

**COMBINED NOTES FROM
BOB MCKERSIE & GEORGE ROTH
RE: INTERVIEW WITH
STEVE GRAVES
Sloan Oral History Series
Conducted May 6, 2013**

Note: these notes are a compendium of Bob McKersie and George Roth's notes written when we realized that the audio recording of the interview failed for technical reason. This constitutes the only record of the interview with Steve Graves.

Background: Steve came to the interview straight from ESD Engineering Council, where he is temporarily in the role of Interim Director. He's been involved with ESD for some time, most notably because ESD is very much connected with the Leaders for Manufacturing program, where Steve was the Sloan co-director for about 7 years. He has been involved with LFM, now LGO, from its inception.

Interview Notes:

Steve Graves did his undergraduate studies at Dartmouth College in a 5-year, combined program between majoring in math and at the same time receiving an MBA from Tuck Business School.

Steve became quite interested in operations research/operations management, and when one of his faculty members (Lee Schwarz) from the MBA program at Tuck moved to the University of Rochester, Steve decided to head that way and study for his Ph.D.

When he completed his degree he interviewed at several schools. He was a candidate at the Sloan School, and remembers the job talk he gave at which only Arnolde Hax and John Little were present. He gave this talk in a conference room by the Dean's office. At four o'clock there was a knock at the door and it was Bill Pounds saying (something to the effect), "Seminar over, we have Personnel Committee here."

Steve accepted MIT's offer and came to the School in 1977 at a salary of \$18,000. He remembers how the salary was determined. The initial offer was \$17,000, and rather than going into a bargaining mode, he mentioned to Arnolde that he had offers from several other institutions at \$18,000. Arnolde said he would see what he could do, and the School (Abe Siegel specifically) came back and matched the offer, and Steve came as an Asst. Prof.

The Management Science Group in the School held a strategic planning session at Talbot House in Vermont soon after Steve arrived, and he enjoyed connecting with other faculty members and their research interests in the MS area.

Noteworthy in the early years was the emphasis on getting in to companies and working on practical problems, applying the tools of OR and OM. Arnaldo Hax, Harlan Meal and Alan White were very helpful in establishing contacts with firms such as Western Electric (manufacturing arm of AT&T) (a formal research grant was worked out with this company), and Kodak (where Steve went for two summers and was on the payroll working with counterparts at the company), as well as with a small operations/logistics consulting . There were subsequent research projects with IBM, and a multi-year engagement with GM research labs.

When Steve came to MIT his office was on third floor of building E-53 in a suite with Arnaldo and Gabriel. In 1982, he had been promoted and took a leave of absence for seven months. He went to Shanghai from July 1982 to January 1983 and participated in a program that was teaching operations and IT, sponsored by the Chinese First Ministry of Heavy Industry. It was an 18-month program for a select group of 28 Chinese students, and entailed about a year of classes taught in English by visiting professors followed by 6-month internships in local companies. Steve supervised students in their projects. The students worked on projects in their companies, would come back, report to him what they were doing and he would work with them on their projects. The students used these projects as the basis for their masters' theses.

Steve served as acting co-director for Leaders For Manufacturing (LFM) as part of a one-year assignment while Tom Magnanti (founder of the LFM program) was away in 1989.

In 1990, Steve joined the Dean's Office as Deputy Dean and served there for three years. He is especially proud of the fact that during this period of time, the curriculum underwent a major revision, going from a full year of required core subjects down to a one-semester core with career-focused tracks.

Upon completing his stint as Deputy Dean in 1993, he served as the Sloan faculty co-director of the LFM Program. He held that position until he became chair of the MIT faculty in 2001.

In reflecting on the accomplishments of LFM, Steve pointed out that what we call today "action learning" has been an integral part of the program from the beginning. Every LFM Fellow spends approx. 25% of the time during the two years engaged in work in the field,

namely their industry internship. The program also preceded the school in terms of making leadership a core component of its curriculum, developing a 24-month curricular program involving theory, practice and reflection.

A number of junior faculty have benefited from the opportunities provided by LFM to work with the students and the companies. This includes Steve Eppinger, Marcie Tyre, Rebecca Henderson, Charlie Fine, and Karl Ulrich (who later went to Wharton).

The makeup of the partner companies has changed, with only a few, specifically General Motors, UTC, Boeing and Johnson & Johnson (now returning to the program) remaining from the beginning. Today, LFM has hospitals, pharmaceutical companies, and retail companies as partner companies.

Bob asked Steve about the role that Sloan has with the rest of MIT, specifically, getting engineering faculty connected to thesis work. The creation of ESD has mitigated this to some degree. Various tracks have been established within ESD, and more than one-third of the LGO students get their degrees from ESD. This, of course, removes them from the disciplinary engineering departments, and this continues to be an issue.

Another role that Steve had was as the chair of the MIT faculty, which gave him an opportunity to see how the rest of MIT saw the Sloan School. His term started right after 9/11, which dominated the agenda: in the first year, how to secure the campus, yet maintain its traditional openness; in the second year, how to keep the campus calm and functioning in light of the imminent invasion of Iraq.

Historically, the perception of Sloan from across MIT is that it is “easy” at the undergraduate level and that it is where students migrated who could not do the math and the science that’s involved in engineering, or science programs. Bob mentioned that Paul Gray had said that that’s not as true today as it had been.

Steve currently is offering an undergraduate course in supply chains for developing countries, with a small number of students (approx. 8). In addition, over the years he has always done a freshman seminar. His seminar involves an introduction to OR, with efforts to tailor it to applications to their everyday life.

Steve has served as the faculty advisor to the annual Sports Analytics conference. The conference is now in its seventh year. Steve said he became involved in this subject about ten years ago. It was started back when Daryl Morey was with the Celtics had a conversation with

Dick Schmalensee about teaching this subject at MIT. When he moved to the Houston Rockets, the idea shifted instead to having a conference. Steve has been the advisor to this conference, and particularly the research part of it for many years.

We asked Steve what he was most proud of with respect to his teaching and research. In terms of his research, one of the things Steve is most proud of and interested in has been the practice-based part of looking at and solving real problems. In his teaching it is getting students to work on practical problems in industry using the tools of OR and OM. Bob asked, “Do you have a hammer that’s looking for a problem? Steve’s sense was that no, he approached problems to see what models or tools were necessary for approaching them. He would then go back and modify or improve the existing tools and methods to do a better job of solving the problems. One of the examples discussed was working with a major Internet retailer on deciding what inventory to use when a customer orders on line. Where does the product get shipped from? How do you optimize those decisions across the whole retailer’s system?

Steve said that he was very proud of being at MIT. The LFM program has been important, his time as Deputy Dean, and in particular, the changes in curriculum that occurred during his time, when we revamped the core curriculum of the master’s program. We developed the tracks and changed the core from one year to a core of one semester. And he noted, there haven’t really been major changes in the curriculum since. Those kinds of changes are very difficult.

At several points Steve reflected on how different the School is today from when he came. He talked about the Faculty Club and the opportunity it offered to sit down with people from other parts of the School. The School seemed to do a better job at valuing relevance as well as rigor in our research. The emphasis on and attention to Business Week ratings have had a great impact, with more effort towards things that could lead to better ratings.

Steve feels very much a part of MIT, as does his family – both of his children have been students at MIT.