

3-21-2003

Marcus McWaters oral history interview by Yael V. Greenberg, March 21, 2003

Marcus M. McWaters (Interviewee)

Yael V. Greenberg (Interviewer)

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McWaters, Marcus M. (Interviewee) and Greenberg, Yael V. (Interviewer), "Marcus McWaters oral history interview by Yael V. Greenberg, March 21, 2003" (2003). *Digital Collection - USF Historical Archives Oral Histories*. Paper 142.
http://scholarcommons.usf.edu/usfhistinfo_oh/142

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USF Florida Studies Center
Oral History Program
USF 50th History Anniversary Project

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Date of Interview: March 21, 2003

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Location of Interview: Tampa
Campus Library
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Final Editor: Jared G. Toney

TOPICS OF DISCUSSION

Year of arrival

Dr. McWaters came to USF in 1966 as an assistant professor in the College of Basic Studies.

Where was he before coming to USF?

Dr. McWaters came from the University of Florida, where he had just received his Ph.D.

Dr. McWaters interviews with different colleges

He interviewed at various colleges before coming to USF. He interviewed at the University of Paris, University of Maryland, University of Houston, and George Washington University.

Dr. McWaters is contacted by USF

He had no intention of relocating to USF, which was a young university with no research faculty. The chair of the USF Mathematics Department at the time, Frank Cleaver, contacted him. He asked Dr. McWaters if he would come to USF for an interview. Dr. McWaters declined. Frank Cleaver was persistent, and asked Dr. McWaters if he would come and at least give a speech at USF. Frank Cleaver told him he would have a nice place to stay at Indian Rocks Beach. Dr. McWaters was told that he could enjoy a nice weekend stay there after giving his speech on Friday. "I came down, and liked very much the atmosphere at USF, but still felt there was no research program here. I thought I would be better served to go elsewhere," says Dr. McWaters. Professor Cleaver called Dr. McWaters on a regular basis to find out how his interviews at other universities were going. Professor Cleaver continued to press Dr. McWaters to come to USF. Professor Cleaver told Dr. McWaters that he was moving out of his house and that he could come and take over the ownership of the house and start making payments from that point on. "That was such a good offer that I thought I might come for a year," says Dr. McWaters. He then turned down the other offers he had at that time. "I came to USF expecting to be here a year or two at the most and then move on. As it turned out, I liked the University of South Florida very much, and the result is that I've been there since that time," he says.

Arriving at USF in the College of Basic Studies

He came to the College of Basic Studies at USF. There was a math department in the college. The sciences were in the College of Natural Sciences, and the math department was located there. The chair he came to work for was Don Rose. He came to the Basic Studies College instead of the Liberal Arts College because the Basic Studies College could give Dr. McWaters all of its travel budget, and a higher salary. Basic Studies told Dr. McWaters that they were going to develop a research program and that he would be the linchpin for getting it started. Also, he was told that he could teach the upper level courses and would not have to teach the Basic Studies courses even though he had his appointment in the College of Basic Studies. From all these offers and circumstances, Dr. McWaters chose to come to USF. “It was a very nice beginning, and it stayed to be a very pleasant way to spend a lifetime,” he says.

Description of the first time Dr. McWaters saw USF

“Well, it was not a busy place when I first arrived in the summer of 1966. The campus was very deserted. I had seen it once before, but that was a day of thunderstorms. So I hadn’t really appreciated the spacious look that it had at the time,” Dr. McWaters says.

Description of the area surrounding USF

“There was no University Mall. Fowler Avenue was two lanes. There were no strip malls really anywhere,” he says. Dr. McWaters was located off 22nd street, a few blocks from campus and the west area of Bruce B. Downs. He says that since traffic was virtually absent, he could easily ride his bike to campus in ten minutes.

Student population in 1966

The student population was not overly large. In each of the classes there were about twenty-five to thirty students. “It actually was a very pleasant beginning,” he says.

Courses the Math Department taught in 1966

According to Dr. McWaters, the math courses in 1966 were the same kind of courses that USF teaches today. “Math has a certain permanence that is hard to resist or overcome. So we taught courses in college algebra, finite math, linear algebra, differential equations, and occasionally topology,” he says.

Location of his office at the time

His office was in the same building that it is today—the Psychics and Math Building.

