

**HOWARD BAKER**

Marist College

Poughkeepsie, NY

Transcribed by Ann Sandri

For the Marist College Archives and Special Collections

**Baker, Howard**

Transcript – Baker, Howard

**Interviewee:** Howard Baker

**Interviewer:** Gus Nolan

**Interview Date:** August 17, 2017

**Location:** Marist Archives and Special Collections

**Topic:** Marist College History

**Subject Headings:** Baker, Howard

Marist College (Poughkeepsie, NY)

Marist College – Social Aspects

IBM – United States

IBM – (Poughkeepsie, NY)

IBM – Marist – Joint Study

**Summary:** Howard reflects on his early education and positions leading up to his position with IBM at Marist in the Joint Study program. This includes: his unique experiences, opinions and comments on the computer science program, Marist College both past and present and how it has changed over the years.

Gus Nolan (00:05):

Today is Thursday, the 17th of August. And we have the opportunity of interviewing Howard Baker. A unique opportunity because we're dealing with an individual coming from industry, not just any industry but IBM and has worked on Marist's campus for a number of years. Right. Good Morning Howard.

Howard Baker (00:28):

Good morning. How are you?

Gus Nolan (00:29):

Good. Howard this interview is being done, as perhaps Ann has told you, for the Marist Archives and is one of the number where somewhere in the late eighties I guess counting trying to get a record of how Marist got to where it is. You are speaking from a unique standpoint of how we've been a long time with IBM and then actually being on campus. And so we're going to see Marist through the eyes of one coming without experience. But first I like if it's possible to get kind of a thumbnail review of something of yourself, your background, where you grew up, school. Okay. So where did you start? Childhood years? Where did you grow up?

Howard Baker (01:20):

I grew up right across the river in the town of Marlboro. I attended the Marlboro School district. From there I went to Cornell University. I was a biology major there. I did some graduate work at the University of Rhode Island and then moved into environmental consulting work and did a lot of work on the Hudson River with a company called Texas Instruments. Got into a lot of report writing and data analysis, got into programming, decided I might want to look into computer science as a major. So I went back to school while I was working at Texas Instruments and got a master's degree in computer science at Union College, which had an extension office here in Poughkeepsie. And in the early eighties, applied for a job at IBM and was lucky enough to get one here in Poughkeepsie working on operating system development for the mainframe. And that was in 1982 and did between Poughkeepsie and Kingston labs, did a lot of operating system development testing.

Gus Nolan (02:39):

I had to be already.

Howard Baker (02:40):

All that kind of stuff. Okay.

Gus Nolan (02:41):

Wonderful. Let's go back a little bit and fill in some of those years. Growing up, were there particular interests? Were you into sports or clubs or?

Howard Baker (02:50):

Yeah, big sports, football, basketball, track, you know. Okay. Yes. And, and clubs I was under, I didn't do any of that kind of stuff, no, no.

Gus Nolan (03:05):

Okay. No drama, singing?

Howard Baker (03:06):

I played in the band. I played saxophone. Yeah.

Gus Nolan (03:11):

You still do it?

Howard Baker (03:13):

No, no, no. I was not a premier musician, but I, you know, so by the time I was a senior, I think they probably asked me to leave the band, but I was more, it was all, it was sports and sports and sports.

Gus Nolan (03:31):

Right. Through your college years, did you have opportunities to be involved in some kind of work, whether were you, uh, summer jobs or?

Howard Baker (03:40):

Well, yeah, I mean, my summer jobs were always, well, early on my college career, you know, I grew up in Marlboro, mostly I was a farm boy. I worked for my uncle on his farm early on in my college years. And then, later on did some work with the as a park attendant down in the Bear Mountain State Park, those parks down there. And I did work through college, I worked for a very great person. His name is Gene Likens, who had an association with Marist as well, but he was my limnology professor and he did a lot of work on acid rain and he was one of the pioneers in the research on acid rain. And I had a job with him my senior year. I used to go to the lab several times a week. And my job was to wash all of the equipment that they used triple wash it, so it was absolutely purely clean so they could do a chemical analysis on the acid rain. So that was a great opportunity. I don't know if you've know him, but he was also the director of the Cary Institute.

