



The B-SAFE Study: What did we find?

Safety Climate Improved!

www.neu.edu/b-safe

Program overview:

- B-SAFE, a safety communication and recognition program, facilitates communication between workers and management of all levels on hazard recognition and controls, and provides the site with a free lunch and raffle when a high level of safety is achieved.



Study overview:

- Between August 2011 and December 2013, we conducted a study on eight construction sites in the Boston area to evaluate the effectiveness of the B-SAFE program.
- Four sites were intervention sites (they received the B-SAFE program and data collection) and an additional four sites served as control sites (no B-SAFE program, data collection only).

"The key ingredient of this program is that it promotes teamwork." -- site superintendent at a B-SAFE site

Results:

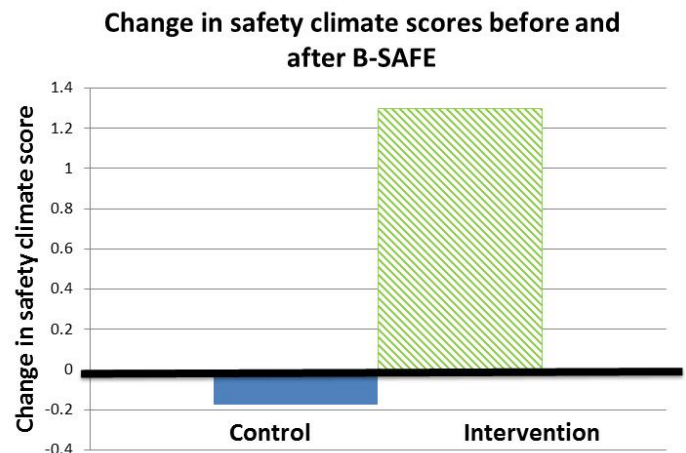
- At intervention sites, workers noted **increased levels of safety awareness, communication, and teamwork** when compared to control sites.
- The **average safety climate score at intervention sites improved 1.3 points** between start and finish of B-SAFE, compared to an average decrease of 0.18 points at control sites. Safety climate has been found to be predictive of injury rates and frequencies in other studies and is a metric used as a proxy for injury outcomes.

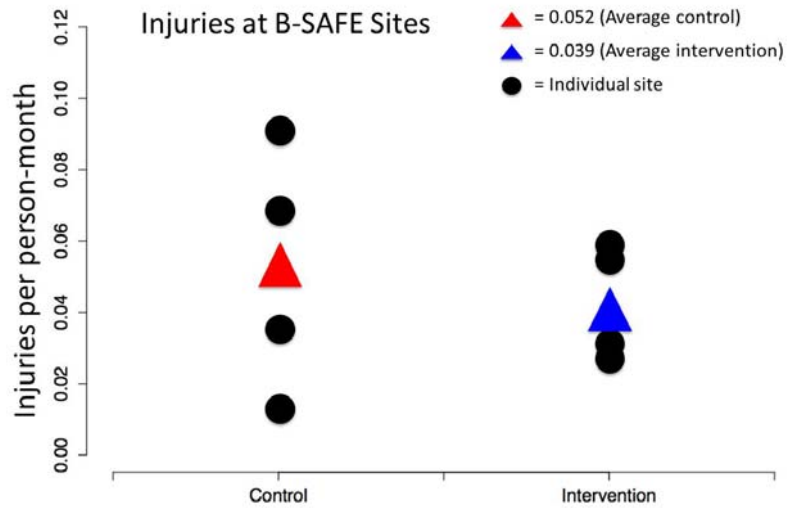
"It [B-SAFE] created common ground between all of the trades." -- worker at a B-SAFE site

- The difference we observed is **statistically significant** and takes into account sophisticated statistical modeling that addresses variation between sites and individual workers.

- **Injury rates** were calculated as the number of self-reported injuries per person per month. There were, on average 0.0386 injuries per person per month at intervention sites, which was slightly lower than the average of 0.0517 at control sites.

"It was helpful to see both good and bad observations. The chart was very helpful – odd scores stood out. You think you're working safely and then you see a low score, and you want to know why." – worker at a B-SAFE site





Estimated cost of running a the B-SAFE program on worksite for five months			
Item	Cost per item	Number of items per site	Total
Banner	\$50.00	1	\$50
Posters	\$35.00	3	\$105
Stickers	\$1.50	100	\$150
Flyers	\$0.50	100	\$50
Lunches	\$10	225 (75 workers x 3 lunches)	\$2,250
High value item (gas card, parking pass)	\$150	3	\$450
Running of the B-SAFE program	Depends on site	20 hours (1 hour per week, which includes a ½ hour to calculate scores and a ½ hour to distribute reports and post scores, over the course of 5 months)	20 hours x employee hourly rate of \$100 = \$2,000
Total			\$5,055

Notes: This cost estimate relies on the following assumptions:

1. The site has a health and safety program that includes frequent safety inspections and entering data into the Predictive Solutions database.
2. The intervention is run on a worksite for five months.
3. The site surpasses the safety performance threshold three out of five months.
4. There are 75 workers on the site during recognition lunches.

"[B-SAFE] increased the level of awareness around safety conditions on-site (...) Instead of cutting corners, we'd do it right." -- worker at a B-SAFE site

In summary, B-SAFE led to many positive changes, including an improvement in safety climate, awareness, teambuilding, and communication.

For more information, on B-SAFE, see www.neu.edu/b-safe or contact us at j.dennerlein@neu.edu or emily.sparer@mail.harvard.edu.

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"We've never gotten as much feedback and information as we did with this program." -- worker at a B-SAFE site