College of Basic Studies

He does not remember the size of the College of Basic Studies. He thinks it was very large since the college taught many freshman courses. “I didn’t much identify with the college. I really came as part of a program. I associated with the people in the College of Natural Sciences who were in the math group,” Dr. McWaters says. He says that the people in the Basic Studies College mainly had master’s degrees and not Ph.D.’s and were teaching large classes of college freshmen. Even though his appointment was with the College of Basic Studies, his affiliation was with the math department in the College of Natural Sciences.

President of University in 1966

Dr. McWaters believes the president of USF in 1966 was John Allen. He was not interested in the president or that area so he is not 100 percent sure about who the president was. “General the academic programs were your focus, and the administration sat above you and hopefully did not get in your way,” he says.

How the math department has changed since Dr. McWaters arrived in 1966

In 1966, the math department was in two departments: a Basic Studies math department and a College of Natural Sciences math department. Those departments merged when the Basic Studies Department was eliminated and USF gained the College of Arts and Sciences. The math department then became unified. The people who had master’s degrees in the Department of Basic Studies left. Now, there are only people with Ph.D.’s. According to Dr. McWaters, virtually everyone in the department, with a few exceptions, has a research assignment. “The department has instructor lines, which the department did not have before. The department had only assistant, associate or full professors and adjuncts. “We have a much stronger research group now. In fact, our approximation theory group is ranked first, second or third in the world. Our discrete math group is very strong. There were no real strong identifiable groups when I first came to USF,” Dr. McWaters states.

How long did Dr. McWaters think he would be at USF?

He thought he would be at the university for one or two years. He has stayed for thirty-seven years.

Women teaching mathematics at USF

Dr. McWaters says that there were women teaching, but they had master’s degrees, not Ph.D.’s. Jane Reed, who is still at USF in an administrative position, was one of the math department’s adjunct professors.

Early educational philosophies of USF when Dr. McWaters first arrived in 1966

At USF in 1966 there was a liberal arts mission to broadly educate the student body. A grueling emphasis was placed on bringing scholarship along to the Ph.D. level to where USF would have graduate programs. USF wanted the graduate programs to be first rate and compete well with others around the country. “So the language has not changed much over the years. We have probably come further along that path. We do have the College of Arts and Sciences’ thirteen Ph.D. programs. And we are well recognized in a variety of these. The philosophy I don’t think was very different,” Dr. McWaters states.

His interaction with other departments in 1966

He did not have professional interaction with other departments. He did have friends in the philosophy department. His contact with other departments was primarily personal. Faculty interaction among the departments was not mentioned when Dr. McWaters arrived at USF. The interaction was not discouraged, but it was not something that was actively pursued. “The interdisciplinary thrust is a much more recent thing,” he says.

How USF differed from other institutions where Dr. McWaters had previously worked before coming to USF

He worked for two other institutions prior to USF. He was a faculty member at the University of Florida and Louisiana State University. When he first arrived at USF there was not a cohesive graduate program. Dr. McWaters says that USF differed in that sense. The two departments at UF and LSU were mature, established and had well recognized graduate programs. "So we had the task of trying to build the department into a department where we would have Ph.D. students and where our main emphasis would be to train people to work beyond a master's degree," Dr. McWaters states.

Dr. McWaters describes the professors trying to improve the lack of an organized math department

He says that trying to improve things depended upon the professor's specialty. Dr. McWaters states that the department had very few specialties. His specialties were Topology and Algebraic Topology. Other specialties included a few analysts and algebraists. "What we were hoping to do was to find a core of students who were interested in and had the talent to pursue those specialties," he states.

Things that stand out about working at USF in the early days

There was very little professional life when Dr. McWaters first arrived. "If you had a seminar, a few of the faculty would come out of courtesy when I first arrived to see who I was and a few graduate students would attend. But, by and large those who ran the seminars carried the full burden of delivering all the material and educating the people that came. It was not so much a cooperative effort as it was an individual effort. That of course has changed quite a bit over the years," says Dr. McWaters.

Dr. McWaters' early students at USF

"The undergraduates students have not changed very much, in my view, over the thirty-seven years I have been here. At the lowest end with those students who take mathematics because it is a required course there is still very little interest in learning mathematics. It is a challenge to overcome. The disinterested boredom permeates a lot of the classes. I suspect that this is an ongoing challenge," he states. Dr. McWaters says that this is a challenge he is much more accustomed to now than he was then. "It was a frustration when I first arrived. It's a fact of life these days," he says.