Gus Nolan (04:59):

Oh, yeah, Millbrook. Yeah, yeah.

Howard Baker (05:04):

He's still alive. Good guy.

Gus Nolan (05:06):

You're kind of ahead of your time with this environmental interest. Was at an outgrowth of Cornell and biology?

Howard Baker (05:13):

Yeah, that was totally Cornell, biology, growing up on a farm, being in the Hudson River and yeah, then working that work that we did on the river was all related to, uh, the power plants on the Hudson River, Con Edison.

Gus Nolan (05:30):

Texaco had one, later.

Howard Baker (05:32):

Well it was mostly mostly the power plants, mostly kind of the big one was Indian point. And there were in, the other thing is they were thinking of a Con Ed was thinking of building a pump storage plant in Cornwall. And so we had to do an environmental assessment of that and that turns out to be an area where the striped bass, it's a spawning ground for striped bass. So it was, yeah, this was the early seventies. So the environmental movement was really getting going then.

Gus Nolan (06:04):

How do you explain this switch from this environmental stuff into the technology of IBM and computers and so on?

Howard Baker (06:15):

Well, as I started in that a career or a job and with Texas Instruments, I was a field biologist. So I was going out on the river every day. I was in my twenties, very young and you know, nothing bothered me. So I were, we would sample from the Albany all the way down to the George Washington bridge was a really large study. So I did that for several years. And then as you want it to progress in your career, you had to get more into the more technical report writing data analysis type of stuff. And as you got into the data analysis then that required computers. Got to use the language called SAS, which is a very powerful statistical analysis package. So started to get into that and realize they needed to get more education in that area. So that's when I went back while I was working at Texas Instruments to union college and took courses at night. They had an extension office on over and Hooker Avenue by the where the Quaker church.

Gus Nolan (07:24):

My experience with IBM is much more simple. I was a student here in the 50's, and actually 49 and we went to the south toward IBM and we saw electrical typewriters, running in a room just being tested. Yes. I mean we had not even come into sorting cards yet, you know, with needles and that earlier operation. And so that was my first touch with them. And since then I went on sabbatical in the 1990s and of course IBM was different. Some of the people that are later became professors here. Jim Fayhey was one sure. In charge of public relations I guess, and grants and things of that.

Howard Baker (08:17):

The other part of what drove me towards computer science was I knew that this study that we were doing on Hudson River was not going to last forever. And Texas instruments actually did get out of that environmental consulting business. And I did work for another small consulting firm across the river for awhile. But, I it was work that was from year to year based on grants and contracts and so forth. And I was starting to raise a young family and needed a little more stability in that. That was also a factor.

Gus Nolan (08:53):

Yeah. Who is the alleged polluter? Was it General Electric it was a great concern about contamination of the rather from a industry.

Howard Baker (09:04):

Yeah, it was, it was GE and the PCBs That was not an area we weren't, that study was going on that was more driven by the Department of Environmental Conservation. Our studies were driven by mostly EPA requirements you know.

Gus Nolan (09:21):

All right. 1959, 1960 a unique thing happens IBM becomes, begins to come to Marist. We opened up program in the summer, evening classes, for IBM and I dunno, I guess that was pretty well along when you came along

Howard Baker (09:42):

It was, it was, yeah. And I think when I came along in the 80's, I think they were partnering with Syracuse University. Possibly. Right through our, so yeah, it was either, it was Union college, had a program Marist had a program. I just had, I don't know why I chose Union College, but I did. But yeah there were a lot of people that also went to the Marist program here in the evenings

Gus Nolan (10:04):

And Syracuse is here as well and the professors were here to in spite of that Yeah. For that a time. Then we had a unique thing in the summer. There was a time when the IBM plant used to close for two weeks and they did a cleaning and.

Howard Baker (10:22):

Regen or something like that. Yeah. You reset the manufacturing line or something. I wasn't familiar with that, but yeah.

Gus Nolan (10:29):

And it happened that Marist decided that we were going to close for two weeks too because all the students worked for IBM. Yeah. And so we were very amenable to that.

Howard Baker (10:40):

What, what area did you teach?

