

March 9, 2016

Dr. Joseph J. Pignatiello, Jr. Professor and Head Department of Operational Sciences Air Force Institute of Technology, AFIT/ENS WPAFB, OH 45433-7765

Dear Dr. Pignatiello:

I am delighted to provide you an evaluation of Dr. Kenneth L. Schultz, who is being considered tenure in the Department of Operational Sciences at the Air Force Institute of Technology. While I interacted with Dr. Schultz at conferences over the years, I remember becoming better acquainted with him during our conversations at the First Annual Conference of Behavioral Research in Operations and Supply Chain Management that was hosted at Penn State. Of course, for years prior to that, I was aware and deeply impressed by Dr. Schultz's groundbreaking dissertation research. It imparted to our profession the importance of human behaviors in operations management designs and stimulated its widespread development in our field. It is no wonder that Dr. Schultz is considered to be a pioneer in behavioral operations management. He has steadfastly fostered and supported outstanding research in this area. More recently, I have had the opportunity to work directly with Dr. Schultz. I valued his expertise so much, that in 2013, I asked him to serve as an external member of the now Dr. Jill Watson's dissertation committee. Jill is currently an Acquisition Program Manager at CIV TRANSCOM TCAQ (US); and prior to that, she was a Manpower & Personnel Program Analyst at the Pentagon. Given her work experience, Jill identified the harm in supply disruptions due to counterfeit parts of government sourced military products. And, in turn, Jill directed her dissertation research to better understand factors that could be used in mitigating these risks for our military. Jill's research benefited enormously from Dr. Schultz's deep behavioral science expertise. I found him to be an amazing colleague during this entire process. I anticipate that several co-authored papers with Dr. Schultz will emanate from Jill's dissertation. Most importantly, given Dr. Schultz's distinctive contributions to our profession related to the development of a new field of Behavioral Operations, I recommend him without reservations for tenure. It is rare to have a faculty member with such stature and visibility as Dr. Schultz in a school. This letter is intentionally brief, as I consider Dr. Shultz to be an eminent scholar, who is most deserving of tenure at AFIT.

My review of his academic record indicates that Dr. Schultz has clearly surpassed the bar for tenure at peer schools. I, along with many of our colleagues, view him to be a thought leader in behavioral operations; and he is widely recognized for his scholarly contributions in establishing



the subarea. Dr. Schultz's resume reflects the scale and scope of the requisite level of academic scholarship and service for tenure.

As indicated earlier, Dr. Schultz's research and scholarship has been on my radar screen for many years, and I have read many of his papers, including those you sent me. While I have recommended others for tenure with more publications, few have had the Dr. Schultz's quality. It is evident that Dr. Schultz aims high. In fact, I personally have never seen a faculty up for tenure with solely "A" publications; and he has 11 in the most prestigious journals in our field, which exceeds the total number of papers from many faculty awarded tenure at peer schools. He has four in Management Science (ranked journals in the Financial Times and Business Week); three in Journal of Operations Management (ranked in Financial Times); two in Production and Operations Management (POM) (ranked in Financial Times and Business Week); one in Manufacturing and Service Operations Management (MSOM); and one in Interfaces. I am very familiar with his published papers since I have introduced many of them in my doctoral seminars at UNC, ASU and Clemson. Prior to Dr. Schultz's early research, our discipline was predominantly focused on mathematical problems of narrow scope and tended to ignore the role of humans in operational processes. Increasingly, a number of leaders in our field strongly believe, as I, that academics should reduce the gap between theory and practice. One reason often cited for this gap has been the paucity of research that adequately considers human behavior. Dr. Schultz's seminal works, Modeling and Worker Motivation in JIT Production Systems (1998), followed by "The Effects of Low Inventory on Development of Productivity Norms, and followed by Management of Worksharing Systems" and "Overcoming the Dark Side of Worker Flexibility," collectively, sparked the imagination of our field through the introduction of behavioral experimentation. As with any paradigm shift in a discipline, the road to change is arduous and long. Dr. Shultz has steadfastly continued to forge the path forward, as exemplified in three important papers, namely, "Behavioral Operations Management: Assessing Recent Findings and Revisiting Old Assumptions," Bodies of Knowledge for Behavioral Operations Management," and "Behavioral Operations, the State of the Field."

I anticipate that Dr. Schultz's research area will continue to be influential in the future. He has a strong pipeline and continues to aim at the highest level journals. He has 8 papers in various stages under review, of which three target *Management Science*; and two, *Production and Operations Management*. To provide context, I might add as former Department Editor for *Management Science*, Deputy Editor in Chief for *MSOM*, and currently, Department Editor for *Production and Operations Management*, the competition for acceptance is much more difficult than ever; and in turn, the acceptance rates are substantially lower than even five years ago. I have reviewed the working paper in the packet you sent me, "The Influence of Load on Service Times," and find the paper very insightful. It introduces the notion of load on service times—a topic in which the underlying operational and behavioral issues, taken together, are not well-understood. I anticipate that this paper will ultimately make its way to publication; and due to its substantive contributions will be quite impactful. Attesting to the overall managerial importance of Dr. Schultz's work is the degree of his role in Air Force funded research; and he was named an AFIT Faculty Research Fellow in 2014.

While I am unfamiliar with his teaching rating and cannot comment directly on this aspect of his portfolio, I did notice several signals of quality in his resume. First the number and range of topics taught is quite extensive since graduation, and far exceeds a typical untenured professor, as does the number of graduate students that he advised, especially since joining AFIT in 2011. Second, I saw that Dr. Schultz has received several teaching awards since his doctoral degree, which bodes well for his classroom performance. Finally, I have observed first-hand many of his presentations at conferences and elsewhere; and they were always clear and well received.

Dr. Shultz has provided significant service to our profession, which is well beyond the level typical of an untenured faculty. He was influential in the establishment of Behavioral Operations Section of INFORMS and the College of Behavioral Operations, Production and Operations Management Society (POMS). Our field has 4 special journal issues dedicated to behavioral operations; and Dr. Schultz has been an editor of two of them (*JOM* 2006 and *JOM* 2013). Dr. Schultz serves as Editor, *Behavioral Operations Newsletter*; and in *POMS Chronicle*, he is Editor of the Behavioral Operations Management section. He has helps organize very successful Annual Summer Behavioral Operations Conferences that both enhance the rigor of scholarly research in our field and disseminate early findings; and also plays an active role in professional conferences and as an invited speaker.

In summary, I would view Dr. Schultz's impact on advancing scholarly research that links operations management to assessments of human behavior and decision making to be very high. Dr. Schultz has the appropriate portfolio of scholarly endeavors for tenure at AFIT. I am confident that he will continue to make significant contributions to your School; and a tenured would ratify the high esteem in which his academic colleagues hold him. Tenure for Dr. Schultz with the rank of tenured Associate Professor is appropriate at Clemson, and also at my former institutions, including, W. P. Carey School of Business at Arizona State University and Kenan-Flagler Business School of University of North Carolina--Chapel Hill). In my view, your School is exceedingly fortunate to have Dr. Kenneth Schultz on its faculty. Dr. Schultz has been recognized as an academic leader in behavioral operations and is outstanding colleague; he is actively contributing substantively to the profession and practice. For all of these reasons, his record more than qualifies for tenure. I sincerely hope that my comments are helpful in your tenure evaluation of Dr. Schultz. If you have any further questions, please do not hesitate to contact me.

Sincerely yours,

Aleda Roth

Aleda V. Roth

Burlington Industries Distinguished Professor

in Supply Chain Management