RESEARCH PROGRAM
Dr. Feldman’s research focuses on the preparation of mathematics teachers and mathematics teacher educators. It is driven by three projects.

Elementary Preservice Teachers Mathematics Project (EMP)
Dr. Feldman is a co-PI on the EMP project, an NSF funded project (2009-2011; 2013-2016; 2016-2021) that develops and tests instructional units for use in mathematics content courses for prospective elementary teachers. Three units (Fractions, Number Theory, and Geometric Measurement) have been tested at more than forty institutions across the U.S. and Canada. Additional units around whole number concepts and operations, decimals, and geometry are under development. Each unit includes multiple lessons, instructor guides, homework materials, and videos of classroom instruction. Based on extensive field testing, these units serve as a promising curricular tool for strengthening prospective teachers’ mathematical knowledge for teaching and for supporting math teacher educators.

Mathematical Task Design
Dr. Feldman is a member of a research collaboration among six researchers from six institutions that studies the development of mathematical tasks for students and teachers and uses this knowledge to create high-level tasks for courses for prospective and practicing elementary teachers. The group has developed a guiding framework for modifying tasks from elementary mathematics curricula to create authentic and cognitively demanding tasks for math teacher educators. The group has applied its framework to modify a fifth-grade fraction comparisons task for use with prospective elementary teachers.

Elementary Number Theory
Dr. Feldman has conducted research on prospective elementary teachers’ developing mathematical knowledge of elementary number theory. Specifically, his work has resulted in rich descriptions of the ways in which prospective elementary teachers’ understanding of prime factorization and divisibility concepts change. Currently, Dr. Feldman is developing a hypothetical learning trajectory to help describe teachers’ learning of these concepts.

Biographical Sketch
Ziv Feldman, EdD, is a Clinical Assistant Professor of Mathematics Education at Boston University’s School of Education. He is a member of the National Council of Teachers of Mathematics (NCTM), the Association of Mathematics Teacher Educators (AMTE), and the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA). Publications related to this work can be solicited directly from Dr. Feldman at zfeld@bu.edu.