Campus-Based Practices for Promoting Student Success: Financial Aid

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The Midwestern Higher Education Compact is a non-profit regional organization, established by compact statute, to assist Midwestern states in advancing higher education through interstate cooperation and resource sharing. Member states are: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The Compact seeks to fulfill its interstate mission through programs that:

- Expand postsecondary opportunity and success;
- Promote innovative approaches to improving institutional and system productivity;
- Improve affordability to students and states; and
- Enhance connectivity between higher education and the workplace.

About this MHEC Research Brief Series

This research brief is drawn from specific topics examined in the forthcoming MHEC report, *Institutional Practices Conducive to Student Success: An Overview of Theory and Research.*

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Campus-Based Practices for Promoting Student Success: Financial Aid

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Financial Aid

According to the College Board (2012), approximately $185 billion in financial aid was distributed to undergraduate students in 2011-12, including federal grants (26 percent), federal loans (38 percent), state grants (5 percent), institutional grants (18 percent), and federal work-study (less than 1 percent). Financial aid can presumably influence student success by increasing the perceived value of college and affording the time and energy necessary for academic engagement (Astin, 1993; Cabrera, Nora, & Castaneda, 1993; St. John et al., 2000). Financial aid may be particularly critical for promoting full-time enrollment, continuous enrollment, and a manageable balance of school and work responsibilities, which influence the likelihood of timely degree completion (Adelman, 2006; Attewell, Heil, & Reisel, 2012; Hossler et al., 2009). For example, Attewell, Heil, and Reisel (2012) accounted for differences in student background characteristics and found that the five-year graduation rate was 5 percentage points lower among part-time than full-time students at four-year institutions and 10 percentage points lower among part-time students at two-year colleges. Regarding the continuity of enrollment, the five-year graduation rate was 4 percentage points higher among students who enrolled during the first summer term at four-year institutions and 16 percentage points higher among students with summer term enrollment at two-year colleges, relative to students who stopped out during the summer (Attewell, Heil, & Reisel, 2012). Finally, students who work more than 15 hours per week (either to avoid loans or to bridge the cost-aid gap) are less likely to complete their degrees than students who work fewer hours (Horn & Berktold, 1998; Perna et al., 2006).

The relationship between financial aid and student success, however, is partly determined by the nature of the aid package. Whereas the receipt of grant aid and work-study has generally yielded a positive effect on student persistence, the receipt of loan aid has been unassociated with persistence (Hossler et al., 2009; U.S. General Accounting Office, 1995). Moreover, the accumulation of student loan debt has been mainly negatively correlated with persistence (Hossler et al., 2009). This brief thus summarizes key findings from research that may inform institutional policy regarding grant aid and work-study programs.

Institutional Grant Aid

Institutional grant aid, also termed tuition discounting, may be awarded to students based on academic merit, financial need, or a combination thereof. The proportion of institutional aid allotted to meet financial need ranges from 73 to 80 percent at selective institutions and 59 to 62 percent at less selective institutions (College Board, 2012). A sizeable body of research has indicated that the receipt of either need- or merit-based aid increases the likelihood of student persistence (Hossler et al., 2009; Castleman & Long, 2013). Castleman and Long (2013) found that an additional $1,000 in Florida Student Access Grant eligibility was associated with a 4 percentage point increase in the likelihood of attaining a bachelor's degree within six years. However, grant aid yields a larger statistical effect during the first two years than during subsequent years (DesJardins et al., 2002; U.S. General Accounting Office, 1995). Among first-year, low-income students at four-year colleges, an additional $1,000 in grant aid has been associated with a 23 percent reduction in the probability of dropping out during the first year and an 8 percent reduction during the second year, but no effect was detected during the third year (U.S. General Accounting Office, 1995). It remains unclear whether linking student aid with academic performance, termed performance-based scholarships, yields an additional beneficial effect (Patel & Rudd, 2012).

