INTERVIEW WITH TOM STOKER May 7, 2014 Sloan Oral History Series

B: G:	Bob McKersie George Roth
G:	A great place to start is what brought you to MIT? How did you first hear about
MIT here.	? I guess, from economics, it's pretty straightforward. It's not like some of the other people
T:	Yes, I went to the University of Arizona, but then came to graduate school at
Harv	ard. MIT was not an unknown quantity at any of these stages.
G:	UA was your undergraduate degree in?
T:	Mathematics.
G:	And Harvard was?
T:	The Graduate School of Arts and Sciences.
G:	Does Economics go right to a PhD? Or did you get a Masters?
T:	Pretty much. I did get a Masters because I didn't quite finish my dissertation on
	and all my relatives were coming to graduation. I took the Masters so I could go to
gradı	nation. [laughs]
G:	And then finished your dissertation

T:

Tom Stoker

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T:	the following year, yes.	
G:	Are all your relatives from Arizona?	
Т:	Mostly Chicago, actually.	
B: you work wi	At Harvard, before you got here, what was your dissertation, the facuith?	lty, who did
·	I worked with Dale Jorgensen, and also with Zvi Griliches. This is into y weren't really getting along very well when I worked for both of them. vay on leave for a year, so I focused on what I was doing with Jorgensen, visor.	Literally,
B:	I knew Zvi at Chicago. I have to think – he went from Chicago to Ha	rvard?
T:	Yes.	
В:	What year was it that you were at Harvard?	
T:	I was at Harvard from 1975 to 1979.	
В:	I knew Zvi in the 1960s in Chicago.	
T: actually had	I think he must have come in the early 1970s, I can't remember exact worked with Dale in the 1968-69 range.	ly. But he
B:	And your dissertation was on?	

T: It was on consumer demand. By trade, I'm an econometrician, but this was on demand modeling, connecting up individual-level demands with aggregate or macroeconomic demand.

B: That was putting your math training to good use?

T: Yes. Econometrics is one of these fields that – it's a broad field in that you have to know a lot of economics as well as statistics and modeling. The way econometrics used to be was as much about building mathematical models for decision making and whatnot as anything else. That's changed. There is now theoretical econometrics, which is just all math, much of which will never be used in applications. We would never hire such a person to come and teach Sloan students nowadays. But in those days, the leaders in econometrics - Jerry Hausman and Dan McFadden around here, or Jim Heckman – were researchers who developed techniques to look at specific questions and were carrying out applied research as they were doing it. That was the tradition I worked in.

B: Let's go back to George's question. I'm really interested in what you were just saying, but I don't want to go too far on that yet. What was the process that got you from Harvard to here?

T: Honestly – well, I can put in a bunch of details. One thing, which I'm not ashamed of, but the fact is my dissertation wasn't quite far enough along for being in the market when I first went in. I was actually in the market two years. But I got interviews everywhere the first year, all the main economics departments. But when you're doing empirical work, you need results, and I didn't really have them. It was one of these "Isn't this a cool thing to do?", but that doesn't really sell you very well. I was in the market and I didn't get offers in the top five places, but I did get offers elsewhere. Then my advisor offered me a lot more money just to stay and work at Harvard for another year.

The second year I went around, I interviewed at four places, one of which was Sloan, and got offers from all of them. Simultaneously, my wife at the time (my ex-wife now)

got a job – she was a jewelry designer – and she got a job in Attleboro, which at least in those days was the junk jewelry capital of the world. All of that came together all at once.

I'll be honest with you, I didn't come to the Sloan School because of Sloan per se, but I knew I could do research, and I knew I could do research well around the economics department. I always thought that, when I chose. People would ask me, "Why would you stay in a business school?" Given what I was doing, to be honest, I really liked working here. But also I had the thought, you know, that when I'm 50 I'd rather be teaching executives than undergraduates. So, a career in a business school had some long term advantage to one in an economics department. I just thought it would be a more interesting place to be as time went by.

B: What year did you come to Sloan?

T: 1979. I've been here 37 years.

B: You got here before I did.

T: Yes, but you had a long career elsewhere, right?

B: Yes. I was at Chicago for 12 years, Cornell for 8, so that 20 years before I came here.

When you came, the Economics Department had people who were doing the same kind of work you were doing, right?

T: Yes. It was really a difference of teaching. In those days, that's the way they rationalized it. We got paid a little more than the people in the Department at the same level, and we had to teach more at Sloan.