Gus Nolan (10:42):

I was in communications. Yeah. And I exchange with Jim. Fahey, I would go to IBM and he would come here. I would go to IBM to look around to see how industry operated. Always been observant, you know, on the scene. Right. And he was actually taking my class. He was going to teach some unique courses on public relations of which he knew a lot more about than I did because he was always theoretical and he would use practical examples of how this works and the impact it has. So he was a real asset too. And I had a real opportunity to go to IBM and see the operation and what industry looks like and how it does work. Sure. I was amazed by the security. I mean you had to have your badge and IBM to get in and you didn't hold the door for somebody unless you saw their badge. 10 years later I go to Texaco and it's entirely different. It's a campus. It's, you know, it was, it was supposed to be a college team. Like, you know, they had used the word campus and they use the word, we have buildings where it just had numbers.

Howard Baker (11:47):

We use the word lab mostly.

Gus Nolan (11:51):

Also women came to IBM, from my IBM to Marist for the first time. And that was the introduction though of women coming to Marist and that was early fifties. Well late 50's.

Howard Baker (12:04):

You know, what her name was?

Gus Nolan (12:06):

No, there's a picture of, well, somewhere in some office here there's a picture of a woman and her kids are outside looking at her in her college gown. You know, this is mom graduating. You know, it's funny about historical things. The name escapes me.

Gus Nolan (12:26):

The idea of you coming to IBM though at the beginning. What way did you move along the line? Did you start, on the mainframe. You weren't putting it together on sure.

Howard Baker (12:46):

No, I was on the software side, so operating system development. So I, there was a operating system team, development team in Poughkeepsie that worked on an operating system called virtual machine VM. And you know, you hear about virtual stuff now, and this was, this was I think invented in the late sixties, and it was sort of, there were two major operating systems that ran the mainframe, one was called, MVS, multiple virtual storage. It's now called ZLS. And then there was another operating system called VM. VM was sort of the poor stepchild. MVS was ran and still does, runs the major mainframes in the world and, but VM is a way of sort of simulating hardware through software. That's the virtual part of it. So you could run this virtual machine operating system and then run multiple copies of operating systems on top of it. And that was, it was usually mainly uses a testing, vehicle so he could test these MVS, the MVS operating system. Today what it's used for is now in Marist, has been a leader in this, is running Linux, Linux operating system on VM. So you can have multiple versions of Linux running on the same hardware platform using this virtual machine layer of operating system to simulate the hardware. So that's, it was, no, we were not then had nothing to do with the putting the hardware together. We were the software guys that tried to make the hardware work well.

Gus Nolan (14:40):

You did that in Poughkeepsie?

Howard Baker (14:41):

When I first started in 1982, I did in Poughkeepsie and then at the time they were building a new lab up in Kingston.

Gus Nolan (14:49):

Oh, I was gonna to say I went to Kingston for another sabbatical. Right. And that was the testing. They would run the programs after they made the frames, I shoot them up. Right.

Howard Baker (14:57):

The hardware was shipped up there, exactly.

Gus Nolan (14:59):

They would go into the different buyers who was going to get it and the bank when a different program from a Ford, you know.

Howard Baker (15:07):

So yes. And a year later after I was hired, we moved to a brand new facility, a building, O-25 in Kingston. And it was a wonderful, everybody had their own office and we had a full second floor of the building dedicated to testing.

Gus Nolan (15:22):

Were you ever working in Kingston? Did you go there?

Howard Baker (15:24):

I did, yeah.

Gus Nolan (15:26):

For those years.

Howard Baker (15:26):

I did a transfer, you know, really all transferred to Kingston on, of course I lived across the river, so itno problem. So yeah, I worked there from 1983 to 1994-95 when they closed it down.

Gus Nolan (15:40):

Oh, okay. Uh, I might've seen you in the cafeteria or something.

Howard Baker (15:44):

Yeah, it was great, it was, Kingston was great place.

Gus Nolan (15:49):

Okay. Very important point now for Marist and for my own understanding of it, what is the genesis of the work study? The Marist IBM joint study, how did that develop?

