SWE STORYCORPS INTERVIEWS

Katie Peterson and Maggie Hickel Interview

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Society Of Women Engineers National Conference

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Maggie Hickel and Katie Peterson

Maggie Hickel received a bachelor's degree in industrial and management engineering from the University of Iowa in 1975, one of just three women to receive an engineering degree from UI that year. She hired at 3M and spent her 39-year career there, retiring in 2014 as a senior project manager. A Fellow of the Society of Women Engineers, Hickel is a recipient of the Society's Distinguished New Engineer Award and served as its national president from 1990 to 1991.

Katie Peterson is an IT analyst at 3M. She graduated in 2002 from the University of Wisconsin Madison, where she first joined the Society of Women Engineers.

In their 2007 Storycorps interview Maggie Hickel and her daughter, Katie Peterson, discussed how they each chose engineering; the influence that Hickel had on Peterson and her siblings; the influence that Peterson hopes to have on her own children; their experiences being a mother and daughter in engineering; and their future goals and what they hope to be remembered for.

Katie Peterson: My name is Katie Peterson. I'm twenty-eight years old. Today is October 26, 2007. We're in Nashville, Tennessee, and I'm going to be interviewing my mother.

Maggie Hickel: Hi, I'm Maggie Hickel. I'm fifty-four. Today also is October 26, 2007, in Nashville, Tennessee. And I'm being interviewed by my daughter, Katie.

KP: Okay. We're at a SWE [Society of Women Engineers] convention, so I'm going to ask you about engineering questions. Uh, let's see. What did you think you were going to be when you grew up?

MH: I thought when I grew up—I think like most girls my age now—it was going to be something like a teacher. In fact, I wanted to be a kindergarten teacher. And then I noticed that after babysitting quite a few children that I couldn't stand kindergarten kids all the time. (laughs) So I thought, "No, that's not what I want to be." So then it was looking into something in math and science because I was good at it.

I remember being in high school and going to a session by the University of Iowa. And I went to the math program first and the professor there told everybody in the room, "Unless you want to be a math teacher you can't do much

with a math degree." So I thought, well I'll go to the engineering one. I was with my mom at the time. And I was the only girl in the session. And this professor was saying, you know, talking about engineering, and you needed math and you had to be good in science, etcetera, etcetera. And I can remember some of these boys raising their hands saying, "Well, I'm not good in math. Do you think I can still be an engineer?" And, "I never took physics, can I still be an engineer?" And I kept thinking, "I did that. I did that. I guess I could be an engineer!" So I thought, well, I'd give it a try.

So I thought, Well, I'll just go to the University of Iowa because there's a lot of opportunities. And started in engineering, because if you don't start in engineering it was harder to get out of engineering than get into engineering. So I thought, I'll start in engineering and if I didn't like it, I'll go be a teacher. And I guess the rest is history because I stayed in engineering.

KP: What did your parents think about you being in engineering?
I know your dad's an engineer, but were they okay with it?

MH: Right. Oh, they were very supportive. Yeah, they thought that was pretty cool, to go into engineering. So, I think they would have been okay if I was a teacher, too, you

know? And it was just something that—you know, when we were growing up it was always, "You're going to go to college."

So it was just—it wasn't, "Do you want to go to college?"

It's, "No, of course you're going to college, it's just, you know, what do you want to do?" So yeah, they were very, very supportive.

KP: Who influenced your engineering career? Was it a teacher, or somebody you worked for, or did you just kind of do whatever you wanted to do?

MH: To do? To get into engineering?

Well, even after engineering. Who influenced you the most?
Was it a teacher that was really like—that made you feel
like, yes, I want to be an engineer? Or was it—

MH: Yeah, I think it was probably—once I got into engineering at the University of Iowa there were ten females in the whole College of Engineering.

KP: Oh really?

