Math Partnerships

Partners for Success and the Alliance for College Readiness have been working together on a mathematics curriculum alignment project with Districts 211, 214, and 220 since the fall of 2009. As a part of that project, two upcoming workshops will be held at Hoffman Estates High School to work collaboratively on a database of questions for Harper College’s MTH080 departmental final.

An instructor from each of the 12 area high schools along with several Harper math faculty will be attending both of those workshops. Students in our feeder district high schools will then be given the opportunity to take Harper’s MTH080 departmental final exam in May 2012.

Juniors who score high enough on that final will be able to use that score (along with C’s in geometry) to meet the requirements for placement into the dual credit MTH101 course their senior year. Seniors who score high enough on that final will be able to use that score (along with C’s in geometry) to meet the requirements for placement into any of the math gatekeeper courses here at Harper in the following year.

Table 1: Harper College Fall Math Enrollments by Course (Same Year Graduates)

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In fall 2011, there was a 6 percent increase in the number of students who started in a college level math course, from 44 percent in fall 2010 to 50 percent in fall 2011. There was a 4 percent increase in the number of students who would be eligible to start a college-level math course within one semester of enrolling at Harper College, from 69 percent in fall 2010 to 73 percent in fall 2011. Finally, in fall 2011 there was a 4 percent decrease in the number of students who enrolled in the two lowest developmental math courses, from 31 percent in fall 2010 to 27 percent in fall 2011.

Key Findings from the “Partners for Success” High School Testing Project

Findings
Fall 2011 represents the first complete Partners for Success cycle testing for District 211 students and the creation of baseline results for District 214 and District 220. Five key findings are highlighted:

1. There is an increase in the number of District 211 Algebra II students enrolling in a math course during their senior year in high school.
   - In academic year 2009-2010 (80%), 2010-2011 (88%), and 2011-2012 (88%)

2. There is an increasing number of students who participate in Partners for Success:
   - 920 additional juniors participated in Partners for Success in 2010-2011 compared to 2009-2010

3. In fall 2011 there was an increase in the number of students who started a college level math course (50%) at Harper College, compared to students who enrolled in fall 2010 (44%)

4. There will be an increase in the number of students who will be eligible to enroll in a college level math course within one semester of enrolling at Harper College in fall 2011 (73%) compared to fall 2010 (69%)

5. In fall 2011 there was a decrease in the number of students enrolling in developmental coursework in math at Harper College.
   - For those students who did begin developmental coursework in math, more students tested and enrolled in higher levels of developmental math in fall 2011 than students who enrolled in developmental math coursework in fall 2010

Conclusion
The results from the first cycle of the Partners for Success program have yielded promising results. Preliminary findings indicate that the Partners for Success program has made gains in addressing the two main objectives of the partnership.
The figure above shows a pipeline for the 2008 cohort of credential seeking students enrolled in any developmental course. Of this group of students, 56 percent were successful in attaining the initial momentum point, completing 15 college credits. Nearly 40 percent successfully completed at least 30 college credits. Approximately 23 percent of the starting cohort did not enroll in at least 15 credit hours.

The figure also shows that 13 percent of credential seeking students achieved the milestone of graduation within 150 percent of normal time, which is 2 percentage points below the overall Harper College graduation rate. According to the National Center for Education Statistics data, one-third of students entering postsecondary education are required to take remedial courses in at least one subject; at community colleges, nearly half of these students fail to matriculate to the second year due to a lack of preparation to engage in college-level courses. Adelman (2004) also confirms that students placed into developmental courses are less likely to complete college than those who are not. These pipelines allow our institution to see patterns and be able to use the data to inform policies or practices. If our institution is to effectively address the needs of an ever-changing student body, we must engage data to produce clear pathways of student success.
Harper College Student Pipelines

2008 Credential Seeking Student Developmental Student Pipelines

- Completed 15 college level credits
- Completed 30 college level credits
- Completed 30 college level credits in one year
- Completed a career exploration or introduction course

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2008 Credential Seeking Student Developmental Math Student Pipelines

- Earned 30 College Credits
- Complete 30 College Credits
- Not Earned 30 College Credits

The figure above shows a pipeline for the 2008 cohort of credential seeking students enrolled in any level of developmental math. Displaying the student-level data graphically provides clear insight into the areas of success and opportunities for improvement. Of the initial group of 668 students, 65 percent were successful in attaining the momentum point of completing 15 college credits. Nearly 48 percent successfully completed at least 30 college credits. Conversely, approximately one-third of the starting cohort did not enroll in at least 15 credit hours.

On a national level, math is the subject that requires more remedial assistance than any other subject (Adelman, 2004). Specifically, 28 percent of community college students take at least one remedial course in any level of mathematics (Attewell, Lavin, Domina, and Levey, 2006). This highlights the need to work more closely with high schools to develop strategies that will better prepare students, specifically in the subject of mathematics.
## Math Partnerships

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### Student Success Matters

### Key Findings from the “Partners for Success” High School Testing Project

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**Harper College’s Feeder High Schools**

- **District 211**
  - James B. Conant High School
  - William Fremd High School
  - Hoffman Estates High School
  - Palatine High School
  - Schaumburg High School

- **District 220**
  - Barrington High School

- **District 214**
  - Buffalo Grove High School
  - Elk Grove High School
  - John Hersey High School
  - Prospect High School
  - Rolling Meadows High School
  - Wheeling High School

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**Background**

In 2008, Harper College partnered with Illinois High School District 211 to conduct a study to assess what factors predicted math course enrollment of District 211 graduates entering Harper College in the fall term after graduating high school. The key finding of this study indicated that the most significant predictor of math course enrollment at Harper was whether a student had taken a math course during their senior year of high school. Based on the findings of the aforementioned study, Harper College and District 211 began to pilot Partners for Success, a high school COMPASS testing program targeted at juniors who were currently enrolled in Algebra II.

There are two major goals of Partners for Success. The first is to increase the number of students who take Algebra II as juniors to enroll in a math course their senior year, and the second is to decrease the number of students that begin math at Harper College at a development level. Preliminary findings presented in fall 2010 indicated that there was an eight percent increase in the number of District 211 Algebra II students taking a math course in their senior year compared with fall 2009. These findings, paired with the formation of the Northwest Educational Council for Student Success, expanded the implementation of Partners for Success to District 214 and District 220 for different groups of students.

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**Questions?**

Contact the Planning and Institutional Effectiveness Division at x0950