Student population in the math classes (now and then)

Dr. McWaters believes that as a percentage the number of students taking mathematics courses is about the same. He says that there are certainly more because the school has grown a lot.

Differences between Dr. McWaters' math students in 1966 and the math students now

Regarding motivation and desire to learn, he sees no difference at the undergraduate level.

How the graduate students were different from the graduate students in the early days in the math department

He believes that now the graduate students are much better trained than they were in the early days. The graduate students hoped to be professional mathematicians and they were interested in the material. When Dr. McWaters first came to USF he says that the graduate students were few in number and not well skilled. The talent level and the number of graduate students have greatly increased since then. “The students we get now are quite talented and will be excellent professionals if they continue to work in the way there are now,” he says.

More foreigners now in the math department

Dr. McWaters states that another difference is that students now come from all over the world. According to Dr. McWaters, when he first came to USF, he believes the math students were 100 percent American. He now believes they are fifteen percent Americans.

The dominant countries from where students in the math department come

The students come from the Eastern bloc countries and from India and China. Other countries include, Israel, Macedonia and Bulgaria. He believes that there are four African students in the department. “Almost every country has been represented at some time or other,” says Dr. McWaters.

Why these foreign students come to USF

They identify faculty with international prominence and they hope to come and work with those faculty members. Getting a Ph.D. from someone who has an international reputation is very helpful for the students to get placed in a decent institution as a professor.

Minorities studying mathematics at USF in 1966

According to Dr. McWaters, minorities were non-existent in mathematics courses in 1966. “We do have many more women mathematicians these days. There is a horribly small number of African American and Hispanic mathematicians,” Dr. McWaters.

Dress code for students and or faculty in 1966

There was no dress code. There was a rumor that professors had to wear coats. Dr. McWaters checked out the rumor many times, and it turns out that there was no official dress code for professors. He opted not to wear a coat. The students of Dr. McWaters dressed typical of the 1960s time period.

The courses Dr. McWaters taught in his early years at USF

Dr. McWaters taught undergraduate courses. He also taught Topology and Algebra at the graduate level.

Race relations in the 60's—did they affect USF?

He says that he has seen nothing, at least in the math department, which would suggest that race relations are more or less important now than they were in his early years of teaching.

How USF's movement to focus on research has affected either mathematics or Dr. McWaters' teaching or career at USF

Dr. McWaters states that the very nature of a math department is to focus on research. In the math department an emphasis has always been to produce professionals who are going to contribute to the literature. He says that this emphasis has not increased. According to Dr. McWaters, what has increased is the support that the math department gets from the university in pursuing that goal. "The university's interests now match what has always been the math department's interest; an interest in getting a group of scholars together that can produce important results. The most important thing has been the ability to hire research mathematicians, and to make their lives professionally valuable," he states. Dr. McWaters states that part of making the professors' lives valuable is by giving them a teaching load they can live with, to support them in their travels to conferences, and in getting them the right tools to teach effectively.

What McWaters does now at USF

He teaches one course in the fall and one course in the spring. He is also the chair of the Math Department. He is in his fifth year as chair. His responsibilities as a chair include a range of activities. His activities are related to undergraduate and graduate programs, faculty development, and general staff well being. He has a staff of six people including an office manager. There is also a program assistant who handles the bulk of the graduate affairs. He is supposed to motivate the undergraduate and graduate committees and charge them with activities that need to be carried out, and then supervise the carrying out of those activities. Since USF students are required to have six hours of mathematics courses, he is in charge of developing a structure that supports the courses in such a way that students get a maximum benefit. The faculty needs to be motivated, supervised and helped so that it can be productive. "We need to make our presence felt in the mathematical community so that USF is a distinction. My responsibility is to push in all those areas to make sure we are where we need to be," Dr. McWaters states.

What made McWaters stay for thirty-seven years?

For many years he only thought about staying for the next one or two years. He never had the intention of staying for a great length of time. However, he had a family that was growing, friendships that were developed, and networks for his children and wife that would have been difficult to dissolve. He also had a travel budget that was very helpful. He was able to go to many conferences that he needed to attend. "My professional life was very rewarding in those early days. The inertia kept me here and I'm very glad that it did," he says.