Howard Baker (16:04):

Well, I don't, I wasn't involved in the very beginning, but I believe the main person that drove that, or really obviously it was Dr. Murray on the Marist side and Jim Cannavino on the IBM he was a, I don't know how the genesis of how they decided this would be a good thing to do, but I think one of the things had to do with, we have a mainframe, and we might want to develop the market for colleges. So let's, let's bring it to a college right up the road and see how we can adapt it to the needs of the college. A person that would know more intimate details about that aside from Dr. Murray would be Harry Williams. And Harry's been Harry Williams and a guy named Ross Maury. And I don't know if you know Ross, but now he sits on the Marist board now. He's the head of the mainframe division for IBM. And

really it was the person that was responsible for me getting involved in the joint studies, but he, that the details of the genesis of that had a lot to do with Mr Cannavino and the students at the time that were involved in that were, Harry Williams and Rhodes and Harry's still here at Maurice Ross is still with IBM. And another gentleman that was very influential in who was a sort of the technical adviser to Jim Cannavino was a guy named Charlie Tuller and Charlie Tuller was he was still involved in their joints studies when I became involved in like 2000-2001, and he was what's called a pep exec. Not sure what the pep stands for. He was an executive assigned to work with Marist on various things and he at the initial point in the early eighties, worked for Charile Tuller. And later on he worked for, after Jim Cannavino left IBM, he worked for a guy named, very high level executive. And so, you know, he actually had, Charlie told him he had an office in Poughkeepsie. You may have had them otherwise, other places. By the time I knew him, he was sort of towards the end of his career. But he was very well respected as well. So we're not, I don't know where you want to go with this, but when I came in 2000, it was more so prior to that, it was more bringing technology to Marist to see how it could be exploited or help a college. When I became involved, it was more about, uh, getting students involved in creating internships and we were having some difficulty in the Poughkeepsie lab of bringing students into Poughkeepsie and keeping them there. You know so we thought, why would you hire a student from Washington State University and bring them here to Poughkeepsie and they really don't like the east coast. They'd rather go to the west coast. So let's work more with the local colleges where students are already used to this environment and might be more willing to stick around. That was one of the, one of the emphasis for doing more with students. So and I had, you know, I threw my career, became you know, a manager of software developers did some hiring of students, had experienced with hiring interns, you know, in the layout. So based on that experience they thought I was a good match if I came to work with Marist and it was supposed to be a one year assignment .

Gus Nolan ([19:55](#)):

20 years later...

Howard Baker ([19:57](#)):

I ended up being here like 13.

Gus Nolan ([19:59](#)):

Are you familiar with Roger Norton? Do you know him?

Howard Baker ([20:01](#)):

I do, I love Roger Norton. Yeah. I worked very closely with Roger.

Gus Nolan ([20:05](#)):

If you played racquetball with him you wouldn't like him [laughter].

Howard Baker ([20:10](#)):

No, we work, he was the man on the Marist side other than the, the technical and he became the dean shortly after I started with the joint study and work very closely with him on the academic side. And they worked very closely with Harry Williams and Bill Thirsk, the CIO and **camera con** before him.

Gus Nolan ([20:31](#)):

You're getting close to the main question I had on this whole thing. And that is, you know, I've seen the most recent recent, not the most but I've seen research that said, you know, IBM has labs on five continents or maybe six and they put like \$5 billion a year into research. Yes. And the Personal Watson with at Columbia University in the 50's or some place. And before they moved up to the overland. Why would you ever come to Marist? I mean, here you are, a fortune 500 company with a 350,000 employees and Marist doesn't have 50,000 graduates or even who went here, you know, we're such a small. But I think what you touched on is the practicality of trying out some of the testing, the needs, so, and the work-ability of some of the programs and so on. So in that sense you are, and you must know some of the students now who have graduated and gone on in these careers.

