



## Paula Hammond Oral History Interview, December 4, 2013

**Title**

“A Trailblazing Woman in Engineering”

**Date**

December 4, 2013

**Location**

Valley Library, Oregon State University.

**Summary**

In the interview, Hammond recounts her upbringing in Klamath Falls, her decision to attend OSU and study engineering, her social experience as an undergraduate and the challenges that she faced as one of only eight females in a civil engineering program of 120 total students. She also provides a detailed overview of her thirty-four years working for the Washington Department of Transportation, including her early field engineering assignments and her gradual movement through the ranks of various administrative positions. Her appointment and experiences as state Secretary of Transportation are discussed at length, with the evolution of her agenda, her dealings with legislators, her use of metrics and several memorable moments on the job included as highlights.

The final portion of the interview focuses on Hammond's career movements following WSDOT, her perspective on high-profile public works projects currently in the news, and her thoughts on the future of transportation, including the "driverless car." She concludes by offering advice to young women interested in pursuing careers in engineering.

**Interviewee**

Paula Hammond

**Interviewer**

Chris Petersen

**Website**

<http://scarc.library.oregonstate.edu/oh150/hammond/>

## Transcript

**Chris Petersen:** Okay, so if you would, please introduce yourself by giving us your name and today's date, and our location.

**Paula Hammond:** I'm Paula Hammond, and today's date is December 4th, 2013. And we are in Corvallis, Oregon. What else was I supposed—? [Laughs]

**CP:** That's perfectly fine.

**PH:** How's that doing?

**CP:** We are in the Valley Library today.

**PH:** We're in the Valley Library.

**CP:** Okay, so where were you born?

**PH:** I was born in Klamath Falls, Oregon.

**CP:** And did you grow up there?

**PH:** I did, and came to Oregon State in 1974, in the fall.

**CP:** What were your parents' background?

**PH:** My parents, Barney and Phyllis Cavanaugh, had grown up mostly in the Klamath Falls area, and they owned Smith Bates Printing Company, which was a commercial printing company that my brother Dan now owns and operates, a slightly modified business, but he and his wife run that today. My parents are deceased, and my—I have two other siblings, a brother Matt, and a sister Kate. Kate and Dan both came to Oregon State as well.

**CP:** And, are they older?

**PH:** They are older. My sister Kate graduated in the School of Pharmacy, and she's a pharmacist in Eugene. And brother Dan is the one who took over the family business and lives in Klamath Falls. He was in the School of Business.

**CP:** And where did you go to school growing up?

**PH:** We all went to the school that our parents went to, which was Sacred Heart Academy, and that school no longer exists, unfortunately.

**CP:** Catholic school?

**PH:** Yeah, 12 years Catholic school, yeah.

**CP:** How was that experience?

**PH:** It's great. It was a pretty small school, I was in a class of 32 people in my high school graduation class. But it was a very close-knit community, and many of those friends from those school days are still friends today of mine, so it's a nice local school.

**CP:** What were you interested in, growing up?

**PH:** As far as a career?

**CP:** As a child, what did you like to do in your time?

**PH:** I was the youngest of four kids, so I pretty much did as I was told. [Laughs] But we had a strong family network in Klamath Falls. We had ten cousins that all lived very close together, and many of them came to Oregon State. So it was great to have that kind of relationship with kin. And we were very outdoorsy, and laugh and tell our kids today that when the sun came up, we'd be told to go outside, and we would, and pretty much played outside all day. So, it's funny to see how the culture, and the world has changed today, where our kids tend not to play outside as much, so. But Klamath Falls was a great place to grow up, and had good seasons. Miss that now, living in western Washington. But it was a good place to raise a family, and live with other people who were in the same community, who had similar interests.

**CP:** Did you enjoy school?

**PH:** Yeah, I did like school. Sacred Heart Academy was very much a college prep kind of an orientation. And so our parents in those days were very involved in the school. It was an environment where, with the nuns, Sisters of Saint Francis were very disciplined, of course, but we also had great sports teams, and had a good time with all of those sorts of things. We played schools as a Single-A school, played other schools all over the state. So that was fun, and it was just a very active time, and I enjoyed school, and really did enjoy math and science, which is what helped me as I came into engineering here at Oregon State.

**CP:** Mm-hm. I was going to ask you about that. So how did that reveal itself? Were you just naturally good at it growing up?

**PH:** I don't know if I was natural—well, I must have had some foundation that was strong there. I enjoyed math and science. I wasn't the smartest kid in my class, but it was something that was expected, that we had a curriculum. We didn't have a lot of choices in school on what kind of classes we took, so we all took the same kinds of things. And my interest in engineering really came from my oldest brother, who had just graduated in civil engineering from the University of Notre Dame as I was graduating in high school. [0:05:00]

And I thought I wanted to go into nutrition, or something along those lines, and he said, "Try civil engineering. There's not very many women. There's a lot of jobs, and it's really easy." And so that was a lie. [Laughs] But other than that, it was something that I enjoyed, and it was difficult. It was hard for me, but it was something that really served me well in the end.

**CP:** Well, so he was an influence. Were there other mentors growing up, or teachers who were important to you?

**PH:** There were—when I thought about going into engineering, the person I identified most with was a friend of my father's, who was the County Engineer for Klamath County. At the time, I thought, "You know, that would be a fun job. That would be something." Thinking about transportation and the road system, and all of the things that he took care of in public works, was really something that interested me, but I really didn't know what I wanted to do with my career until I got through school, and started thinking about a job.

**CP:** There was a little bit of foreshadowing there.

**PH:** Yeah, yeah, actually. It turned out that way.

**CP:** That's interesting.

**PH:** Yeah.

**CP:** What sorts of extracurricular stuff did you do while you were in high school?

**PH:** Well, sports. I was on the basketball team, and on the track team, and I was a cheerleader, which also has served me well in my later career. [Laughs] But you know, I just—I can't really think of the kinds of things we did, other than just, we were typical American kids, and a lot of family interests and contacts.

**CP:** Mm-hm. So, by the time you graduated from high school, how did you make the decision to come to OSU?

**PH:** Partly because my two older—my siblings who were just a year and two years older were coming here. Oregon State had a good engineering school. We had visited here many times, and I even visited the home ec, which is where the Nutrition Department was, and thought about that during senior visitation. And I liked Oregon State, and I knew that math and science curriculum was something I wanted to follow, so it really was a natural place for me to come to.

