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The status of proving among US secondary mathematics teachers.

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Summary: This report examines teachers' self-espoused attitudes and beliefs on proving in the secondary mathematics classroom. Conclusions were based on a questionnaire of 78 US mathematics teachers who had completed at least 2 years of teaching mathematics at the secondary level. While these teachers placed importance on proving as a general mathematical skill, when they discuss their own classrooms, procedural skill consistently surpasses proof-related activities in importance for a majority of high school teachers. Furthermore, teachers labeling their own past experiences in proving as causing anxiety are predictably more likely to put less value on proving. Interestingly, the quantity of past college mathematics courses is a reverse predictor indicating that further study should consider how students' perceptions of proving change as they pass through a mathematics major.

Classification: C29 E50 D30

Keywords: justification; proofs; secondary mathematics teachers; teacher beliefs; teacher preparation

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