Howard Baker (21:40):

Yeah, we do, a lot of them did. Yeah. So yeah, there was a practicality in terms of, first of all, the students were very good. Okay. The computer science IT students were very good. They can compete with any, the top students here can compete with any students from any college. And I was really lucky to have exposure to, you know, really good students and was able to show through their work on these joint study projects. We did real projects. We didn't fool around. We did real projects that showed the value of new technology. And so, that I think during the joint study timethe reputation of the marriage students grew because they could see the quality of the students. The other thing we were trying to do is, you know, the mainframe is sort of, people think it's old technology. Of course it's not old technology gets updated all the time. And but it was seen as old technology and we try, we had to get to the younger folks, the students in colleges to let them know, you know, it's not obsolete technology. It's, it's cool stuff. And that the, one of the inroads into that was the Linux operating system and doing more with Linux on the mainframe, which Marist wasyou know, a leader in that. And the other thing was the operating system, which I called the MVS, it's now called Z, which is the mainframe need from the mainframe, Z slash OS operating system. We wanted to make sure that we had students that got exposure to that. So industry, these huge companies that run these mainframes, we're losing people like me who are retiring. And there were no students to come in with any exposure to mainframes to replace those skills. That was a big concern. And we, Marist was really the pioneer also in trying to, MMM, have a rebirth in terms of education regarding mainframe education. So we developed a lot of courses here too for that, a guy named Angelo.

Gus Nolan (24:03):

Right. Assuming that the mainframe production at IBM is still going on in the same South Road?

Howard Baker (24:09):

Yeah. It's, it's still manufactured, assembled in Poughkeepsie. Yeah. That is, Poughkeepsie is still the center of the universe for the mainframe, in terms of the hardware engineers that develop it and design it, Yeah the actual, you know, assembly of the mainframe, unless it's changed in the last couple of years, but I don't think it has. And then the software developers that developed the operating system that runs it. Now, there are other labs in Germany and throughout the world that also work on aspects of it.

Gus Nolan (24:42):

Is the SDN, , innovative lab aunique thing?

Howard Baker (24:49):

The software does networking.

Gus Nolan (24:52):

I had to look it up I didn't know what that means.

Howard Baker (24:57):

Like I talked about the virtual machine, which simulates hardware through software. SDN does the same thing for networking. So instead of having to have all these hardware network racks of a hardware, you can simulate that in one piece of hardware through software and have multiple systems. Yeah. So, yes. So that was one of the things that we did towards the tail end of my tenure here on the joint studies was really do some pioneering work in software to software defined networking through working with Casimer DeCusatis, who was a PhD guy out of Poughkeepsie, IBM and some of the faculty here under Roger. Yeah. And actually Casimer now as a member of the faculty here at Marist. And so, and we worked with, so it was IBM working with partners of IBM that were companies with students on projects to showcase the capability of software defined networking. Yup.

Gus Nolan (26:11):

So your work here was very much a hands on work, it was not just administrative. Yeah. You are dealing with the students.

Howard Baker (26:20):

And I mean that was the core of it. Dealing with, the thing that I enjoyed the most, that's the thing that Marist enjoyed the most in terms of these, are great opportunities for the students to do things, to work in the lab, to get exposure to real leading edge technology, working with IBM experts. Yeah. Experts, other experts from the field. They're faculty. That was really the beauty of it.

Gus Nolan (26:47):

Moving in to a specific kind of general areas now, words like cloud analytics, mobile security, social or the roles in the different functions that are operative, that are coming out of systems. That's all going on here now? They're working with, or developing security techniques. And in terms of our.

Howard Baker (27:13):

Cloud computing, certainly again, that the cloud computing sort of was a natural step from the virtualization part of cloud computing is virtualization. So we already had some of that in the VM operating system. Software defined networking is another big example of that, analytics they have a professor here who has done a lot of good work in another one of Roger's professors.

Gus Nolan (27:49):

Can you talk about analytics again? What does it dealing with?

Howard Baker (27:54):

well, I think it's, and I'm no expert in this area, but we have so much data these days and Okay. There's so much data at these days that it's hard to sort out the information that's contained in that data. So there are several products and IBM purchased them, something called SPSS. And there's another product and the name escapes me now, but they saw the benefit of these products and they purchased them and they're now part of IBM's software portfolio. And there's a professor here named Eitel Lauria, he's part of a Roger Staff and he had experience in that area. And there are also open source versions of

the software that do similar things. So the idea of analytics is to use these tools to pull out this information that's hidden. You hidden in these huge data sets, which they are overwhelming for the human being obviously to try and make sense of. And by using these tools you can get inferences out of the data and you can use it on things like Twitter feeds and see how what's trending in terms of, and they also used it to, to some extent to a look at some data that was culled from the online learning system to see if they could do, if there were early warning signs for students that may be in trouble based on certain characteristics.