**CP:** What were your siblings studying?

**PH:** Well, my oldest brother is a civil engineer, and then my sister is a pharmacist. And then my brother Dan, who's a year older, is in the business, took business and business management, or something like that; I don't know.

**CP:** How did you finally transition to college?

**PH:** Transition to college? It was not as difficult for me, since I was the last one at home, and my other siblings were all gone and out of the house. I was anxious to get to college, and I really enjoyed—when I got here, I got—I was in Finley dorm, and it was one of the newer ones at the time, so it was a neat place, co-ed dorm, to be in. And I also went through rush my freshman year and joined the Chi Omega sorority, so instantly had a network of people that I related to, and I think that helped make the transition easier, and a lot more fun.

**CP:** So, you lived in Finley for a year? You lived in the—

**PH:** In the sorority, yeah.

**CP:** —sorority house for the remainder of your time?

**PH:** Yeah, senior year we got to live in an apartment for one term, was all, but, yeah, that was fun.

**CP:** And that was by policy of the house?

**PH:** Yes, uh-huh. At the time, seniors could live out for one term, and then they'd come back in. And so you picked your term at the beginning of the year on how you were going to do that.

**CP:** Was that typical of all of the sororities, or was that—?

**PH:** Pretty much. At the time, the numbers worked out to the point where that was workable, because in order to have the house financially support itself, you had to have as many people living in it as you could, so. I don't know how that works today, if they have more members. Maybe seniors live out year round, but. That's the way it was in that, in '78, '77, I guess, was that year.

**CP:** So, tell me a little bit more about that. So the impact of the sorority on your life, or your experience there?

**PH:** Well, as a civil engineering student, it was a little distracting; I have to say. Most of my friends in the sorority were education majors, and some business, some accounting, some others. But we had study hall at night, so in the dining room it was always me who was up the latest. Sometimes my sister, who was also a Chi Omega, would be there as a pharmacy student. But not too many of our education majors were there. They would get their homework done quickly. [0:10:00] And I was there with my thermodynamics book, scratching my head into the wee hours. It was then that I learned to drink coffee, and that was very successful. [Laughs]

**CP:** I had a similar experience.

**PH:** [Laughs]

**CP:** Well, what were your first impressions of OSU when you arrived?

**PH:** Where I first saw it was when my sister came, because I was probably a sophomore in high school when I first came to see the campus, and I thought it was beautiful. For some reason, the fact that the buildings were so stately, and you could see the rich tradition and history on campus, and that it was a sense of place. I don't think I knew that term then, but I do now. And the fact that you arrive on a campus that felt very separate from the downtown busy street system; it was a

nice feeling. And it was something I looked forward to from when she came in '76, or excuse me '72, for when I graduated in 1974. We had been on campus many times between those years. So I was excited to start school.

**CP:** Mm-hm. And what did you think of Corvallis?

**PH:** I liked Corvallis. I think Corvallis—having come from Klamath Falls, Corvallis was about the same size, except that it had a very large college attached to it. But it always, as I lived here through those years, it always felt like Corvallis was really a college town that supported the university. And I think that made it a very welcoming place, no matter where we went in town.

**CP:** Mm-hm. No more four seasons, though?

**PH:** Oh, yeah, is that right?

**CP:** Well, that's what it—

**PH:** Oh, you mean the four seasons. I thought you meant the place. Yeah, well that's where I found the rain; you're right. This was the first experience of year-round rain. Yeah. I've never gotten away from that, either, in Olympia, so.

**CP:** So you started out in the engineering program and went through it from the start?

**PH:** I did. It took me an extra term. I was here through fall term of '78, when I should have graduated in the four years, in June of '78. I didn't ever go to summer school because I had the opportunity to work each summer, so that worked out well. And yeah, pretty much started and finished with most of the people that I came in with.

**CP:** Mm-hm. And now, talk to me about the curriculum a little bit.

**PH:** Well, as I recall, the curriculum, the civil engineering part didn't really start until I was a junior. And in those days, we didn't apply to get into the civil engineering school our sophomore year. We were in—if you were in, you were in from the start. And so most of my freshman and sophomore year were made up of general education units, things that everybody had to take, and then some introductory engineering, general engineering courses, which I liked. I thought, "This feels right. This feels good."

And it wasn't until my junior year, when all of the sudden it was all civil engineering, with—we were required to take an electrical engineering class, and some other things, but it was—that's when it all started to come together. And that was the term, the fall term of my junior year, when I questioned whether I was going to make it, because it was very difficult for me. And it was kind of a shock to my system, in that all of a sudden I was out of the general kind of courses where there were a lot of men and women, young men and women, and mostly men, so there was a whole another kind of an acclimation that I had to go through.

As a woman, there was probably eight women, out of, I don't know. When we graduated we had about 120, I think, as I recall. So, not very many women, and a lot of men. And, just the whole social—the connection between study groups and those kinds of things, I had to figure out, and so it took a little extra work. But it prepared me for my career, because it was that way through my whole career as well.

**CP:** So, 120 people in Civil Engineering?

**PH:** Uh-huh.

**CP:** Wow.

**PH:** Yeah.

**CP:** Big class.

**PH:** Yeah.

**CP:** So, I'm really interested in learning about the experience of being a woman in engineering at that time.

**PH:** Yeah, yeah. I had a few experiences where, and I don't remember which term it was, but one of the biggest things that I remember as a difference was a drafting class that I took, and it might have been mechanical drawing or something akin to that. [0:14:59] But the professor, elderly, very nice man, was describing to everybody—and we're waiting to hear what we're going to draw—and he said, "You know, it's like a piston. Just this and this, and it's like a piston." And I observed that all of the guys go, "Oh, yeah, right."

And I'm sitting there thinking [laughs], I don't know what a piston is, or I certainly don't know how to draw it. I knew what it was, but it was interesting. And he came over and patted me on the back, and said, "You know, honey, I know you grew up playing with dolls." And he wasn't trying to be demeaning, but that was his mindset, that this isn't kind of your world, and I know this is going to be hard, and nobody expects you to know what that is, so let me tell you what it is you're supposed to do.

