A comparative analysis of student retention, achievement and attitudes is made for first-year calculus students using a well-known online homework system. Limited differences in overall achievement were seen compared to a control group, though not on all individual assessments. The class with online homework had a higher retention rate, but also had a larger proportion of withdrawals close to the final deadline.

Student surveys taken at multiple points in the semester indicate a general preference for online homework in both groups, but the motivation behind the preference is unclear. Additional analyses from the surveys are also presented. (Received September 22, 2011)