B: Did you have PhD students then in Sloan?

T: We did, yes.

B: That's worth putting on the record, how this thing unfolded.

T: We had a few PhD students. We actually had a great track record with them, meaning we placed people as well statistically as even the Economics Department. But what we were able to do is admit candidates who wouldn't get through the Department's screen because they had some deficiency that we weren't worried about. Somebody might have no background in macroeconomics, and that would rule them out for admission to the Department, but we could admit them.

It was a very small program, 2-3 students a year, and it was a lot of effort. I have to remember the exact years, it was about five or six years in, but basically my senior colleagues decided that we didn't have as differentiated a product relative to the Department to justify doing the work. I think that's been a mixed decision, it hasn't been a uniformly good decision.

B: You always like to have PhD students.

T: Yes, exactly, and it keeps you fresh, keeps you honest. We have a lot of younger people now and I would think it was great if they could resurrect that. But it's beyond me.

B: You mean some of the junior faculty in your area...

T: Yes, the people who made those decisions are moving out, in some sense, and while I wouldn't push to get a PhD program back in, I certainly wouldn't fight it. I think it would be good and healthy for the place.

B: Okay, so you came in 1979. Who were the people you remember who were here, your colleagues?

T: Oh, I remember. Research-wise, I think I was talking mostly to people in the Department. I knew Paul Samuelson pretty well. And Jerry Hausman and Dan McFadden were

here at the time. The fellow who is the current Department chair was a student here then, a guy named Whitney Newey who is really good.

In the Sloan School per se, there was Franco Modigliani; there was Ed Kuh, who was terrific. Ed Kuh had a little library outside of his office on the second floor of E52, and that became my first office. They just put a wall in and I basically had a closet in there. Right next to that was Franco's office. My kids were born in 1982 and 1984, and I just remember how Franco talked about them for years about when they would come. People were really quite nice.

There was a main cadre of windowed offices for Pindyck, Schmalensee. Bob Merton and others. It took a while for me to be moved into that area.

I've talked to many people, and the early years at MIT are very special to everyone. When I remember something different, like things being difficult, the younger people are still viewing their early time as a "golden age," like I tend to view my early time here. It's a context issue, which is hard to comment on.

B: Say a little bit more about those early years. We've heard about the table in the Faculty Club. Could you flesh out how people interacted?

T: Oh, the roundtable was wonderful. It was a big round table in the Faculty Club. This was when the Faculty Club was much more for faculty, and people would go to it. In some sense, when they opened the cafeteria on the first floor, that really killed off a lot of interaction because it enabled people to keep working in their offices. Go get a sandwich, come back. Otherwise, the tradition was much more to go upstairs to this round table. Every day, there would be Lester Thurow, there would be Paul Samuelson, Bob Solow, a guy from Physics—Joel somebody, I don't remember his name—at this table. And to be honest, coming from the Sloan School was a wonderful thing because I didn't feel intimidated at all to sit there. Young people in the Economics Department were scared to death of this. They didn't want to go — I mean, I could name names, but the fact is they didn't want to go and say something stupid in front of Samuelson. But I would go all the time. That was very, very special to me, I must say.

I mentioned Samuelson because he'd actually give me "puzzles" to work on. He'd call me up on Saturday night and it was like, "How's the family?"

"Fine."

"Have you ever thought about this functional equation?" [laughs]

"Well, no, Paul," and I'd work like crazy for three days and come talk to him about it. That was special, that was really something.

B: That is so good. In terms of workshops, what was your community there? Which workshops, and how – because I think that is always a very important part of it – at least the intellectual side.

T: The primary one for me was the Harvard/MIT joint econometrics workshop. I would go occasionally to industrial organization, but econometrics was the main one that I would go to. I tried to pay attention to what was happening in Marketing. I would occasionally attend that. I must say, in terms of somebody mixing across lots of fields, I didn't attend a lot of different workshops.

B: Is that Joint workshop still going?

T: Oh yes. It sort of oscillates here one week, at Harvard the next. Again, that whole field has become really high-level mathematics, lots of Russian applied mathematicians working on methodology. I'm not as frequent an attender as I was back in the day. But yes, that's what I was doing.

And the other thing, marketing was fun in those days because it was a lot more about models and statistical work than it has become now. It's sort of fragmented in lots of different directions now.

I go fishing with Glen Urban a lot, so he and I see problems pretty much the same way in terms of what's valuable.

G: And that was somewhat unique, for a marketing department to be that quantitative and analytical...

