Rick Klima* (klimare@appstate.edu), Appalachian State University, Department of Mathematical Sciences, 342 Walker Hall, 121 Bodenheimer Drive, Boone, NC 28608. Arrow’s Actual Impossibility Theorem.

Over the past few decades, a variety of topics from the science of social choice and decision making have made their way into mainstream liberal arts collegiate mathematics courses. One of these topics is the mathematics of voting methods and fairness criteria, often leading to a presentation and sometimes a discussion of Kenneth Arrow’s famed impossibility theorem, which won Arrow the 1971 Nobel Prize in Economic Science. However, there is a distinct and notable lack of consensus among textbooks that serve liberal arts collegiate mathematics courses on what Arrow’s theorem states. In this talk, I will summarize a few of the different ways in which Arrow’s impossibility theorem is presented in textbooks that serve liberal arts collegiate mathematics courses, and also summarize what Arrow’s impossibility theorem actually states (i.e., what Arrow himself actually stated in his own writings on the subject). (Received November 30, 2018)