Colm Mulcahy* (colm@spelman.edu) and Ed Burger (eburger@williams.edu). Re-thinking How We Introduce Mathematics to First Year Students. Preliminary report.

Mathematics, like music and art, is a thriving dynamic area of human creativity with many sparkling gems, both classical and modern, that are accessible to students with essentially no technical training. Little, if any, evidence of that can be found in the courses most colleges place students into in their first year. On the contrary, the usual college algebra/precalculus sequence appears to be designed to intentionally crush curiosity and stifle the imagination, and it offers material that students have unsuccessfully encountered at least twice before.

Moreover, the traditional intro courses deliberately conceal the organic process of mathematical discovery and the joy of thinking and instead focus on a frantic attempt to have students master rote skills whose only utility is to pass the next exam.

What are the consequences of such curriculum on our profession, and on humankind in general? How can we turn this situation around? Should we turn this situation around? (Received September 20, 2007)