents contributed toward expenses. EFC for middle income FTFY dependent undergraduates enrolled at this price-of-attendance level was $6,913. Thus, it appears that FTFY undergraduates attending at the upper price-of-attendance level can, on average, meet the net price of attendance through student earnings and parental contributions below EFC.

For the 23 percent of middle income FTFY dependent undergraduates enrolled at the highest price-of-attendance level, the gap between net price and student earnings was $8,919, which is more than the average EFC of $7,024 for these undergraduates’ families. In addition, student earnings for middle income FTFY dependent undergraduates at the highest price-of-attendance level were lower than earnings for those at other price-of-attendance levels. At the highest price-of-attendance level, 96 percent of parents were reported to contribute to the price of attendance. Again, we do not know the actual amounts contributed by parents, but these data suggest that parents may have contributed amounts that exceeded their EFC by several thousand dollars. This gap between net price, student earnings, and EFC may explain why a smaller percentage of middle income FTFY dependent undergraduates with mid-range SAT scores were enrolled at the highest price-of-attendance level in comparison to those in the higher income group, with more financial resources to meet out-of-pocket expenses. Perhaps middle income parents, on average, made additional financial effort to pay for their dependents who were among the best scholastically, but did not make additional financial effort for those who were mid-range students scholastically. Another reason may be that institutions in the highest price-of-attendance level may not practice need-blind admissions, but balance applicants’ academic strengths with their financial aid needs, resulting in fewer enrollees with mid-range scores who have higher financial need.

**Sources of Financial Aid**

In 1995–96, one-half of middle income FTFY dependent undergraduates with financial need received loans, accounting for 42 percent of their aid, while 52 percent received
grants, accounting for 44 percent of their aid, with work-study and other types of aid providing the remaining aid.

Institutional grants constituted the most common source of grant aid for middle income FTFY dependent undergraduates with financial need, as well as those in the higher income group. The percentages of FTFY dependent undergraduates with need who received institutional grants, as well as the average institutional awards that they received, were about the same for each family-income level. In each income category, larger percentages of FTFY dependent undergraduates with need received institutional grants if they were enrolled at the highest price-of-attendance level. At the highest price-of-attendance level, about two-thirds of those with need in the lower and middle income groups received institutional grants, compared with 46 percent of those in the higher income group. In addition, the average award was smaller for those in the higher income group. Institutional grants constituted an important component of financial aid packages that assisted in providing access at the highest price-of-attendance level, especially for lower and middle income undergraduates.

Overall, middle income FTFY dependent undergraduates with financial need were about as likely to borrow as their lower income counterparts, and the amounts they borrowed were about the same, but they were more likely to borrow than were their higher income counterparts. The percentage of middle income FTFY dependent undergraduates with need who borrowed was larger at each price-of-attendance level. For those with no financial need, the percentage borrowing was larger than the percentage borrowing from the higher income group.

**Summary**

Lower income and middle income FTFY dependent undergraduates have similar price of attendance enrollment patterns. Those from the lower income and middle income group use more financial aid than do those in the higher income group. Lower income and middle income FTFY dependent students do not enroll at similar price-of-attendance levels as their counterparts in the higher income group, with the exception of those undergraduates with SAT scores of 1,200 or more.