T: Absolutely. You know, it was John Little, Glen Urban, Al Silk and John Hauser – I think they created that analytics.

B: They refer to it as Marketing Science?

T: Yes, absolutely. But there was certainly a time when people at HBS had no idea about what these guys were doing. They also had no idea why economics is in business school! [laughs]

That's all changed. But I remember once Dick Schmalensee went on leave to HBS, and he talked about how people would comment and say, "You're an economist? What are you doing at a business school?" In all honesty....

G: When you came here in 1979, I was going to ask you what you started teaching and how that ...

T: We had electives in econometrics, we still do, although they've come and gone over time. We had an elective in what's called "Industrial Organization." The course has since become Bob Pindyck's really popular course. My minor concentration in graduate school was industrial organization. I had courses from Dick Caves at Harvard, and in my first course with Dick Caves, the TA was Mike Porter. I like to tell that story, and it's true! [laughs] Mike Spence was also at Harvard at that time.

I think I was actually the first person teaching "Structure, Conduct and Performance," the famous Porter paradigm, at Sloan.

The other thing is, we taught a version of our core course to undergraduates, which was actually very valuable. Anybody coming from an economics department – and this is largely true today – hasn't been adequately trained to teach in a business school. It takes some years to get comfortable with business school teaching. That was true back then, and definitely still true now.

My first year involved teaching the required core course to the undergraduates, where I'm learning how to teach. With the undergraduates, getting them to read the newspaper is a big deal! But I was teaching MBAs only in elective courses for the first couple of years.

But then I think – was it the first or was it the second summer here? – I taught in what was called the AMP Program, which was the Accelerated Masters Program. That was really rough. McAvoy and Pindyck had established a style of teaching where they were pummeling people with material, lots and lots of material. My job with AMPs was to do that in five weeks, and here I was, wet behind the ears, and that didn't work out too well. I'll say that.

But I remember, I went on the AMP field trips. I got to know Michael Scott Morton then, walking around Manhattan. That was a really interesting experience, but not for the teaching per se. It was the first time I got to sit and listen to CEOs explain how they made decisions, which I found fascinating.

B: You've had quite a range of clientele for teaching. You mentioned undergraduates, AMP, then the regular MBAs.....

T: [interrupts] I became the "go to" guy for econ core, for a long time. That was after I got tenure. I remember when I started teaching the core, it actually went pretty well. But my previous experience had been the AMP summer disaster, so I had been a little bit concerned. But I did well in the regular MBA core course, for a couple of years. Then I switched to electives while there was a course redesign by Bob Pindyck. I returned to the core a few years after he moved into what he's still teaching now, which is a strategy course in economics.

I ran the MBA core for many years. The reason I started teaching the Sloan Fellows is because they couldn't get any other faculty to teach in the summer. Sloan Fellows economics had been covered by visitors and adjuncts.

B: Shlomo Maitel...

T: Yes, exactly.

B: Do you remember Shlomo?

T: Yes. Then he left, and they used a guy from Tufts, named Dan Richards. I got the impression that the students didn't know very much of the core material when they got to the regular semester. This manifested itself as a really bad reputation for the Sloan Fellows in regular MBA classes. My charge, when I was asked to teach the Sloan Fellows, was to do the regular MBA core course at the beginning of their program. I give them 80 or 85% of the amount of material from the regular MBA semester, but there's no fooling around. I make them do homework, give presentations, and write a full final exam. That's how I got involved with the SFs.

B: You've been doing that for quite a few summers, haven't you.

T: Yes. Nine years.

B: That's such an important role that you're playing there, Tom.

What year did you get tenure?

T: I got tenure in 1986-87. I then went to Germany and Oxford.

B: When you got tenure, then you had the sabbatical?

T: Yes, that was the normal timing.

B: Let's stay with that because that's also important in terms of marking careers. Where did you take your sabbaticals, and what's going on during the sabbaticals?

T: I'm not sure I did – I went to where people were working in economics on the technical topics that I had made my reputation on for tenure. I think that was probably not the best use of a sabbatical given the career path I would later follow. In other words, it might have

been better for me to get much more direct exposure to business. For instance, some colleagues would take a sabbatical and go to work for a startup. I didn't actually do that, but I did get to live in Europe for a year - Germany for nine months, and Oxford for three months.

