

Applying Lean Six Sigma for Performance Improvement in Academic Advising

M. Rezaeiahari, R. Alkhawaldeh, X. Shan, M.T. Khasawneh, and K. Srihari

Department of Systems Science and Industrial Engineering,
State University of New York at Binghamton,
Binghamton, NY, USA

Corresponding author's Email: mrezaei1@binghamton.edu

Author Note: Mandana Rezaeiahari is a Ph.D. candidate in Industrial and Systems Engineering, Raghad Alkhawaldeh is a M.S. student in Industrial and Systems Engineering, Dr. Xiaojun (Gene) Shan is a Research Scientist, Dr. Mohammad T. Khasawneh is a Professor and Chair in the Department of Systems Science and Industrial Engineering, Dr. Krishnaswami Srihari is the Dean of Thomas J. Watson School of Engineering and Applied Science, at the State University of New York at Binghamton.

Abstract: Academic advising provides critical supports for students to have successful academic experience. On the other hand, academic advising is a complex and multifaceted process to satisfy students' diverse needs. This research applies continuous performance improvement techniques to evaluate the effectiveness of an academic advising office at the undergraduate level at a U.S. university with an annual average enrollment of approximately 8,000 students. The objective of this study is fourfold: (1) to analyze the advising office, (2) to identify operational bottlenecks, (3) to provide recommendations and streamline advising processes, and (4) to develop a comprehensive process improvement strategy. Recommendations are provided based on a DMAIC-based framework. To limit student waiting time to 20 or 10 minutes, 13 or 16 advisers are required during regular time periods, and 16 or 18 advisers are needed during the pre-registration time period, respectively, given a threefold increase in demand.

Keywords: Academic Advising, Lean, Six Sigma, DMAIC, Continuous Performance Improvement, Simulation, Staffing Levels