MH: And at that time the professors there, most of the professors were really into trying to get women into engineering so they were so supportive, you know. So it wasn't like, you know, there was any discrimination or

anything. In fact, I said it was kind of reverse because they would make sure that we were given good projects and that we were put on committees and so that, you know, they would help us out. And when we decided to join the, start a SWE section we actually held, at first before we grew too big, all our meetings at professors' homes and they would host us every month, feed us dinner—

KP: Wow. (laughs)

MH: —and of course we're college kids, this is the greatest thing in the world. And they would tell us about their engineering, and what they did, and about their field of engineering. And that's how we did all our SWE meetings for a long time, until we got to about thirty people and that's too big for any, you know, professor to host. So then we quit doing that.

KP: So it was pretty much every woman engineer at Iowa in-

MH: SWE.

KP: —SWE then?

MH: Oh yes, it was. It was just because we were such a small group.

KP: Did SWE really help you stick with engineering and things
like that? Or—

MH: Oh very much. Very much.

KP: Did it.

MH: Not only as a section, but on a national level. And some of the women that were national president or some of the vice presidents. You know, one of the things that really I liked about SWE and really impressed me about SWE is that, you know, we're Iowa and lot of people are thinking, Iowa (with disdain), right? And they would actually come to the University of Iowa, to our section.

KP: They did? Wow.

MH: They did. And you know, I can remember—and they were down-to-earth people and they were just wonderful, and they helped us out a lot. And I haven't run into a lot of them here today, but occasionally at SWE conventions I run into those ladies that influenced me as a student and it is so cool because they're just still here and, you know. So that really, really impressed me, that they would take the time to come to see us students and help us out.

KP: What was the engineering field like for women when you entered it?

MH: You know, there were very few women engineers. And when I started at 3M there were only two of us in Abrasives [division]. And so I know that, you know, it was just the two of us that could talk to each other because the other women in the area were admin assistants. The admin assistants did not like having us there because we were—we could do projects with the males and there were a couple of them that were very jealous of our closeness and friendship and our ability to talk and communicate with these males.

Where before they were the only women and dominated in that field.

I think you had to prove yourself more. I remember going shopping with your dad and he saw a really—it was a really pretty, red suit, and he said, "Why don't you wear this to work?" And I asked him if he would ever wear a red suit to work. And he said, "Well, no." And I said, "I can't either." Because at that time "dress for success" was almost dressing more masculine. Navy blue, black, brown. Which I'm so glad now, you know, you can wear anything you want. And it took a long time before I felt comfortable

that I could wear what I wanted, and still be considered a female engineer.

KP: Yeah. Who's been the most important person in your career?

MH: That's a good question. Uh, in some ways your dad.

KP: Really?

MH: And I think in a lot of ways your dad because, you know, also being an engineer he understood some of those work things that had to be done. You know, things you have to do at night and on weekends, and the stresses and the frustrations, and also having to get away. Being very, very supportive that if I had to go in at night for an experiment or if I had to be on the road that, you know, he would understand that. So, that was very, very good for me and I think helped a lot in my being able to stay in engineering.

KP: Do you like your job? Maybe not, "Do you like your job?"

But do you like your choice of being an engineer? (laughs)

MH: (laughs) Thank you for clarifying that. (laughs) I am glad

I went into engineering. I like the fact that I've learned

a lot, and am able to use the—being able to process a

problem and to look at things from different angles. So I

really enjoy that. And I never regretted being an engineer as a career. There are other things, like when I said at first I wanted to be a teacher, I could still do, you know. As you know I taught Sunday School for ever and ever and worked with Girl Scouts and tutored kids and came into your kindergarten class with sciences, so that kind of fulfilled that end of things I wanted to do, while still being able to fill the technical end and the other side of me with engineering.

KP: That's good. Do you have any favorite stories from work life, or at least one, maybe? Maybe back in the day when you were doing real, hard-core engineering stuff where—

MH: Well, the one I kind of shared a little bit earlier. One of my first days on the job. I worked in Abrasives, which—sandpaper, very dirty. And as a brand new engineer, and especially a female engineer, going into the manufacturing plant with these very hard-core—all guys. And the foreman at the time, a wonderful man at that time name John LaHore (??)—he's passed away—you know, said he was going to give me a tour and I had white slacks on. And I thought, you know, I can either say, "No, I'm going to get dirty," or I can just say, "All right, where do you want me

to go." And he had me climbing over equipment and up ladders and down into everything to give me this tour. And did I get filthy? Yes. Never wore white slacks again.

