Math 404 and 414 Improvement (Spring 11)

Introduction
In order to better understand the effect of Math 404 and 414 on student improvement, a series of examinations were conducted.

Below are the findings from these examinations:

Math 404 Improvement
- Of those who passed Math 404A either in 07/08 or 08/09 (n=14), 0% of them passed Math 205 through Fall 10.
- Of those who passed Math 404A either in 07/08 or 08/09 (n=14), 14% of them enrolled in Math 205 through Spring 11.
- Of those who passed Math 404E either in 07/08 or 08/09 (n=8), 12.5% of them passed Math 205 through Fall 10.
- Of those who passed Math 404E either in 07/08 or 08/09 (n=8), 12.5% of them enrolled in Math 205 through Spring 11.

Math 414 Improvement
- Of those who passed Math 414 either in 07/08 (n=35), 14% of them passed Math 205 through Fall 10 and 25.7% were enrolled.
- Of those who passed Math 414 either in 07/08 (n=35), 37.1% of them passed Math 233 through Fall 10 and 57.1% were enrolled.
- Of those who passed Math 414 either in 07/08 (n=35), 5.7% of them passed Math 402 through Fall 10 and 8.6% were enrolled.

Summary
Prior to the analysis of findings, it must be acknowledged that the samples examined above are very small. Small samples are more likely to be affected by confounding factors. Moreover, many students may take longer to complete the target course than the time allotted for this examination. Recognizing these weaknesses, some findings seem to have emerged. For example, most students who take Math 404, either A or E, never complete Math 205.

Most students who take Math 414 never complete Math 402 or Math 205. A much greater proportion, 37% complete Math 233. A much greater number actually enroll in Math 233. Unfortunately, only 65% of these student successfully completed Math 233. Thus, it appears that many Math 414 students do not go on to complete higher levels of Math within a short timeframe.