Gus Nolan ([29:47](#)):

And I guess security as a system kind of speaks for itself. How do you make a program secure? How do you make a computer secure is that it?

Howard Baker ([29:56](#)):

Yeah, exactly. I mean again, IBM side has been doing a lot in terms of security. I myself worked many years in a, in a product for the mainframe it was called Rack F, which is an acronym RACF, which provides security, you know, makes sure that you're authorized to use the resources on that computer that you were supposed to have access to. Beyond just simple login and so forth. But can you have access to that data set, well know you're not allowed to, so we're not going to let you there. Now it's much more sophisticated than that. But yes, that is a huge issue. Now obviously security and a security tied in with software and software defined networking and how do you make these software defined networks secure and so forth. So I think that is an area that since I've left, which was in 2013, I think they've done more work in that area, particularly since Casimer DeCusatis has come over from IBM. He's the networking expert that's now working more closely with it. He's a faculty member now. Another guy is Robert Cannistra, which is a very well respected among the student body. He taught, teaches all the basic networking courses and I think he and Cas are working together on some of those.

Gus Nolan ([31:16](#)):

When we finish, I want you to write some of these names down. I would just one or two, I would like to get to just to kind of like, well like what you are saying here you know give us a more comprehensive view of it.

Howard Baker ([31:31](#)):

So yeah, we developed that cloud computing and analytics center at, at Marist through a grant from the state. We were involved at IBM provided some of the software for that. Marist purchased some IBM equipment through that grant. It's up and running right now over in Hancock. I mean, that was another big item that came out of this, well it was part of this joint study was that in the midst of it all, Ellen Hancock, had provided some funding to get that building started. Once that building was built, we had a lab downstairs devoted to the pretty much the joint a part of it devoted to joint studies and our students had access to that. Prior to that we were in a couple of closets over in Lowell Thomas that was a closet. Now we had our students had their, I'm sure you've been there. Right. And you see where the students have their working space right next to the lab, it's was fantastic. And the faculty's right upstairs. And there's nothing like having, you know, uh, students working with faculty, working with industry experts right at that, right at the computer in there. You know, you can only do so much over telephone call.

Gus Nolan ([32:56](#)):

I play one of the first phones the Marist Poll that went out, you know, which now has again, through Lee Miringoff you know, has some national recognition. Informally, would you say then the security thing that probably the Russians have the same kind of research going on, and the Chinese have the same kind of pursuit to develop systems or securing and for protecting their own data. You couldn't keep a lot of today without that going on I imagine.

Howard Baker (33:38):

Right, right. And then they're using some of our products to protect their assets, but certainly, yeah, but I'm not, I, I'm not involved in, I had no exposure to that.

Gus Nolan (33:52):

Just, you know, just because of security being such a word thrown around in terms of computers and et cetera. It's just a,

Howard Baker (34:02):

IBM will claim that, you know, the mainframe is one of the more secure platforms in the world. So yeah, that is his strength, one of its strengths. So a hardware and software side.

Gus Nolan (34:14):

Let's look into the crystal ball, what do you see maybe five years or 10 years from now?, Would you imagine that this joint study would continue, would be enhanced, what would you suspect?

Howard Baker (34:28):

I think it will continue because I believe in has shown its value. It, to be perfectly honest. Yes. It was always a struggle to make sure it continued from year to year. And that was part of my job, I think, to make sure that the executives at IBM thought they were getting the right return on their investments here. Yeah. I think Marist saw it all the time. I think, I hope they did, but the benefits it gave the students. But on the IBM side there's always a competition for dollars that, you know, have a lot of people asking for.