However I think I gained his respect because I was there.

And, you know, another thing I learned from John is, they know a lot more about sandpaper-making than whatever—I may know some engineering, but they knew how to make sandpaper. So I never went in and said—I always asked them. I never told them. Asked them for their opinion and, you know, that always helped too. So that's one of my favorite stories. (laughs)

KP: That's a good one. What did you think about my decision to become an engineer?

MH: I always thought you should have been an engineer. And it's interesting because when you first said you were thinking about becoming a physicist, I always thought you should have been an engineer. But you know, just like my parents and I think parents should, you have to let children decide what they want to be. And maybe, you know, being a physicist is what exactly what you wanted to do, but when you said no, you were going to change into engineering I almost thought, "Well, I could have told you that!"

Because I always thought you had the makings of a good engineer. You know, you're objective, you're a good leader, you organize and organize and organize, you know that. You know, you had the skill set to do it besides being very bright, so I was very excited for you. The only concern I had, unfortunately, is the time you decided to be an engineer. When you graduated, of course, was a time when they weren't hiring a lot of engineers.

KP: Right.

MH: And I think that was very difficult for you and very frustrating. I really liked the fact that you did the two internships, two very different internships, you know, where you went up to Kohler—and small, small town—manufacturing. I mean that gave you a taste of small town manufacturing. Is that what you wanted to do? And then going out to California.

KP: Big city.

MH: Big, big city. You know, being in logistics. You got to see what you like to do, and gave you some idea of things you wanted to do. You weren't afraid to do that, so I liked that a lot.

KP: Did you encourage me to pursue engineering?

MH: We encouraged you to do well in math and science. That we did. Strictly engineering? I don't think so. Do you think we did? I mean you're an engineer so—

KP: No, I don't think so. You know it was always math and science. And I'm really glad you did that. I hope I can do that for my kids too. You know, because I just think those are the coolest. (laughs) The coolest subjects, so why not?

MH: Yeah. Well, and the thing is, you are very creative, and engineers have to be creative. And one thing you are also is artistic and a lot of engineers aren't artistic. You don't need to be artistic. You need to be creative. You happen to be both, which is, you know, kind of a plus. It's something that you can do in your spare time if you want, is that artistic area.

KP: Yeah, well personally I'm glad you did that. And we went to Super Science Saturdays and stuff like that because—

MH: That's true. That's true, I always got you into those Super Science Saturdays or—

KP: Yeah, and just showing us how cool math and science really could be and how it could be used in the real world, and that's what makes it so neat, you know?

MH: Yeah.

KP: Are there any words of wisdom that you'd like to pass along
to me?

MH: To you? (laughs)

KP: To me.

MH: To you. Uh, I guess just kind of, you know it's kind of an old saying but, you know, be true to yourself and what you want to do. You know? Kind of be yourself and see what you can do to make a difference. And I know you're going to be—you are a great mom, and you're going to continue to be a great mom. And I already see you passing on some of those things to your son, as far as a love of learning. You know, that's what I think is so neat, is I see how you are just encouraging him, you know, at the age of, what, twenty-one months or twenty-two months?

KP: Yeah.

MH: Just that love of curiosity and that love of learning. You know, that's going to be so important all the way around

so, you know, my words of advice is, keep that up. Keep what you like to do and not what you think the rest of the world wants you to do.

KP: Yeah. What are your dreams for me?

MH: You know, my dreams for you and your sisters have always been that I wanted you to grow up to be good people. You know, I never told people I wanted you to be engineers, that I wanted you to be rich, famous, or whatever. I wanted you to be good people, and all three of you are such good people that, you know, it really makes me so happy.