B: I'm trying to remember – for a while, at the University of Chicago, Graduate School of Business where I was, they had a relationship with Louvain University in Belgium and Jacques Drez. My memory is not coming up with the name of the person who went back and forth in those years. In fact, it was an opportunity for students to spend a semester at Louvain and still have it count toward their MBA. It was one of the first overseas partnerships.

T: That's interesting. I gave some very prestigious lectures there, and the only person who knew about it at MIT was Tom Magnanti. [laughs]

B: Jacques Drez. He went back and forth. He was probably there when you were.

T: Yes, definitely.

B: Say a little bit about your research. For the lay person, give us an understanding of what kind of topics you worked on, and where you've gotten your mark in the profession.

T: Well... I've always been a utility infielder for applied work. I've done lots of different kinds of applied work. But the things that caught on early on were methodological advances. I don't see that as typically would be done in a business school context, but it's what I do.

There were two sets of things. One is I work on what are called aggregation problems, which comes into and out of vogue in economics every 10-15 years. This refers to trying to understand the difference between results you get when you study individual behavior versus what you get when you study macroeconomic-level statistics. My first application of this work was in measuring the welfare impacts of the energy price increases of the 1970's. This was

a macroeconomic phenomena, but to see what types of families were hurt the most and the least, you had to carry out a consistent analysis for individual households.

Another application I was involved in was a study of British unemployment. Average wages in the UK were going up dramatically – but so was unemployment. The real question was: were people broadly getting better because wages were getting better? Or was it the case that the low-wage people were getting thrown out of work? It was interesting because both things were happening, and we were able to quantify how that worked and understand what was causing that phenomenon.

That's sort of a boilerplate. I have done applications with many types of energy; to gasoline prices, to coal productivity, to name a couple. I've done work on global warming where we were modeling carbon emissions at a country-wide level versus the world.

The second subject area was technical work in econometrics methods. I developed various things in semiparametric and nonparametric methods, which are fancy terms for methods that incorporate flexibility in statistical modeling. I developed methods such as average derivative estimation which combined flexible methods with standard economic modeling. I carried out some applications with these methods, as well as using them in statistical consulting work.

B: Are you hooked in with any of Jake Jacoby work, who is the economist with some of that?

T: I used to sit in their meetings as they built models for the economic impact of carbon emission policies. He's still around.

B: Yes, he's heavily involved. He's emeritus, but he's still involved with the global warming project.

T: I had a lot of involvement with that center when it was run by Dan Ellerman and Dave Wood –who died, tragically. But since then I haven't really engaged with the next group of people. Not that I couldn't.

The fact is, this is not very politically correct, but I don't do a huge amount of research on my own now. I try to help junior faculty with projects. Lately I've worked with Tavneet Suri and we're studying rents in slums, but using satellite photos for various things. It's really neat stuff! I'm out there trying to make these projects happen and keep them going.

G: And satellite photos provide a way to see a change in the slums?

T: Well, we're studying rents in slums, which are interesting anyway because there's not a lot of formal government administration, but there are ways things are done. In some areas, it's gangs. One issue with studying rents is how do you control for the quality of the housing involved? Well, these are slums, so what is the quality you need? It turns out that the one thing that they actually try to replace when they have a problem is the roof over the slum apartment. And they replace it with some kind of metal.

G: Corrugated metal roofs?

T: Right. When they put that on, it's shiny, and when it ages, the shine goes away. And you can measure that. That's what we're using the satellite photos for. It's a cool, broad idea. Other work that's been done with satellites is really very coarse. For instance, others have tried to relate economic development to how many lights are on at night. Our work uses daytime images, which is novel. It's the sort of project that pops up around MIT that doesn't really happen at too many other places.

G: I know you've taught PhD students methods. I took multivariate statistics with you. You may not remember me, but I remember you!

- T: Thank you. The funny aspect of that experience is that the Math Department called me for the next five years to come and teach calculus, which I never did!! [laughs] Wow, that's great. Well, I'm glad that course...
- G: It was some time ago.
- T: I know, and it was fun. The trouble with our teaching job now is that that experience most people don't get. When we hire a junior person, we are able to get them some opportunities to teach in the Economics Department because it's good for their development to go there, for their intellect, and everything. But I'm not sure that much of that happens across MIT. Probably in Operations Research and other groups that are closer to the Engineering School, but mostly we're just in the big classes at Sloan now.
- G: Well, we've talked with others about the way the point system works, it discourages teaching small seminars that had PhD students who were trying to learn something new, and was not for the MBA population. A lot of those have just gone away.
- T: Yes, I think the point system is tricky. I'm not a fan of the point system. That view would probably get me thrown out of the economists club here... The real problem is that there are so many different types of jobs here that it's hard to decide what a comparable workload is across people. I'm not sure the point system works very well, but it's at least some way to maintain some equity.
- G: Once you have the points, it's easier to measure and manage them.
- T: Exactly. But if you want to do something new and you have trouble attracting people, the point system will kill you.

