

1056-BE-1510 **Michael C Burke*** (burke@smccd.edu), Mathematics Department, College of San Mateo, 1700 W. Hillsdale Blvd., San Mateo, CA 94402. *Preliminary Thoughts on Quantitative Literacy*. Preliminary report.

It is generally acknowledged that we teach an overly broad mathematics curriculum; for motivation, we include applications selected to support that curriculum. The applications are often contrived, trivial, and of little interest or importance to our students. It is not clear that this curriculum meets the QL needs of the majority of our students. Although we bemoan the bloated state of the curriculum, it has been difficult to find an organizing principle around which to imagine genuine curricular change. I suggest a new approach: reverse the relationship between curriculum and applications. First, we ask "What are the important, compelling problems that our students will face in the future – problems such as global warming, nuclear waste, species extinction, world population?" We follow with the question "What mathematics must our students know in order to be able to address these problems?" That is, I propose that we use compelling, non-mathematical problems to drive our mathematics curriculum. In my experience, this approach leads to much greater student interest. I plan to illustrate with assignments I have used at the College of San Mateo, to look carefully at student work and response, and to discuss implications of this approach for the teaching of QL. (Received September 22, 2009)