And so my dream for you is that you're able to live the life that you want, you know. Obviously, you know, you're not going to get everything in life that you can dream of. You always know that, you know, you may never win the lottery. But I think you need to take life with what it gives to you and live it to the best you can. And my dream for you is that you're happy, that you continue to be a good person and that you're happy with the life you have and that you've found your life being fulfilled. And a little bit what we talked about before, that you make a difference in something, whether it be in, you know, your life, your son's life, your soon to be son or daughter's

(laughs)—whatever we're going to have here, you know—life, or in the community or further on.

KP: Are you proud of me?

MH: I'm very proud of you. Can you tell? You bet I am proud of you. And I just think it's so neat that, you know, we're still in SWE together and now we're both recruiting for 3M. I think we're really close and that we still do things together, whether it be, you know, work related things like this or cake decorating classes. (laughs)

KP: (laughs) Yeah. I am too. You're one of my best friends.

MH: Well thank you! Yes. Here, would you like a Kleenex? (laughs)

KP: Uh, let's see. (pauses) Hmm. Sorry, it's dead air.

MH: I could ask you?

KP: Okay.

MH: Okay. So what do you think influenced you? Do you-

KP: Oh, definitely you guys. Definitely my parents. Definitely you guys, you and dad. Just, I mean just your love of science, and your love of math and science, and you know, just your excitement for what you do. And you know, you

could hear it in your voice that you like what you're doing and I think—and maybe you didn't love your job all the time because, you know, it's still work, (laughs) but you could tell that it was something that you were passionate about and you and dad were always very passionate about it and I think that brought that out. We always knew that it was something cool to, you know, to do.

MH: To do. Well, one time when you were little someone asked you if you wanted to be an engineer and you said no—

KP: Because you guys were. (laughs)

MH: —because they travel too much and they work too hard.

KP: Yeah.

MH: So something obviously changed your mind.

KP: Yeah.

MH: Do you remember that at all?

KP: I don't remember that, but I could see that. But, you know, once you go to college—and like when I went to college, looking at the different majors and stuff, just nothing popped out and interested me except for engineering, you know? I wasn't one of those people that was like, "Oh, I

want to go into psychology." You know, it just didn't interest me, so that was the only one that seemed like a natural fit.

MH: Well, that's good. Well, if you have a girl—and knowing that there's a still a little stigma about girls being good at math and science, excelling, you know—how do you think you're going to influence your little girl? Hopefully your little—if you don't have a little girl, your little boy?

KP: (laughs) Yeah. Oh, just tell them that the world is silly, that girls can do anything they want to do. Just like you guys did, you know. Just tell us that you can do anything. Period. You know? Anything you want to do, anything you put your mind to, you can do it if you just try, you know. That's it, and that's all you have to do.

MH: Yeah, that's true. Well, like we said, we just told you you had the wrong parents (laughs) if you weren't good in science and math. Obviously you had the wrong parents, with two parents that are engineers, right?

KP: Exactly. Well, and this baby is going to have two computer
nerds as parents, (laughs) or engineer and computer nerd as
parents, so they're going to have to know that stuff. But
I'm sure the love of learning gets passed along and

hopefully we'll show that, like you said. You know? And we'll be taking them to Super Science Saturdays, too, so hopefully they get addicted to how cool it is.

MH: Well, it is cool. It is cool. I can't wait until Xavier is a little bit older. I keep looking at these—well, I bought you those math and science [materials], how to teach math and science to children. (laughs) So I'm already planning ahead on that, just to show them that, you know, stuff like that is fun. It's really fun. They can play sports, because you did too, you know. They can be creative or do Girl Scouts or whatever they want. But don't forget that math and science, also.

KP: Exactly. And, you know, you're right. There is still that
 stigma out there. And I don't know why there is, but I
 think there still is.

MH: There is. Yeah.

KP: You know, and that's when they come home and say that stuff, you just have to be like, "They're silly! You know you can do anything!" You know, just turn it around and just make them believe that if they are smart and top of their class—I think a lot of people, if girls are good at math, they get really jealous, you know, and that's half of the problem. They're jealous they can't do it.