When I grew up here - I've told this to many people - it felt like a research institute with classes. I'm not sure that's the case any more, for me. I'm hoping that our junior faculty all feel exactly that way because that's what made it fun.

B: With the separation geographically this year, and even when E52 is returned, Economics will still be in a different building. Is that a factor?

T: I think it's important, yes. Most people will get exposure through the seminar system. We do have an applied micro seminar now, and it's joint with the Department as well, and most people are going to their field seminars. I do think the physical aspects matter a lot. There was no connection between the Graduate School in Arts & Sciences and the Business School when I was at Harvard. It was like "too far to walk." I think that some things must be missing, but we certainly encourage our people to keep going to department seminars as much as possible. We do have a joint faculty member now, named Mike Whinston, who spends time with us. This sort of relationship is tricky because it's possible for joint faculty to neglect some of the groups they are affiliated with.

B: You had one sabbatical, which you mentioned. Have you had other sabbaticals since?

T: Yes, but never one where I moved somewhere else with the family. My kids were really young, 2 and 4, then. And since then, the next time, my kids were in junior high and high school, so it gets harder to move. I think all the other sabbaticals I've had were around here. I did writing projects and various business consulting projects during them.

I'm a co-founder of a company now, for about a year. That's an interesting experience, which I'm enjoying, but I never did anything like that when I was 40, as opposed to now when I'm 61.

B: Tell us a little bit about that.

T: Okay. Consulting, in economics, through my timeframe, went from what was a fairly small activity to one which is a major part of the time commitment for some colleagues. Most guys who do it now, and most of those who survive the ups and downs of the business

cycle, do litigation consulting. They consult on legal cases. I've never liked that, have never really done it, and never really wanted to. That's got a feature of combat to it that I don't like.

The kind of consulting I did do, started with some years of proprietary consulting work. I worked for a defense contractor on various military strategic-type problems. This was a company started by Mike Athans, a EE professor - I'm not sure if he's alive any more. I can't really tell you too much about this work, but I did that for some years.

I got involved in various consulting projects where we'd come in and help a company learn about something. Al Silk got me to work with a guy who was a graduate student at MIT, but never did a dissertation, named Steve Gaskin. I've done a lot of projects with this fellow through a company called Applied Marketing Science, which was founded by John Hauser. Small world! Basically, the projects each involved some company that had a marketing or operational problem and we'd come in and help them solve that problem. That kind of work I quite like.

Anyway, we developed some methods to do statistical work that enabled targeted marketing. I'm not sure how much to say.... There was a fad in marketing, called Hierarchical Bayesian Models, and we figured out how to get the best parts of that kind of modeling but at much faster speeds and scale. That's my contribution. I was originally sought out by Al Silk because I could read and figure out the technical papers on Hierarchical Bayesian modeling. We developed algorithms that we use in some of these consulting projects.

About 3-4 years ago, we did a project for Biogen-Idec. They made so much money by better targeting their marketing to physicians, that the manager in charge quit Biogen-Idec to create a startup company. The startup offers the same targeting services to pharmaceutical and biotech companies.

B: That's what you're involved in?

T: That's what I'm involved in now. I have no day-to-day responsibilities, but I'm still the "how do we go about modeling?" guy.

G: It involves collecting information to target your potential customers?

- T: Yes. In very simple terms, some physicians react to calls and various types of marketing, others don't. But even the managers in charge of marketing have no real idea who was reacting and who was not. If you just put your resources where you're getting more bang for your buck, the results can be huge.... That's what this is about, statistical modeling to directly improve the effectiveness of marketing. It's fun for me to oversee, but I have no day-to-day responsibilities. I'm on the phone with them every week. It's in the "everything is a pilot" stage, so who knows whether the company will become viable or not.
- G: You've contributed methodologically to what they do, but you are also privy to the running of the business and the business being successful that's what you mean?
- T: Yes. It's one thing to come in and have a set of technical skills. It takes another whole set of skills to actually figure out how to get managers to pay attention to what you are doing, and how you can help them. And there's a whole other set of skills to get a business to invest in this sort of capability. I'm getting to see that more in real terms than I ever had in my career, right now.
- B: What would explain, when you talk about marketing science, someone like John Lowell heavily involved in the OR Center, historically. Would you be involved in the OR Center?
- T: I was doing technique. I haven't been involved in the OR Center, but I was doing technique, so we are very similar to that. And right around tenure, I was giving seminars to colleagues in marketing. I don't know, there's a "turf" aspect to statistics around here, which is a little bit interesting.
- B: We don't have a department of statistics, which is another issue?

