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Barbara Lee Keyfitz* (bkeyfitz@math.ohio-state.edu), Mathematics Department, The Ohio State University, 231 West 18th Avenue, Columbus, OH 43210. *Conservation Laws - Not Exactly a la Noether.*

Emmy Noether's famous theorem connects "conservation laws" with symmetries, and so perhaps the first thing that a speaker should do in a talk bearing her name is to explain that the relation between that theorem and the research area of hyperbolic conservation laws is not very close. That done, I will describe the main features of conservation law theory, beginning with the role of weak solutions (which break symmetry), and elements of the theory in a single space variable, which is now in a reasonably satisfactory state, and concluding with an outline of the current state of the theory for multidimensional conservation laws. Here there are a few results, most of them very recent. (Received September 20, 2011)