MH: Right. One other thing you told me, again I don't know if you remember this. You told me once that, I think we were talking about dating or something, you were not dating at the time. And you said it was because we made you too strong, that we made you very strong women.

KP: Yeah.

MH: Do you still feel that way?

KP: Kind of. Because I think you need the right kind of guy. And not a lot of guys are willing to date strong women who know what they want to do, who aren't—you know, they don't need to be taken care of. Even, you know, when you're younger there's still that whole mentality like, "Oh, I need to be taken care of." Even, you know, not financially or anything like that. I think there still is that whole—it's all mental, you know, and I never was one of those people that needed a guy for anything. And I don't know if that had to do with anything educational or anything like that, but it was more—I knew what I wanted, you know, and I wasn't going to settle for anything less

than what I wanted. So I didn't have to go dating a thousand guys to figure that out.

MH: That's true. Well you have a good guy that's supporting you, so that helps.

KP: Yeah.

MH: That's good too. I'm so happy to see that. And your dad and I really like David.

KP: That's good.

MH: Because he is, he's good to you but he's also very supportive, too. He understands that sometimes jobs are rough and sometimes you have to work hard and long.

KP: Exactly.

MH: You know, you're a team.

KP: Exactly. Well, and I think just of the same way that you and dad, you know, he knew what you were going through and that made it easier. I think with both of us working at the same place and kind of in the same type of field, I mean, you know, that we can kind of understand what each other is going through and that does make it a lot easier, that we both know those stresses of what's going on day-to-day. And

you know it can make it harder at some points because we might both be stressed at the same time, but, you know, we both know that there's a reason behind it and stuff which is crazy, and stuff like that.

MH: Right, right. Well I know your dad travelled a lot when you were really young and part of me says that, you know, that that made us closer. Do you think that affected either your relationship with me or your decision to go into engineering?

KP: I don't know. It probably gave me that whole, "They travel too much and work too hard," thing. But I don't know. I think it made us, you and I, closer. I think, you know, (inaudible) Mandy and Stephanie, my two sisters, and you had to be closer just because we had to, you know, do everything together. We had to compromise on things like that and get things done.

MH: Right. I think it made you more independent because we didn't have anybody else around and we didn't have family around. You know, so if something needs to be done—

KP: We had to do it.

MH: We did it. So I remember when, I think it was Corky, chewed through all the wires on the lamps (laughs) and you and I rewired all the lamps, because that's the way life is.

KP: Yeah.

MH: You know, I hope you found that that way, and not that it was a terrible thing that dad was gone so much.

KP: I don't think so. I mean, I remember missing him and kind of feeling like that but, you know, I never felt like we're missing anything else out of—you know, it was just more of the missing the person and of dad being gone. But it wasn't that, you know, like anything was lacking out of your lives or anything because you guys tried so hard to keep him connected to us and I remember emailing him and calling him and everything like that so that we could keep in touch. But I think it really did bring the girls of the family closer together, and more independent and, you know, maybe that is where we got that whole "we don't need a guy to do anything because we can do everything." We can plow lots of snow and we can fix anything that breaks in the house because we had to, you know.

MH: Because we had to.

KP: Yeah, so-

MH: Yeah, so do you think you're going to try to influence your son or daughter to go into engineering?

KP: Yes. (laughs)

MH: (laughs) Okay, that was straightforward.

KP: Well, I mean, probably just the whole pushing math and
 science, I think. You know I want him to do whatever he
 wants to do to be happy, but—and we'll see what he does. I
 mean, he's still little, but, you know, at least—

MH: He can count to two!

KP: Right, I know!

MH: And he knows A-B-C. (laughs)

KP: I know, he's a genius. (laughs) And all his colors.

MH: And all his colors. Yes he does. (laughs)

KP: But, you know, just at least exposing him to a whole range of things, including math and science, but you know, also the arts and music and dance, and political science or whatever, and English and other languages. Just so he gets a broad range. And I think you and dad did a really good

job with that and, you know, letting us try every sport under the sun until we found the one that we like. I want to do that with him, with sports and with education too. Let him decide what he wants to do and let him be his own person. And if he chooses the right decision of engineering, that's good (laughs).

