This paper presents a compilation and empirical survey-based evaluation of the metrics most commonly used by program managers during product development management. This work is part of a bigger project of MIT, PMI and INCOSE. Three methodological procedures were applied: systematic literature review, focus-group discussions, and survey. The survey results indicate the metrics considered to be the most and least useful for managing lean engineering programs, and reveals a shift of interest towards qualitative metrics, especially the ones that address the achievement of stakeholder values, and the absence of useful metrics regarding the lean principles People and Pull.