And as I look back on that, I think, yeah, that's where this cultural, generational evolution really has happened. And I had to work really hard in that class, because so much of the drawing references were mechanical equipment, things I really hadn't been exposed to. And so it was an eye opener for me.

**CP:** Was that sort of attitude an isolated experience, or was it somewhat typical?

**PH:** I would say isolated. Part of what's helped me succeed is that I really don't take things personally and I have a good sense of humor, and I could see that everybody, in that generation especially, struggled with whether they needed to treat women differently, or specially, or just how to alter the way that—I'm sure that professor had taught class for 30 or 40 years by then, and it was unusual for him to have women in his class. So you know, it was probably the older professors where you would see some of that uncomfortableness, or just different teaching style, but it certainly wasn't—I probably wouldn't have survived had I felt that isolated.

The other thing that I noticed as a woman in engineering was that the guys in our courses typically gravitated together. Either they lived together, they were in fraternities together, or they just became quick friends and would gravitate towards study groups easily. And it wasn't until about my senior year, the fall of my senior year, when I noticed that people that I were friends with certainly seemed to always get their homework done, and easily, pretty much all came up with the same answers. And I said, "Wait a minute. What's going on? Are you guys studying together?" "Oh, yeah. We get together every, you know, twice a week," and had never considered that perhaps they should invite me.

So, I forced myself into the group, and said, "I'm coming, because I need the help. I need somebody to talk to as we work through problems." And they were very welcoming at that point, and it really did help me. So, interesting how they never even thought to ask me, and I never even thought that that's what was going on. And so it's just something you learn, and pick up on as you go, and figure out the team. The whole team process is something I think really helps people learn and get things done. So that was another moment where I went, "Okay, there's something different here."

**CP:** Yeah, that's really interesting.

**PH:** Yeah.

**CP:** It seems that group study's really fundamental to engineering these days.

**PH:** Yeah, yeah, and probably, it might have been then. It just wasn't much talked about, and if you're not really paying attention, and you're on the outside of the circle, you might not know what's going on.

**CP:** Did you have any connection with the other, the small number of women in your class?

**PH:** Some. We all pretty much came from different places. You know, there were a few that were older and had come back to school, I think, to pursue this degree, because they had some experience in the working world. And so we weren't walking in the same circles, I guess. But I did have an opportunity, and I think it was my junior year; there was a women engineering group. Women, from the Engineering School, from around the university, decided to charter a Society of Women Engineers club, and to have a chapter here on campus. And so I got involved in that, and that was

fun because I got to meet women from other disciplines, but still in engineering. And we chartered that first Society of Women Engineers chapter for the university. [0:20:00] And I don't know if it's still going on; I've kind of lost track of that organization. But it was kind of fun. Kind of gave me a sense of doing something that would make a difference for the long term.

**CP:** Yeah. I believe if it's not still around, there's something like it that's now out there.

**PH:** Yeah, yeah.

**CP:** Did you have a capstone project that you did as part of your—?

**PH:** We didn't have to do that back then.

**CP:** Or any sort of internship or practical application?

**PH:** I worked during the summers for the Oregon Department of Transportation in Klamath Falls. So that was nice. It gave me the opportunity to see the kind of field I was going into, and was highway transportation my interest, or did I want to pursue aviation, which is what my brother did? He worked for the Federal Aviation Administration for his career. Or, in those days, water? I mean, there was a lot of things kind of going on, environmental, and those kinds of things weren't as big as they are now. But it was an opportunity to say, you know, is highway transportation what I was really most interested in? And I liked it. I enjoyed being outdoors, and they threw me out on a survey crew, and the little that I could remember from my surveying courses with Professor Schultz, who I hear is still here, had taught me—it was kind of fun to put it into practice and see how the real world worked.

**CP:** And I expect this was mostly men, as well?

**PH:** Oh, yeah. When you think about survey crew, and construction crew, the stories I could tell there [laughs] about the differences between men and women. But what was most interesting to me there in the summer was, folks, they weren't really too happy having a college kid, whether it was a boy or girl, on their crew. I mean, it was one of those interesting moments where, "Come on, get in the truck, and you'll find out where you're going when we get there." And it was just a little orientation. That was good; it was good to go through. It was fine. They were not mean people; they were just not all that excited about having a college kid on their crew, particularly a woman!

**CP:** And you did that every summer while you were in school?

**PH:** Yeah, three summers, yeah, yeah.

**CP:** So over the course of time, I assume, you became a little more accepted by the gang?

**PH:** Oh yeah, and they had fun one summer when they told me to take one of the big crew rigs somewhere, and I didn't know how to drive a stick, so they laughed as I hopped through the parking lot. And you know, they all had a good [laughs]—they had a good time! But they were nice people, and it was a good experience, because when I went to work at Washington State DOT, it was the same thing. I mean, it was a very similar kind of an environment. So it was a good orientation.

**CP:** Did you have a job while you were in school during the school year?

**PH:** No, fortunately. I had my hands full with school, and our parents were great about making sure that we got through school with their help, and didn't have the burden of having to work.

**CP:** Any mentors at OSU, or teachers that made an impact on you?

**PH:** Some made an impact. [Laughs] I wouldn't call them mentors. I don't really—nobody stands out, other than what I remember most—I mean, unfortunately, I'm coming here from 30-some years ago, but what I remember most was Apperson Hall, and the sense of that was your home. And we spent so many hours in Apperson Hall that everybody who worked there was like a family towards each other, and very warm and encouraging to the students. If I ever felt

like I didn't understand something or needed help, they were always there. And so that was nice, to have that kind of an environment where you're not just a number, and that you had a building where you felt like it was a home base. Which, I think the school has grown since I was here, and I wonder sometimes if it's still the same. I look at the University of Washington, where I'm living now, and I just see so many students! And I wonder whether there's that kind of connection that I had and enjoyed.

**CP:** Yeah, I think it's Kearney Hall now, isn't it, Apperson?

**PH:** Yeah, yeah, they connected all those halls. I just drove around that as I came. And I came for the opening, and some of the early activities there, and it was really fun to see.

