1116-VR-1996 Ian Pierce* (ian.pierce@usafa.edu). Not ready for calculus? What we've tried.... Preliminary report.

Students at the United States Air Force Academy must complete two semesters of calculus and a number of other technical classes to earn their degree. What is the best way to help the students who arrive with the weakest algebra skills? Is it better to place them in a separate algebra class or to develop their algebra skills while they take calculus? If they are in a separate algebra class, what should be the goals of that class (technical acuity versus problem-solving)? We consider four approaches: a computational-intensive ("traditional") pre-calculus and algebra class, a modelling-based pre-calculus and algebra, an integrated approach (which included extra algebra support in first-semester calculus), and a "mainstreaming" approach. (Received September 21, 2015)