T: No, we had a Statistics Group, but it basically didn't grow, and in fact atrophied, to the point where it was absorbed by Operations Research. I was arguing that applied economics could take over statistics teaching, which my economist colleagues would want to do. But that's not the way the dean saw it, so statistics got absorbed into OR.

Another thing is that OR has a good mix between PhD courses and students, and MBA types of courses, in-house. For economists in Sloan, our doctoral teaching is really extra, and is really only funded for our junior faculty. Some colleagues still teach courses in the department occasionally.

B: When did you take on the chairmanship of the Sloan Fellows?

T: That's just this year. It was Joe Weber up until recently, when he became the Faculty Director for the Malaysian business school. That's a whole other set of tasks. I just came on now. I'm already arguing for a different schedule! [laughs] I've had no impact, at this point.

The thing I should say is I view myself as being around for the transition from Sloan having regular undergraduate and graduate classes to what we are now, which is a mainline business school. And the transition was entertaining, right? You had Bill Pounds and Abe Siegel. But then Lester, who was a totally different experience, as you probably remember. Then we had Glen Urban, the best salesman on earth, but people weren't all that happy with that. And then Dick Schmalensee. The School changed dramatically. I remember when we had five or six administrators – Miriam Sherburne, Jo DiCicco – you probably remember some of these.

B: Esther Murrow....

T: Yes, yes. That was the whole business, so to speak.

B: Now we're a corporate enterprise.

G: You have all this support, you don't have to do anything any more!! Right??

T: Exactly. [laughs] That's funny. And even Abe Siegel was such an interesting character. He was the only person in the building who knew everybody's salary. If you went in to complain – I never did this, but I knew people who did, like "this person's making too much money relative... I need more." Abe would say "You don't know that. Sorry. Goodbye."

I also thought he played a really interesting organizational role because I got the following impression, even though I was a junior faculty so I didn't really know anything. That is, if you wanted to hire any new faculty member, the tough obstacle was Abe. This played the role of keeping people from fighting with each other, or making the competition more violent between faculty and between groups. It was good that Abe had this iron-fisted way about him. If he didn't want to hire a junior faculty member, he'd offer them very little money. Then, if they came, well, that's better.... [laughs] It wasn't too bad.

G: Very pragmatic! What was Abe's discipline?

B: Economics. He prided himself on his appointment in the Economics Department. He went to their meetings, and really worked on them. He made sure that John Scott came over, remember that time?

T: Sure.

B: He got an appointment in Sloan. That was Abe, presiding over good synergy between Sloan and the Economics Department.

T: He also had his quirks, too. He certainly didn't think that finance people should be paid like finance people are. He didn't think they were any better than regular economists. And people argue that's one of the reasons that Merton left the first time. Merton never took a leave, right? He never took a sabbatical or anything for the first 15 or more years he was here. He was funny. I used to have season tickets to the Bruins, and I'd come back here at 10:00 at night and

Merton would still be in his office, the only guy around. But when HBS came to him, I think — when it came down to salary and stuff like that, at the end of the negotiation it was like, "Oh, you didn't mention that it was about money," and they just offered him much more than MIT was prepared to. I was told, I don't know if this is true, that until the 1980s all full professors at MIT had pretty much the same salary across the Institute, something like that. I think business school salaries are still a bone of contention across the Institute.

B: Well, you said some helpful things about Abe. Say more about Lester, who succeeded him. You gave us a gesture, that Lester made big changes. How would you describe Lester?

T: I go way back with Lester, one of Lester's best friends in the world is a guy named Lester Taylor, who I had as a professor at the University of Arizona as an undergraduate. I met Lester Thurow when he would go on sabbatical there and go mountain climbing.

B: Yes. He was originally from Montana?