**CP:** Well, it sounds like you were pretty busy during school, and I'm wondering whether you had any extracurricular activities besides your sorority functions? [0:25:02]

**PH:** Well, I attended every football game. [Laughs] We were doing—we lived life to the fullest while I was here on campus. And it was fun because, I mentioned that I had cousins that also came here, that we had a pretty big network of friends, and people from Klamath Falls, and all got together around the sports activities. You know, it was basketball and football at that time. I don't even remember baseball being here, but now baseball's so big that it's fun to see how folks do, and how much there is. I have a friend who moved back here—he was in my engineering class, as a matter of fact—moved back here after he retired, and bought season tickets to every sports activity on campus. And he said he's perfectly happy living his life this way. So it's kind of fun to see how people stay loyal to the school. And I don't get to as many games as I'd like, but it's still fun to come back.

**CP:** Those were some lean years for the football team.

**PH:** Yeah, you had to be a true believer. [Laughs]

**CP:** What were your hangouts besides Apperson Hall, and the sporting at other places?

**PH:** Yeah, Togo's was—is that still here? It was the sandwich shop across from Apperson, was the place to eat lunch. And Murph's Tavern, we used to hang out down there. We had quite a few places where we would go out in the evenings, and went to the beach a lot. See, having been from Klamath Falls, you know, being this close to Newport was another thing that, once I finally got a car—my junior year was when my dad would let us have a car on campus—we would make a lot of trips over to the beach. And it just was an opportunity to explore that area. Didn't go to Portland much. I'm not sure why, I think we missed the boat on that, but did spend some time in Eugene. And our sorority interacted quite a bit with the Chi Omegas down at University of Oregon, so that was kind of a fun opportunity to meet other people. And so we were always busy. And then I had homework most of the time, so I had to pay attention to that, as well.

**CP:** I think by the time you were going to school, a lot of the campus traditions were fading away, but I'm wondering if there is any that you remember as being prevalent or important?

**PH:** Campus traditions?

**CP:** Like, was homecoming a big deal?

**PH:** Homecoming, yeah. Homecoming was a big deal. But mostly the game day it was a big deal, always, although I think tailgaters are a bigger deal now than—or else I didn't notice it then. But it seems like I spent a lot of time in the Memorial Union, just because. I was thinking about that as I came up here and looked at the library. And I think the buildings looked different, but I don't remember spending a lot of time in the library.

I remember spending a lot of time in the Memorial Union studying in between classes, and that was a really nice central place to not feel like you were in a cubicle, or in a box. But you could sit and study, and read during the day, so. And our sorority house was very close to Apperson Hall, so that was a nice thing, to be able to go home during the day and not stay on campus all the time.

**CP:** Yeah. Were there any locations on campus or around town that were important to you, that you remember?



**PH:** Important? I wouldn't say so. Other than, like I said, that the Memorial Union was a big place for us to be. I played intramural sports quite a bit, which was fun. We had a flag football team, and we had a basketball team, which heaven knows why, because I wasn't very good at it, but we decided one year. And it wasn't my sorority; it was my cousins and friends from Klamath Falls. We'd all been on our high school basketball team together, and decided we'd better do intramural basketball. And we weren't very good, but it was something that we made sure we kept active in, and connected in that way.

**CP:** So there were a lot of opportunities then for sports?

**PH:** Oh, yeah. It was big. Yeah, there was quite a bit. And I played tennis. I think I took tennis for my PE class at the time, and then that enabled me to keep active in tennis. So that was fun, too. [0:29:58]

**CP:** Were there any classes outside of engineering that you remember as being particularly enjoyable?

**PH:** Yeah, Geology. I loved Geology. And somebody said take it, because it's easy. [Laughs] It's an easy—and it wasn't, but it was really interesting to me, and I think growing up in the northwest, and just learning a lot more about geology, and different kinds of things, I thought that was really interesting.

The one class that I remember most, because it made me so uncomfortable, was the speech class we had to take. And I wasn't—I hadn't really been exposed to, in the school we were in, at Sacred Heart, we had to talk in class and things, but just the structure of having to put a speech together, and then doing a speech in front of people you don't know, because mostly I didn't know anybody in my class, in my speech class, was really stressful. And it's funny that I still remember that, because my whole career has been made up of speaking.

I mean, as I got into increasingly larger, more leadership type positions, I do a lot of speaking. And my kids comment that they would be mortified if they had to stand up and make the kinds of speeches I do now. But I keep telling them it's practice, and when you know your subject matter, and all of those things. But I remember that class, and how hard it was for me. So, I must have learned something. I hope I did. But I also remember how uncomfortable I was as a 19-year-old, young woman, having to put that kind of structure into my thought, and do something that made me uncomfortable, and that truly did.

**CP:** Yeah, that's interesting.

**PH:** Yeah.

**CP:** Well, it sounds like you were generally pleased with the Civil Engineering program, then?

**PH:** Mm-hm.

**CP:** And felt like it prepared you pretty well?

**PH:** Yeah, the engineering curriculum we had was very technically involved. And yet, I felt like—when I went to work in Washington DOT, I felt like I had the basics, and the background to put it into practice. I think now, schools and universities—and Oregon State is one that does—helps bridge that even more distinctly into the working world, with internships or capstone projects, or any of those kinds of things. But I felt like I had what I needed when I left Oregon State, which was, you know, was good. And I knew the theory behind what we were doing, and why we did it, and what made good engineering design, and those kinds of things. So that was good.

**CP:** So by the time you graduated, was there a specific interest you had, in terms of what you wanted to pursue in terms of your career?

**PH:** I wasn't sure, but the career center was very good about getting us ready for, and letting us know that different firms were coming onto campus. And I narrowed it down, and had several interviews in three different areas. One was Washington State DOT. ODOT had said, "Well, we'll offer you a job. We'll want you to work in Salem." And for some reason I had an attitude about staying this close to home, and thought, "Oh, I don't know. Let's see what's out there." So Washington State DOT, Proctor & Gamble.

And at the time, in San Francisco they were hiring a lot of Oregon State Engineering grads to be managers and foremen, and leadership kind of role within their facilities where they were producing different things. And so there was an Oregon State graduate who had left a few years before, and I knew him. And it was interesting, when they flew me down for an interview there, there he was, as the person that was going to shepherd me around, and introduce me to people and all of that. So that was kind of interesting. It wasn't at all what I had been studying, but it was something they wanted somebody with that kind of a mindset, engineering, logical, linear kind of a mindset, to run their companies, so that was interesting.