Gus Nolan (35:17):

I am sure other schools are saying we can do as well as Marist or even better. But, they can't,

Howard Baker (35:23):

Yeah well, you know, RPI is an example of what we do, we did a lot of work with them, but it's a, I don't think it was as much hands on direct involvement with students where students got real benefits from it. And so I hope it continues. It you know, you mentioned Roger Norton, he was a visionary in terms of how we could do more things here. Ross Mauri will be very influential in going forward on this sort of thing and President Murray was, he was absolutely and his team, Roy Merolli. I worked with Roy for many years, he was great to work with, and saw the value. So, as that team, changes I don't know what's going to happen, but I certainly hope it continues. I mean, Marist student reputation has grown over the years and in terms of computer science and IT and IS, so they're great students. IBM should realize that hopefully, I, you know, I hope it continues, but, the fact it had, you know, we went through some, it continued through some pretty lean years at IBM, so, yeah.

Gus Nolan (36:48):

Well that's a strange expression, but I guess on a, on the financial pages there, yes, the stocks went down and but nevertheless, you know. IBM is still a high flying flag as certainly an industry.

Howard Baker (37:01):

Oh yeah, great people.

Gus Nolan (37:03):

Do you know what Jim Vitante or did you know him?

Howard Baker (37:08):

Jim Vitante, No.

Gus Nolan (37:09):

He was one of the first of IBM to make with Linus Foy, who was the president before Dennis. So we're going back into mid sixties, in the beginning of the relationship between Marist and IBM, and more on the educational rather than the technology part. And then Dennis put it ahead.

Howard Baker (37:31):

We usually say this joint study goes back to the early eighties, but I'm sure things were going on before that.

Gus Nolan (37:39):

I know 85-88 is a kind of a general genesis period of them coming on and setting up here and yeah. And it has certainly weathered over the years just to the faculty and the students that have come in and have just made it stronger and stronger.

Howard Baker (37:58):

I can tell you my job was the most sought after job Poughkeepsie IBM, everybody wanted me, and they were right, it was a fantastic job. It was you had your office here, you, it's an academic environment. It's a, which has its advantages. It was working directly with students and faculty and always usually, always on, you know, new stuff, leading edge stuff. That was the wonderful part of it. Okay. And these students didn't work just with the Poughkeepsie, IBMers they work with people from our Vancouver lab, we worked with guys from Germany. was, uh,

Gus Nolan (38:45):

In the perspective of development of Marist which is one of the whole point of these interviews. How do we get to where we are now? And you know, it's this concerted effort of that the community helping, us. But there's also been a kind of a qualitative change in the development of the students who are here now. I mean, there seems to be more expertise, familiarity, they, well, students today are much more technical advanced with the iPhones and computers and so on and so on. Then the earlier days, you know, I think you must have seen a change from your first years here to where we are now. Their students coming in.

Howard Baker (39:29):

Yes, I did. It's as I said before, and Roger and I have talked about this, Norton that the students in your, your top students here at Marist can compete with any students from any school anywhere. And I did see, I had great students and they just seem to get stronger and stronger each year. And some of them actually came here because of the joint study with IBM. I had one particular student who was a Valedictorian of his high school class and the only school he chose to apply to was Marist, I think because of the toys. That's what he told me anyway.

Gus Nolan (40:13):

Oh, well two points. In your experience, there's been ups and downs, I always say, I would imagine. Yes. What would you say was one of your disappointments and then what would you say one of your greatest accomplishments? A disappointment that you had, something that didn't happen, that you wanted to happen, something that was missing and could not be taken care of. Is there some area like that?

Howard Baker (40:36):

Well, when I first started the job I had a bunch of fairly healthy budget and allowed me to hire a fair number of interns. And CIO, Charlie Tuller had some access to funding also. He was able to, for instance, that work we did with Germany, he would through his funding, brought experts from Germany to be here on campus for a couple of weeks to work directly with students. Over time, that sort of level of funding diminished and that it became more of a fight to go after internal grants that IBM provided to do the things we did. Were that we wanted to do. That was the struggle over time was a little bit of a disappointing part.

Gus Nolan (41:43):

Did you have to grade students? Did you have to give them A, B, C's or?

