Perceived Outcomes of STEM Faculty Involvement on Teachers, Students, and Faculty

(X's denote observed changes in eight different case studies involving STEM faculty in MSP projects: comprehensive projects implement change in mathematics and science education across the K-12 continuum, target projects improve K-12 student achievement in a narrower grade range or disciplinary focus in math/science, and institute projects focus on improving middle and high school mathematics and science through the development of school-based intellectual leaders and master teachers)

Outcome	P1 (C)	P2 (T)	P3 (T)	P4 (T)	P5 (T)	P6 (T)	P7 (I)	P8 (I)
Improvement of K–12 teachers								
Content knowledge	X	X	X	X	X	X	X	X
Pedagogical skills	X	X	X	X	X	X	X	X
Confidence	X	X					X	X
Improvement of K–12 students								
Achievement		NV	X	NV	NV	X	NV	NV
Engagement	X	NV		NV	NV		NV	NV
Improvement of STEM faculty								
Understanding of K–12 perspectives	X	X	X	X	X	X	X	X
Pedagogical skills	X	X	X	X	X	X	X	
Collaboration	X	X		X	X	X		
Research			X	X	X	X	X	

NV = not available, C = Comprehensive, T = Targeted, I = Institute.

SOURCE: Case studies.

Figure 1.

(Taken from: Effect of STEM Faculty Engagement in MSP--A Longitudinal Perspective: A Year 4 RETA Report. Prepared by Westat, May 2008, for the National Science Foundation.)