How technology has affected mathematics (at USF)

"Mathematics is remarkably the same today as it was in 1966. You would expect that the advent of computers would have made a big difference. But in fact it hasn't," he says. Dr. McWaters states that very few math teachers use a computer. Mathematicians still use a pencil and paper and chalk and chalkboard. He says that what has changed in the mathematics world is the rapid exchange of information made possible by e-mail. There is no need to have scholars with exactly your same interests physically around you. According to Dr. McWaters, the phone does not work as well as the printed word does.

He says that because of e-mail and the Internet, you can be isolated physically but still have a cluster of people with whom you can closely work.

Other changes in math at USF

He states that newer areas exist in mathematics that were not here when he first came to USF. Dr. McWaters says that now there is a chaos theory and fractals. In 1966, these areas did not exist here at USF. The math problems that students would like to deal with and solve are still at USF.

Other faculty's career motives at USF in 1966 (staying or leaving)

“When I came the history had been of large turnover. I think I was the beginning of a trend. People stayed and developed professional lives,” states Dr. McWaters.

Any world-renowned scholars at USF in 1966 or currently

There were no world-renowned scholars at USF when Dr. McWaters arrived in 1966. “As USF has developed into a strong nationally, and in some cases, internationally recognized department, we have several outstanding world class scholars,” Dr. McWaters states. He declined to name them because he thought he might fail to name some that should be recognized.

Any personal contact with any of USF's presidents

Dr. McWaters did not have much personal contact with any of USF's presidents. He states that he did meet some, but “the contact was a handshake and a couple of sentences. He said that a very big change took place in 2003 when President Genshaft came to the math department. “This is certainly unprecedented,” he says. Dr. McWaters says that President Genshaft came to discuss the department's needs and goals. The president also met and spoke to almost everyone personally, and charged the group with motivation that the department had not send before. “It was a major change from what I've seen over the past thirty-seven years,” he says.

Thoughts to leave to all the people that Dr. McWaters has met over the past thirty-seven years

He says that he has seen a higher level of professional intensity and less personal discord at USF. “This has to continue. You want more and more professional efforts and fewer and fewer personal discord interactions, and also more collegiality. But, I expect that that is happening,” he says.

University scandals or controversies that he or students knew about

He states that there were none he knew about. But he also adds that he cannot say that there were not any scandals. “I am a horribly apolitical person and unless you really cause me to pay attention, I am not likely to.

Things he's seen change in his department (positive or negative)

He states that the only real negative thing is the financial difficulties that are occurring. Dr. McWaters says that there are fewer resources available to be able to achieve the math department's goals. He says that one positive change is an incredible increase in the

proficiency of the people in mathematics. “We get much better trained people today. They are highly motivated, more committed to all aspects of the department. They are better departmental citizens. I think this is a growing trend, and a good one,” he says.

What is the meaning of departmental citizens?

He says that what departmental citizenship means is less of an emphasis on what is good for the faculty member only and more of an emphasis on promoting the department’s goals. Also it means more of a concern for the students. According to Dr. McWaters, there is much more interaction among the graduate students and faculty members. The faculty members seem to be more concerned to make sure the graduate students are well trained and equipped upon graduation.

Any recent contact with his early students?

“I hear from them occasionally. I don’t make any effort to keep in contact with them. Every once in a while I’ll get a letter from a former student saying thank you for your contribution in my education. But, this is not a usually thing. It happens once every couple of years,” he says.

Why were those faculty members in 1966 so eager to get Dr. McWaters to come to USF?

In 1966, the chair of the Math Department at USF, Frank Cleaver, had come from Tulane University and was a good mathematician. He wanted to build a great department. He came to an academic program that was very weak, and his motivation to improve it was what caused the other faculty members to work together to bring in research mathematicians.

In 1966, was the Math Department weaker than other departments at USF?

He states that the Math Department was probably no weaker than the other departments at USF. He says that at a new university, most departments would be somewhat weak.

Library in 1966 (Books and materials that a mathematician would need)

He says there were good math books and resources available at the USF library. A library loan was easy. He was able to get most of what he needed from the library.

Early students (Course load and where they came from)

According to Dr. McWaters, the early students took about the same amount of courses as the students today. He says that the average age of the students on campus was considerable higher than what it is today. He also says that the early students came from the local area whereas now a lot of students come from all different areas.

End of Interview