T: Yes. What Lester Taylor would say about Lester Thurow is that he's one of the most brilliant people ever at seeing problems – and one of the worst ever at creating solutions! [laughs] I think Lester was really correct that Sloan couldn't continue as a research institute with classes and survive within MIT. If we're going to have a business school at MIT, it has to be a great business school that's recognized, you know? It wasn't the case that we could continue with admitting undergraduates with little experience and compete in the main MBA markets. He saw that.

He wanted to make us competitive, he wanted to make us superior for attracting faculty. He was the first one who really lowered the teaching workload. This went down especially for new faculty. The problem from my point of view was that the older faculty had special arrangements and centers, so residual work had to get covered by faculty who were recently tenured, like me. So, I didn't feel like my workload dropped at all....

But it was the first time when colleagues could put all their teaching in one semester. That changed the place a lot. Previously, everybody was always around because they were teaching every semester, say, two courses in one semester and then one in the other semester. People just weren't around as much after the workload was lowered.

With Lester, there were broad, sweeping changes that weren't always completely thought through. I do remember being the sort of person who had to pick up extra teaching because we didn't have enough faculty resources to cover. I remember once I wanted to go on leave at Harvard and Lester said, "No, no, you just can't." I think this was right after Merton had left.

B: I think with that one, I think he actually had the president of MIT talking to the president of Harvard. Lester was outraged – we didn't just lose Merton, we lost all these other folks who were economists. You know, several of those went over. Scharfstein.

T: That was later, when Jeremy Stein left as well.

B: They were in Finance, weren't they?

T: Yes, corporate finance.

B: Yes, Lester was just outraged. And you mentioned Glen, whom you know very well.

T: Yes. I didn't know him very well when he was dean. But he was the consummate salesman. But he also oversaw the point system. I think this is Paul Asquith...

B: ...and Paul Healey, the accountants, putting in the point system.

T: But Glen, I think the workload actually got harder through Glen. The reason we need 112 points now was Glen. Do you know this story?

B: No.

T: Okay. Why would you start by requiring 112? Wouldn't a round number be more sensible? Well, the answer is because they started with 100 but at some point Glen needed to show the provost that we were more productive. He increased our productivity by 12%, raising the required point total to 112. [laughing]

Glen was much more a businessman than any of the people before him. Glen understood all sides of it. He's started many companies. Again, I remember mostly people grousing because the workload got heavier for a while, and that was probably a necessary adjustment because I think Lester was like "Okay, let's give away everything and grow so fast that nobody will notice."

B: Well, the workload for some faculty increased because he established all these research centers with companies. Stew Meyers all of a sudden had a finance center, with all the talking he had to do back to the sponsors, a lot of hand-holding.

T: Oh yes, I remember. I wasn't a consultant at this time, but I remember they wanted you to establish a lot of these connections. I went with Rebecca Henderson, during her first year, to Merck, to talk to them.

B: And Merck was a big one. We had Judy Lewent from Merck, one of the alums of the School.

T: Yes, I went down there and argued with Judy, and they ended up offering Rebecca research money for what she wanted to do. And me, they offered a consulting job. They wanted me to go testify in front of Congress that they weren't screwing old people with their pricing. At any rate, I had other things I wanted to do.

B: To stay with this story, you've seen quite a few deans, and then your colleague Dick Schmalensee.

T: [sigh] Yeah.... [laughs]

B: We sit in a building as a testament to his fund-raising.

T: Yes, he did very well. But the Applied Economics Group was strangled in those years. We didn't grow at all. It was all crisis orientation with Dick. I think Dick has the view that your close colleagues are the ones you can ignore for the longest because they are your friends and they will stay your friends after. We had multiple visitors in our required courses every year, and that was just a bad thing.

B: And they weren't hiring tenure-track faculty, and were replacing with lecturers....

T: Yes, as part-time. We would get to hire some junior faculty, but it was fits and starts. We had visitors who were award-winning teachers at other places (one from BU) teaching our core, but MBA students don't want to pay this kind of money to see a BU professor. There was one year we had two visitors out of four core professors, and the students revolted. Then we were actually able to make more offers, but we only filled two openings.

I think that what happened – the big expansion with Schmalensee, in Strategy and other areas, where in essence they started hiring economists elsewhere in the School. It just didn't come to my group. Bob Gibbons came then. He's since then joined our group, but he started out in the Strategy group.

B: I think he was more in BPS.

T: Yes, right. And Rebecca Henderson came a little earlier, but they definitely expanded, and it just continued with Scott Stern, and Pierre Azoulay. There are definitely non-economists in there, but the economics contingent is bigger than it was back when.