While the receipt of grant aid significantly determines the net cost of college for many students, financial aid packages frequently leave students from low-income families with relatively higher unmet need, that is, the total cost of enrollment minus the student's expected family contribution (based on family income) and grant aid.[1] Among full-time, dependent community college students, for instance, those in the lowest income quartile had an average unmet need of $7,080, but full-time students in the highest income quartile had an average unmet need of $242 (Choitz & Reimherr, 2013). Lower-income students with high unmet need may thus be at greater risk of part-time and discontinuous enrollment, working more than 15 hours per week, and accumulating excessive student loan debt (see Choitz & Reimherr, 2013). Moreover, lower-income students exhibit greater price sensitivity than higher-income students (Bowen, Chingos, & McPherson, 2009; Heller, 2001). For example, Bowen, Chingos, and McPherson (2009) observed that the net price of enrollment was negatively correlated with the graduation rates of low-income students but not of high-income students. Accordingly, Baum et al. (2012) argued that the effect of grant aid can be maximized by targeting students with the greatest financial need.

Work-Study Programs

More than 3,000 institutions participate in the federal work-study program, which allows students to earn federal aid through part-time employment on or off campus (U.S. Department of Education, 2014). Dissimilar to the receipt of grant aid or loans, on-campus work-study programs may influence persistence not only by directly reducing the financial burden of college but also by promoting social integration within the campus community (St. John et al., 2000). Reviews of past research have concluded that participation in work-study programs increases the likelihood of persistence (Pascarella & Terenzini, 2005; Hossler et al., 2009). Alon (2005) controlled for aid eligibility status and found that an additional $1,000 in work-study aid increased the probability of graduation in six years by 23 percentage points among students at 22 selective four-year institutions. More recently, an analysis of over 5,000 students enrolled at 400 four-year institutions revealed that participation in work-study programs predicted lower odds of student dropout (Chen, 2012). However, Scott-Clayton's (2011) quasi-experimental study demonstrated that participation in work-study programs at public two- and four-year institutions in West Virginia predicted higher first-year GPA among male students but lower GPA and degree completion rates among female students.

Although many students appear to benefit from participation in work-study programs, wage levels and job type may prove to be significant levers for enhancing student outcomes. A national survey of work-study participants in 1998 indicated that 28 percent of students held a second job, primarily to earn more money[2] (U.S. Department of Education, 2000). As St. John (2004) noted, any positive effects of work-study participation may be weakened if wages fail to match the cost of living (see MIT, 2014), thereby forcing students to work an excessive number of hours.

Another potentially significant source of variation in work-study programs concerns the alignment of work tasks with students' interests (Pascarella & Terenzini, 2005). According to the U.S. Department of Education (2000), the types of jobs held by work-study participants vary considerably: office or clerical (43 percent), community service (13 percent), library support (10 percent), computer support (5 percent), recreation services (5 percent), research (5 percent), and other (19 percent).

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[1] Another level of unmet need can be computed as the total cost of enrollment minus the expected family contribution, grant aid, and loans.
[2] Students were paid an average of $8.84 per hour in 2014 dollars.

Students naturally differ in the degree to which they find such work intrinsically interesting rather than a mere means to pay bills. For example, 85 percent of students in community service positions reported that their work assignments were interesting, compared to 61 percent of non-community service participants. Moreover, less than 40 percent of work-study participants agreed that their job was related to their academic program or career interests (U.S. Department of Education, 2000). It can be speculated that the degree of alignment between work-study programs and student interests ultimately influences the likelihood of persistence. Research in the field of industrial psychology has demonstrated that the extent to which work tasks and contexts match an individual's skills, interests, personality, and values (frequently termed person-environment fit) is strongly negatively correlated with intent to quit (Kristof-Brown, Zimmerman, & Johnson, 2005: r=. -.46). Further inquiry is needed to better understand the role of wages and person-environment fit in work-study programs.

Recommended Practices

- Minimize the use of loans in financial aid packages.
- Target students with high financial need to maximize the effect of grant aid.
- Consider front-loading grant aid during the first half of the college program.
- Ensure that aid packages do not inadvertently force students to work more than 15 hours per week.
- Provide aid during intersessions (e.g., winter, summer, J-term, May term) to promote continuous enrollment.
- Provide sites for high-value work-study experiences that inform academic coursework, promote civic service, build social capital, and foster work skills and achievements relevant to vocational aspirations.
- Ensure that work-study programs provide a living wage.

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