**CP:** Proctor & Gamble?

**PH:** Yeah. And then the Navy was on campus interviewing engineers for the Seabees. And wasn't sure I wanted to join the Navy, and in the end didn't. But it was interesting to have two recruiters sitting across the table, trying to talk you into coming into their line of work and joining that new discipline. So. [0:35:00]

**CP:** So how did you ultimately decide on Washington?

**PH:** I think I was most comfortable, having done the ODOT work, and Washington was just far enough away from Oregon and Klamath Falls that it made me feel like I was striking out. My brother, I mentioned was an engineer, was living in Seattle. My sister, by then, had graduated from pharmacy and was working in Eugene. And so just sort of knowing I had a network of family connections, and highway engineering really did kind of excite me, and I could see the tangible results of what you did very quickly. And so, I decided that that was a place I wanted to start out.

**CP:** And so where did you relocate to, then?

**PH:** Olympia, Washington. Wash-DOT gave me a choice, or at least asked me to prioritize my locations, and I had prioritized Seattle first, Olympia second, and Vancouver third. And I got my second choice, which was fine. And they put me in a field office, and started out as an Engineer 1, out, did a couple of things. I inspected asphalt plants for the asphalt content, and adherence to specifications. And then they had me on a survey crew. So I had done some of that in Oregon, and that was pretty familiar. But that was the kind of work they had me do early on. Now we call it grunt work, [laughs] but at the time it was—and they had not hired engineers.

Wash-DOT had not hired engineers for about 10 years because of budgetary slowdowns, and things that made it look like they weren't going to be doing a lot of constructing. So they just stopped bringing kids in from college, which in the end didn't work out so well, because you needed that kind of new blood every few years just to keep the work force energized and enthused, and growing.

**CP:** So there was probably a bit of a generation gap, then, between you and other workers?

**PH:** There was, and there wasn't any woman. I think somebody said, "Oh, we had a woman engineer once." And you know, this is the kind of environment that the '70s had. But there was about three women that I know; we all came in at about the same time, so. One was in Seattle, and I was in Olympia, another one was up on the Olympic Peninsula somewhere. So, not too many of us. And so the field office I worked in, which was a design and construction administration office, and surveying—they did a lot of pre-development work—they hadn't had a new engineer for 10 years, and they hadn't ever had a woman in their office that was not just the secretary or the administrative officer. So that was unusual for them.

**CP:** So how did you navigate that, and what was that like for you?

**PH:** It was odd, and it was—I had to couple that with being homesick. And, as a single 22-year-old at that time, in a community that I didn't really know anybody, and then to work in an office where, nice people, but older mostly, and most of their wives wondered, you know, who's this girl who's working in the office? [Laughs]

And so they were—many of them were very nice, but it was a very difficult first year that I had. And I questioned whether I would stay. But I'm a little bit stubborn, and so I did, and after about a year and a half I had an opportunity to join a new office they were forming that was to widen the Olympia Freeway, I-5 through Olympia. And it was going to be about a seven- or eight-year project. And they created an office of very young people. It was interesting now, when I look back on that, how that happened, but they hired a project engineer that was 40, and he then selected the team of people.

And in the end, there was about 60 of us when we got into construction, but it was a young group of mostly 20-something people that became very good friends, and many of them are still friends today. But that was where I spent a lot of my formative years in the department. And it got much easier, you know, the longer I was there, and got to know other people. And more women started joining the technical workforce, so it was much better after that first culture shock that I went through.

**CP:** Yeah, it sounds like a very fortuitous circumstance.

**PH:** Yeah, it did. Yeah, I probably wouldn't have stayed.

**CP:** So, I'm interested in a couple of things. When you first started working as a professional here, what was the learning curve like for you? Did you feel pretty well prepared, or was there some—?

**PH:** As I got out of school? No, I felt very prepared. [0:40:01] It was interesting that the department, even though it hadn't had young engineers for a while, did a nice job of exposing us to different kinds of things, whether it was construction administration, paying for loads of asphalt, and taking tickets, and working on the how to document your controls on those kinds of things, to learning what a spec book was all about, and how to make sure the contractor was building the project per specs. They eased you into it, and it was really nice, because one of my biggest fears was that somebody would say, "Okay, you're in charge" of something that I had never done before, but I got a lot of really good training in the department.

And I still remember the first project they let me design, and let me be responsible for putting the plans together for, and it was just a little left-turn lane. And I still drive by there, because I still live in that community, and my kids are tired of hearing me say, "I designed that!" [Laughs] But it was just kind of one of those—I think everybody remembers their first project that they designed. And so we learned a lot, and things don't always go the way you think they should, but I felt like I had the technical background. I just needed to put it all together into a real project, and make sure I could use all of those tools I'd learned.

**CP:** And how did all of your responsibilities shift as you moved into the second phase of your career?

**PH:** Well, I started in my career pretty much at the tail end of our product. I started in construction, so this is where the rubber meets the road, and where the asphalt hits the pavement. And then after I was in that office, and in the Olympia Freeway, we moved into design and right of way determination, so we did a lot of survey and right of way acquisition, then we designed the project. Worked on the construction of that, and rose in managerial and leadership, up to the point where I was the project engineer, at one point.

And then I went into our region and worked in the regional design, management of the regional design program. And then I moved into planning when the Growth Management Act passed in Washington, and we had to recreate a planning organization because we'd never had—well, for 10 years we hadn't. By then they weren't doing planning and community development kind of work. From planning, I went into program management, and worked on budget management.

So you can see me getting further away from engineering, but as I rose through the ranks of the agency, I was doing more of the organizational and upfront work for developing budgets, controlling and managing the budgets for different projects on a regional basis, and then helped work with the communities to determine what the highway system plan should have in it, to start with, what kind of projects are needed. And so all of that kind of kept me moving towards management and leadership positions.

And then I went into headquarters to work on the highway program for the state, and worked with the legislature on developing the budgets, and demonstrating the need for maintenance money, bridge rehabilitation and replacement money, highway money, and all of those things that related to the highway system. So all of the sudden, I had the responsibility to demonstrate how much money we needed as a state for those kinds of investments on the transportation system.

And then I went to work more directly with the cities and counties as they received federal funds for transportation, helped them—the state always had to administer the federal funds, and distribute to the local agencies, so cities and counties would get their federal money from us, and then we would help make sure they would deliver the projects the

way the federal government wanted them to. But that was really satisfying, because of the relationships, and this is where, kind of full-circle, I came back to the connection with county engineers. You know, the guy that I knew in Klamath County, I got to see upfront and work closely with those kinds of people to deliver projects that were important to them. So that was fun.

