1077-I1-2195   **Anand L Pardhanani*** (`pardhan@earlham.edu`), Mathematics Department, Earlham College, Richmond, IN 47374. *Social justice modeling contexts for teaching calculus and higher level math courses.*

The idea of integrating mathematics with social justice is motivated by two complementary goals: (i) to utilize mathematics for understanding and seeking solutions to social problems, and (ii) to learn and develop new mathematics through application to social justice needs. Interest in this area has been growing in recent years, as evidenced by presentations and sessions on these topics at conferences, and in the growth of related publications.

These and other similar efforts have resulted in the availability of some modest literature on social justice applications of mathematics. However, a common impediment to using ideas from such literature, particularly for college level math courses, is that the mathematical content is often elementary and frequently involves topics from only statistics.

In this presentation I will discuss some alternate ways to bring social justice contexts into teaching college level courses beyond elementary statistics, via a modeling framework. I will give examples of application models that would work well for calculus sequence courses, differential equations and more. The presentation will include pointers on how to find sources for social justice applications, and how to integrate them into a mathematical modeling framework. (Received September 21, 2011)