MH: (laughs) The right decision of engineering.

KP: But if he doesn't it's okay. (laughs)

MH: Can we quote you on that? (laughs)

KP: But then that's okay if he doesn't, too.

MH: Okay.

KP: And the next baby to be.

MH: And the next baby to be.

KP: Yeah, so.

MH: Yeah, so that will be exciting too.

KP: Yeah.

MH: Well, I'm happy that you became an engineer. You know, I know your sisters didn't, but that's okay.

KP: Stephanie is kind of close to an engineer. She's in a technical field still.

MH: Technical field. And Mandy thinks from the different side of her head. (laughs)

KP: Yes, our teacher sister. (laughs)

MH: Yeah. But that was kind of cool too, though. That you guys are different but, you know, the same.

KP: Yeah.

MH: You know, because you have a lot of differences. You're all brought up the same and then to see the differences of where your careers went.

KP: I know. That really shows that it's genetics and not environmental, right? (laughs)

MH: Environmental, yeah. (laughs)

KP: There's your experiment for you.

MH: (laughs) Yes, three—

KP: More technical, there, nerdy. (laughs)

MH: Yeah, obviously. (laughs)

KP: There's your experiment.

MH: We have three data points. (laughs)

KP: (to recording technician) She did her experiment on her children. (laughs)

MH: Yes, I did. We brought you up all the same and look at that.

KP: See where you go.

MH: Well, like you said, though, two are in technical fields, and then Mandy in Special Ed.

KP: But you know, she still appreciates, and I think—I mean, she even wanted to be a science teacher, before she did special education.

MH: She wanted to be a biologist, yeah.

KP: Right, so she still appreciated the science and really liked it too, it's just she found her niche in special education, so.

MH: Right. And she's such a good teacher. You know, when I think about all the kids that she gets to help.

KP: Well, she just has the patience of anybody.

MH: Yeah, she really does, so. Okay. All right. So what do you want to do in the future? Where do you see your future calling?

KP: Oh man, I don't know. That's a really hard one, I think. Especially since I'm not technically in an engineering position. I'd like to maybe get back into an engineering position at 3M, but mostly I think my future—I just think about, personally, I just want to be like your dream for me. You know, I just want to be happy, healthy, a good person with a happy, healthy, good-people family and continue to go like that and be successful that way. Because, that's what really important to me right now, is my family and making sure that they're happy and healthy.

MH: Right. So I told you—well, I told you yesterday or the day before, what I wanted to be remembered for. What do you want to be remembered for?

KP: Just being a good person and being a good mom.

MH: That's cool.

KP: Yeah.

MH: And you remember what I said I wanted to be remembered for?

KP: Yeah, making a difference.

MH: To have made a difference. Yeah. To have made a difference in someone's life, or in a company, or something. But mostly in people's lives because people is really were it makes up. So that's cool.

KP: Yeah, well, I definitely think that you've done that. At least, I mean if nothing else, you know, Mandy, Stephanie, and I. But even with all your work, you know—especially when we were growing up, I cannot believe how much, like, community service stuff you did. You know, whether it was Girl Scouts or just our swim teams or any activity like that, but you also did, like, ambulance counsel and Lions Club back in the day, and all that stuff. It's like you did so much stuff, and so that you've already left your mark because look at all the stuff you've done.

MH: Well, thank you. Now you're going to make me cry.

KP: You were the first female Lions Club member (laughs) in our
city, so there you go. That's already—

MH: There it is. There's mine. (laughs) That's what I'm leaving behind, is being—

KP: So you can be a Lionette.

MH: No, that's—I'm not ever going to be a Lioness. I was a Lion.

KP: A Lion.

MH: (laughs) A Woodbury Lion.

KP: (laughs) So, you already know you've made that.

MH: Well, that's great. That's good.

KP: Well thank you for letting me talk to you.

MH: Well you're welcome. This has been fun. The time really went fast.

KP: And I love you very much.

MH: Well thank you. I love you too.

END OF INTERVIEW