**CP:** So, back in the area?

**PH:** Yeah.

**CP:** Was this intentional on your part, to sort of shift more towards an administrative role, or it just kind of happened?

**PH:** No, as I moved through my career, I realized I didn't love design. I didn't love sitting at a drafting table, and the putting cards into the computer, in those days [0:45:00], and those things that were kind of isolating. As I grew in my career, I really started to enjoy the interaction with other people—cities and counties particularly, the planning organizations, on how we should plan for the highways and regional system, and then the legislature. And so my role started evolving more into being externally focused, and relationship-building with others, and development of more strategic plans.

And I think it was my forte. And sitting at a drafting table was probably not the best use of my skills, nor was I probably the most interested in that. But having not had the foundation of engineering, and having done all of those things through my earlier career, I don't think I would have been successful in being a leader in the agency that could relate to the kinds of products and services we were delivering. And so, I had a lot of credibility. It was probably one of the things most legislators said to me right out of the gate, was, when I became secretary, and I had—between working with local agencies, I was the chief of staff for the agency for six years, and then from there Governor Gregoire hired me to be the secretary when the other secretary retired.

And it was the credibility that folks felt that I brought to every conversation I had, because I knew what I was talking about. And so, having this engineering foundation, and the experience of 30-some years of work leading up—well, it was 28 years when I became secretary—but doing that kind of work for that many years on the same system, I think, was what really helped me be successful.

**CP:** You mentioned the cards and the computers.

**PH:** Yeah.

**CP:** I wanted to ask you about the technologies that were important to engineers in the '70s.

**PH:** Yeah.

**CP:** I'm sure it's quite different from now.

**PH:** Yeah. I should have mentioned, one of the other courses I struggled with was Fortran. [Laughs] Never did understand that. But yeah, we did not have desktop computers when I started at the department. There might have been one or two in the office. But mostly we had a mainframe computer in a room, where, once you got your cards lined up, you would feed them in, and then out would spit rows and rows of numbers and data. And so design of a highway back then was very different than it was today.

I remember that when we had to do our right-of-way purchases on I-5, and while we were designing the widening of I-5, and all of the bridges that went over and under, as we laid out the alignment of the interstate—one of the prevalent things to know about the interstate system is it's mostly designed on spirals. And so it isn't just a simple curve that would take you from one, you know, turn to the next. It was a spiral that got tighter as it went. And we all looked at each other, and said, "Who knows how to figure out tangents to spirals?" And you know, all of this. And we're all kind of scratching our head laughing, because that was something we learned about, but one really smart guy, who had been the valedictorian of his engineering class somewhere else, he said, "I want to do this." And he just really thought that was the most exciting thing, was figuring out—and he did it by hand. Or, I don't know how we did it, but it was really funny, because nowadays, what? You put a few things into a computer, and you get the answer. But that was an interesting experience.

Another thing we did that we don't do anymore is when you're figuring out your earth work on a highway, an excavation, or a fill, you would lay out your cross sections every 50 feet after the survey crew got all of the data from the field, and then you would draw it. You would draw every 50 feet on a giant piece of paper. And one of my early jobs was to bug the cross-sections. And there was a thing with an arm, and a little pen, and you would trace around, and you would calculate the square footage, or the area, the cubic yards of that cross section, and then you would go to the next one. And then you'd run a computer analysis to figure out how much earth work you were going to have, cuts and fills.

And so one of the jokes I always used with our young engineers, as the years went on, was, "Well, hey, I'm really good at bugging cross-sections." [0:50:01] And as the years progressed, they were all going, "Uh, what is that?" [Laughs] Bugging cross-sections? So it's interesting to think about how much more productive engineering design and field work is today, because computers just totally changed how that's done. And I was fortunate to be able to see that transition, as we went through the last 30 years. Who knows what will happen in the next 30 years?

**CP:** So in 2007, you were named Secretary of Transportation.

**PH:** Yes.

**CP:** What is your memory of how that all came about?

**PH:** Well, I was a little irritated at the governor, because she felt like she needed to do a national search when my boss retired. And even more irritated, that she made our department budget pay for that national search. [Laughs] So, but anyway, we've laughed about that since. I didn't really know Governor Gregoire. I mean, I knew of her; she had been in state government forever, but. She had been the Attorney General before she became the governor in 2005.

But I had to think pretty carefully about whether I wanted to be the secretary, because it would have been my last stop in my career. It was an appointed position, it was more political, and was subject to changes in governors, and something that, when you're a career employee and you get all the way up to the top civil service job—and I was in that as the chief of staff, who was essentially the deputy to the secretary—I had to think long and hard about whether I wanted to take that risk. But I also knew every step of my career as I was an Engineer 1, and I'm thinking about, do I want to be an Engineer 2, and what job would I want? And I'd look at the Engineer 3, and I'd say, "I could do that job!" So I was always looking ahead, a few jobs ahead, and I always felt like I could do a good job, or even a better job than whoever was sitting in that chair.

And so I kind of felt like I'd be copping out if I didn't attempt to be the secretary, and I felt like I could do a good job. So, after talking it over with my husband, because it was such a huge commitment, and we still had kids in school, we decided, what the heck? Let's go for it. And so after Governor Gregoire's—her firm that she hired looked around the country, and she interviewed quite a few people, or several people at least, by the time they were done, she called me up, and she said, "You know what? You are the best in the country. You're the one I want," which was wonderful! And I could have told her I knew that, but [laughs] I didn't know her that well! And so that was 2007.

**CP:** So, was there an actual interview with her?

**PH:** Oh, yeah. Oh, yeah.

**CP:** Wow. How was that?

**PH:** It was tense. It was good. I mean, I had been around so many different legislators by then, you know, and testified in front—those, I didn't get real rattle with that. But it was interesting. Now that I know her as well as I do, and we became tremendous friends over that five, six years, I kind of laugh, you know, at the kinds of questions she was asking me. But she was very good. And she's the kind of person, if you know her—some governors are pretty hands-off; she was very much a detail person. And her and I joked over the years that she would say, you know, in a meeting, "So what was that? How much was that project going to cost?" And I would say, "It was like 42 million." She would say, "No, it was 47." And I would laugh and say, "Why are you asking me, if you know these numbers better than I do?" And she just had that mind for detail.