Howard Baker (41:45):

We gave them evaluations. Yeah, but I did not, not in the sense of a grade for their internship. I mean, they were paid, they were paid and if they didn't work out and maybe we didn't get asked back, that sort of thing. Yeah, that was the other advantage, I begin over time to you know, typically in turns or maybe after junior year you hire them and then see if they work out and then after the senior year you could hire him. I've brought in actually a freshman and sophomore, so I had them for two or three years sometimes. So you saw the progress and it helped me because these guys got very experienced. So in terms of disappointments, that was, that was maybe one, I mean the accomplishment, the biggest thing I, aside from the students and the experience that they had, and I don't know how many students I had, a lot, but, that was to me that the joy of the whole job really is to see their development just like it would be for a professor here. The other thing is through working with Roger and his faculty and a guy named Angelo Coradori, Maryann Hoffman, we developed this mainframe education system, several online courses. It's the premier mainframe online education in the country, in the world actually. Yeah. Yeah. So that was something that we can certainly hang our hat on. We, in the early stages of the joint study, we worked on a e-learning system. And we had students and we had somebody from the Vancouver, our lab in Vancouver who had expertise in this area. He actually came here and stayed and worked with the students and we developed a pretty good, I guess first version of an e-learning system, which we, I think we hope that it would, be, we could use it in other colleges or sell it as a product and that sort of thing. It was, that work did go into some work that was done with New York City School district in terms of providing portals to different applications. This was in the early two thousands. This sounds very old now, but it was sort of leading edge stuff and there was a contract that we got with New York City that

used a lot of that technology, but it didn't really take off. So that's a little bit of a disappointment. But, mostly really good stuff. I mean, later on the work we did with and software defined networking, the creation of that cloud computing and analytics center, the work we did with Eitel Lauria on lots of different things. Rob Canistra, Angelo Coradori, the whole faculty over there.

Gus Nolan (44:47):

Yeah. You speak highly of the faculty. Do, are you involved with graduate students as well?

Howard Baker (44:53):

Yeah, we had some graduate students. Yup. Some that went on to get PhDs afterwards. So I can think of one fellow who worked on sort of the precursor to cloud computing was called grid computing. And it is the idea of, connecting multiple computers together and using the compute power of multiple computers to solve a particular problem. And the student developed a very simplistic application to demonstrate it. And we went to a conference down in New York City and he and the system we were using was running here at Marist and he demoed it in a conference in New York City. Very impressed, very impressed. And he did the same sort of thing with software defined networking many years later. I mean these software defined networking kids got to go to a conference in Europe with a Professor Canistra, to demo an application we'd developed that sort of demonstrated the power of software to find networking. So it was great experiences for them.

Gus Nolan (46:09):

So, in conclusion is there something I didn't say that you want to say? I tried to get across our world and your involvement here.

Howard Baker (46:24):

No, you covered it pretty well. I mean, I think you can tell that I, I was here 12, 13 years. It was, it was a great experience for me personally. And I think the students got a lot out of it. And certainly the faculty, the faculty and the IT group, here Bill Thirsk's team I think benefited from it. And like you said, I'm gonna let you know, you asked me about the future and I just hope it continues because I think, and I think, I dunno why IBM doesn't do it with more colleges, to tell you the truth. That was part of what we tried to do here too, is develop a model that could be replicated around the country.

Gus Nolan (47:09):

Yeah. And closeness to IBM though, I assume the proximity to IBM kind of helped.

Howard Baker (47:14):

Yeah the proximity to IBM is a huge thing, and as time goes on as people in IBM remember their experience with the joint study, they might be more willing to, if as they become executives, fund this type of thing.

Gus Nolan (47:28):

And so now you got to take care of grapes or apples or what is it that you're raising?

Howard Baker (47:31):

I have a vineyard, if you live in Marlboro you have to.

Gus Nolan (47:35):

Yeah, I understand. Yeah. Hudson Valley is Apple country too.

Howard Baker (47:42):

it's apple country and Marlboro is really at the center of that. Yeah. But more and more of vineyards and wineries are popping up. Yeah.

Gus Nolan (47:49):

Well, Howard thank you very much. It was good seeing you.

Howard Baker (47:51):

Thank you very much.

Gus Nolan (47:52):

Thank you for taking the time sharing with us your experience at IBM in here.

Howard Baker (47:58):

Well, thank you very much.