What else is there? Let's see.... For a lot of time, I was group head, I was area head at the same time, and ran the core. I was doing a lot of things like that. I'll be honest, also, this was when my personal life was sort of a fiasco. I was taking on too much stuff just because of personal reasons.

I view Dave Schmittlein as a real breath of fresh air. He's been here a long time now. I think MIT has always had a little problem with administrators, because people want to do research here and that's what gets rewarded. The notion of a career path of being a dean, they don't think it's something that's rewarded here. Having an outsider come in, like Dave, this is his career and he's great at it.

It also shows up with people who have tremendous trouble with the notion of retiring. Not me, it's often people who have been at MIT for the whole run, the "MIT cubed:" MIT undergraduate, MIT graduate school, MIT professor. They really have a lot of trouble transitioning away from the job here. That's a unique thing about this place. I think it's a young person's place. Dan McFadden used to say that, meaning that it's not as comfortable for a 50 year old or 60 year old, as it is for a 25 year old or a 30 year old.

I'm just rambling about this now...

B: Interesting perspectives. I think we're about done.

G: As you reflect back on your career and contributions you've made, are there any that stand out? Maybe things that you would say you are proudest of? You talk about yourself as being a "utility infielder," and I think you've really stepped up to the plate. If you were to think back about projects or things you've been involved with, responsibilities you've had, things that stand out in terms of being proud of them and what you've accomplished....?

T: I like working with the junior faculty, actually. I think that's the most important thing to me; creating an atmosphere where junior faculty feel comfortable and can really excel, and where being a good citizen is rewarded. In some sense, I view myself as someone who doesn't fit at Sloan quite right. I'm not a mainline business school professor in any way, shape, or form. But I was able to have great success here, especially early on. I want that to be the

standard for young faculty. But my view of research is that if it was just following an easy set of instructions, it wouldn't be the thing that's so important to us. I figure that in some sense I improve Sloan by trying to help junior faculty succeed as much as possible. That is the way I see my role now. And it puts you in a different place, makes fairness and equity a whole lot more important than for somebody who thinks that pure intellectual skill and power is all that counts.

Then also, I'm probably too co-dependent about this, but during the years where I was running the core, being group head and area head, endow you with a little bit of "watch the store" mentality. It gets valued by some and not by others, but I have to work with all these people. That's what I like about it. It's an amazing place for how smart people are.

I used to love going to Chicago, by the way. That was my other favorite, but that has a different feel to it. It's almost like combat, in some ways there.

B: They pride themselves on making people feel on the defensive, or unsettled....

T: Yeah, they are eating nails for breakfast. On the other hand, they cared, and it was intensely interesting.

B: And supportive at the same time. I have to tell the story about Milton Friedman in that regard. There the business school and Economics department were as close as the two here. I can remember going and hearing a presentation by some visitor to one of the workshops, and there was a dinner afterwards at the Quadrangle Club. The visitor was there and Milton was there, and Milton was asking all sorts of questions, really pressing. And you could see the guy thought he'd done enough and now he's giving the workshop over dinner. He's trying to figure out what to say. At the end of the dinner, Milton says, "I really thought this was great. I really enjoyed being here."

And as the guy walked out, he said, "Ohh, shit!" He was SO flustered. He didn't understand that Milton, it was at this level, and we had really liked the guy. But the guy couldn't figure that out.

T: I have a story like that, actually. I told you, I was on the job market for two years. I went to Chicago the first year and didn't get an offer. But it was one of these things where I didn't have the results I needed, but I had the story, in some sense. This was my last of several seminars, and I came from Texas A&M. And the airline lost all of my handouts, it was just one of these complete disasters. I went and gave my seminar, and I made mistakes, and it didn't work out. So that's that.

When I went back there three years later, I was scheduled for a seminar and I was going to arrive the day before, so I said, "If you could just give me an office to sit in, that would be great, I don't need to do anything." I get there, and I get rushed into Sherwood Rosen's office, and he goes, "I have to run to a plane and I really feel sorry that I'm going to miss your seminar. I was looking through your thesis." He's got my thesis paper, he's at exactly the place where I made the mistake in the seminar, and he asks "could you explain this to me?" I was a new PhD, and three years later he wants clarification – these are serious people. That was exactly my impression. Then I had appointments all day long, and it was like that everywhere at Chicago.

B: I haven't thought about Sherwood Rosen.... I don't think he's alive, is he?

T: I think he's deceased.

B: Thank you so much Tom, this is great.

END OF INTERVIEW