So she was really a fun partner in delivery of the big program that we had to deliver, and she was very good to work for. But she was definitely a hands-on, I hesitate to say micromanager, but she definitely knew what was going on in her agencies. Some governors aren't that way. And so, she was the kind of governor that you worked hard for, and every one of us were proud to serve her because she worked harder than all of us.

**CP:** So, my sense is that the chief of staff position sort of prepared you for this?

**PH:** Yeah.

**CP:** In the sense that you were ready to take on a huge amount of responsibility, large budget, a lot of subordinates?

**PH:** Yeah. Yeah, the secretary who came in, that I was chief of staff to, had come from Massachusetts. And he had grown up in Washington, and then left. He was an attorney, but he had been real active in Massachusetts, the water resource authority. [0:55:02] And they had cleaned up Boston Harbor and done a lot of work there, and so he was very involved in delivering a large capital program. And he was really involved in performance measurement, and performance management, which was kind of a different—back in, that was 2001 when he came, and that was sort of a new thing.

The whole accountability, performance measurement—all of those things hadn't really hit our area, and government, I don't think, in general. So he looked around, and when he came, I had the opportunity to be on the interview panel. They had asked one employee, which they asked me to come—the commission, we worked for a commission at that time—to be on his interview. And he and I connected very well at that point. And he said—when he heard he got the job, he said, "I need help. I need somebody who knows everything there is to know about this agency, and I think it's you." And I said, "Of course it's me."

So [laughs] he and I had a great partnership and relationship, in that he didn't really want to run the agency day-to-day; he wanted to be the big picture, help us change our culture, and do some things more around communication, and product delivery, and accountability. And so I really did have a huge involvement in, and responsibility for, the day-to-day operations of the agency, which was great because it was a great training ground for me.

**CP:** So, once you assumed that position of Secretary, I guess I wonder if there was ever a moment where it ever just hit you that you had arrived at this point?

**PH:** Yeah, there was a moment. It was August when I—well, there was two moments that year. He retired, Doug McDonald retired in July, and on August 1st I took over as Secretary. And on August 1st of 2007, the Minneapolis bridge fell down, I-35. And I was in the governor's chief of staff's office when somebody ran in—this was my first day as the secretary—ran in and said, "A bridge just fell down in Minnesota! Turn on the TV." And so we did, and were watching cars in the river, and a bridge collapsed, and that was the moment when I knew: the buck stops here.

And I knew that I had two or three hours to be ready to talk about, would a bridge ever fall down in Washington? And what happened, and what did I think, and what's the status of our bridges, and what's the condition of our bridges? So, that was a moment, and it worked out. I mean, our bridge engineer and I prepared. We sat up, online, because we put all of our performance data online, and had a really robust performance and reporting accountability site. We knew—we looked at everything on our bridges; we knew if there were bridges we were worried about. He and I talked about it.

We went to Seattle at 3 in the morning. From Olympia, it's, you know, about an hour drive to get all of the morning news shows. Because that's all they wanted to do, was talk to somebody about the bridges in Washington, and the condition of the bridges, and why would ours—do we have those kind of bridges, and would ours fall down, and are you worried about bridges? So fortunately, I'd had enough experience to know exactly what I needed to do. But it was a moment.

**CP:** And that was your first day?

**PH:** That was my first day.

**CP:** [Laughs]

**PH:** Yeah. And then my second moment was, we operate and own the Washington State Ferry System, and it was November, mid-November when—well, we'd been plagued all spring and summer with cracks in the hulls of our very old boats. We had 80-year-old boats, and the legislature was refusing to fund them, new ones. And so we'd just been limping along with these. Well, we've got a crack, whatever; we've got to replace this. And I'd asked our ferry vessel engineers to map the cracks, to get in there, get in the hole, get the concrete out, because the ballast is always in the bottom of the boats, and really understand what the crack situation was.

And they called me up. It was like three days before Thanksgiving, and we had a meeting set. They said, "You need to come look at this." And they rolled this big thing out, which was the hull of one of the boats, and it looked like spider's web. And the cracks in the hulls were prevalent throughout. And they all kind of looked at me, and I said, "This is not good." And they said, "No." And I said, "We've got to pull the boats. [1:00:01] We've got to pull the boats. Stop. Park them." And I said, "I'd better go make some phone calls." And I called the governor, and I said, "I've just pulled four boats from service, and I need you to know that." And she said, "Wait, wait, what? Tell me exactly what's going on."

And we talked about it, and she's asking me questions like, "Well, who would we need to talk to if we were going to not have service?" And I said, "No, wait a minute. You need to understand. I'm not asking you if I can pull these boats from service. I've just pulled them from service. Now we need to figure out who we need to talk to." And she said, "Yeah, that's right." And she tells that story. It's interesting, because she said, "Paula was making it really clear she wasn't asking my opinion, but that she was telling me something." And she said, "Because I hired her as an engineer, I valued her opinion. And I value her expertise as a civil engineer to tell me what needed to happen."

And nobody ever criticized me. A lot of people criticized that it happened two days before Thanksgiving, and all through the holidays. These ferries served communities. One of them had no boats, and so they weren't land locked, but they had a huge Christmas shopping group that, you know, they were always—that was a big part of their economy, and they lost that service to this other community. And so a lot of people took a long time to figure out what our plan might be, but nobody ever criticized the fact that, for safety of the travelling public, and our crews, that we had to stop the boats.

But that was a pretty big burden of responsibility and leadership that I just—you know, I didn't even hesitate, and I don't know why I wasn't more afraid of that decision. But to me, it was the only thing I could have done. So I knew then that the buck stopped there. I spent a lot of time talking to people about that, and just trying to figure out a plan when we had lost some pretty significant service.

**CP:** What else was on your agenda over the course of your time?

**PH:** Well, we were fortunate in 2003 and then in 2005; we had gotten revenue increases from the legislature to build a 16 million dollar capital program. So even through the previous secretary, we were on a huge delivery of these projects. There was 421 projects around the state. Some of them were really significant megaprojects, like the Alaskan Way Viaduct, a deep ore tunnel that's under construction now. We had to work on what that design might be and what the solution would be. And then the 520 Corridor that goes across Lake Washington. We had to replace that bridge. Interstate 405 needed to be totally redone and widened. Highway 18—I mean, every real—when you think about Puget Sound, every urban roadway had something to be done with it, because we had a long dry spell before that, were we hadn't invested for quite a few years in megaprojects and big projects.

So, it was really about project delivery from about 2003, on. And it was making sure that as the recession hit, and the budgets were getting strained, and the revenue wasn't coming in, how to manage, and move through this program in a way that met the legislature's requirements for on-time and on-budget, keeping traffic moving while you're constructing, and just holistically managing this pretty complex system. So we did a lot of that.

**CP:** Yeah. What did you notice about your job or yourself that changed as you grew to these figurehead positions from being a chief of staff? I assume it was less hands-on and more grander vision, or interacting with the governor, interacting with legislators?

**PH:** Yeah. I think the people that worked for me would tell you that I didn't back off on details. [Laughs] So, while I make fun of the governor for having been a detail person, I was very much the same way. And you know, I think it was

because I'd done all of these things, and I knew so much about budgets, and project delivery, and risks, and the things that could bite us, and all of the things that needed to be done, that I was very much a hands-on person. So I juggled it all.

I look back, now that I stepped away since March, and I'm not the Secretary. I wonder how I did it. I mean, I would tease my administrative assistant that there were times she forgot to schedule a bathroom break into my day, and could I please just go to the bathroom? [1:05:01] It was those kinds of crazy schedules that we maintained because we had to. And I'm a person that doesn't want to forget something that should have been done, and I don't want—I have very high standards for myself and the people that work for me. And yet, we had worked together for so long, and we had such a strong team, that everybody was pulling at the same kind of weight. And so we were really rolling, you know, as far as a management team.

And there were things that I wished I could have done better, or taken more time to be more strategic on certain areas, or you know, any number of things. You wished you had two heads and four arms, and all of those kinds of things, but by and large, we did what we set out to do, and that was to deliver a really significant amount of projects, and to deliver the benefits that we promised, and to deliver on time and on budget. And so it was pretty fun. I loved that job.

**CP:** So what did a typical day look like for you?

**PH:** Well, one of the things that I tried to protect in my family was that I got to take the kids to school, before they all started driving. Our last one just started driving, so. But I'd like to drop the kids off at school because that was my chance to, you know, talk to them, and find out what was going to happen that day. So I'd get to my office about 8:00 or 8:15, and usually have a lineup of people at my door, or a meeting starting, and pretty much people came in and out of my office all day long.

Or, if I was going to go to Seattle, I would be attending other meetings. I was a member of the Sound Transit Executive Board, the regional transportation System, and I was on other boards, funding boards, and safety boards on the state, so a series of meetings pretty much all the time. Every once in a while I'd get to sit down at my desk [laughs] and look at the 200 e-mails I'd get a day, and try to make some sense of, you know, sending things out to get answers to.

But it was pretty hectic, but very fulfilling, in that we had a very strong communication team, and we were very strategic about how we interacted with the legislature, and how we talked about the work we did, and how we kept very open access with the media and others, who really wanted to know how their tax dollars were spent. And the more I could personalize and humanize myself, and be accessible to anybody who wanted to talk to me, I think it really helped humanize the agency. And so I worked really hard at that part of it.

**CP:** It must be difficult for somebody in your position. When people think about traffic or transportation, it's usually a negative. They don't think about it when it's just fine.

**PH:** Yeah. Yeah, it's invisible, isn't it? Until it doesn't work.

**CP:** Yeah.

**PH:** And so, it's interesting. I've thought a lot about this, that as we have become so accustomed to our transportation system and our utilities, whatever it is, working well, until they don't. That's what you notice. And everybody's an expert, because everybody drives. And everybody sits in traffic, and notices a light that doesn't change as fast as they think it should, or a dirty sign, or whatever. And so, it's interesting. But it's a good challenge to have, because I think there's a solution out there, if people can have the courage to have the courage to do what's necessary, and make some investments that are going to really reap benefits. But none of us pay what we should to use the system.

So I've been on this mission. I've been on a mission lately to try and convince folks, whether it's Congress or state, our state legislature or others, which the transportation system should be paid for like a utility, and that user fees are what really should pay for your transportation system. And so things like mileage-based user fee, that you hear a lot more about now in Oregon, is in the forefront of that. How to pay for the system that you use, and fully pay to maintain and manage the assets, and improve them where you want to improve them, and then operate them well. And work it as a system, not just build highways.



We learned in college, you know—you have a problem? We can fix that; we're engineers. We can fix anything! If you can build it, then you're going to fix it. And we figure out these strategies, but now it's gotten so much more complex. [1:10:00] And there's not enough money to build everything we want to build, so we have to start thinking about how to use the system we have better, more efficiently, and operate it, manage some of the demand, and work between highways and transit in a way we never had to before, never thought about doing before, and figure out how to move people.

So it's an exciting time, and that was what I worked hard at, was to try and help people imagine the possibility of what we could do. And we're starting to get there in Washington, so I'm pretty proud of that.

**CP:** One of the things that emerged in our research on you was your use of metrics as a manager. Can you talk a little bit about that?

**PH:** Yeah. Yeah. When the previous secretary came, he was hired with the mandate of accountability: bring accountability to state transportation. And what's interesting, having been someone who was there forever, was we always delivered projects well. We delivered them mostly on time, but we didn't talk about it. And we didn't measure that as something that we graded ourselves on, or that we showed anybody else.

So this whole transparency in government, and how to demonstrate the use of funds, was something that Doug McDonald brought to our agency, and then how to talk about it. So when he started, we started a reporting system called the Grey Notebook. And don't ask me why we called it grey, except that asphalt's kind of grey. [Laughs] We weren't very—we're engineers, right? We're not very creative. But the whole notion was to measure the performance not only of the system, the transportation system—what's our safety statistics? What's the condition of the pavements and the bridges? And how well—what are the travel times, and what's the delay on freeways?

But then, let's measure ourselves. How well do we deliver a project? How well do we recycle the materials that we're building? And we started finding more and more ways to manage the agency by managing the outcomes and the benefits in the work that we were doing, and our products. So it really came into this whole notion of performance management, and we don't just measure it and admire it; we learn from what we see. And why are our pavements' conditions going down, when our spending's going up? Fortunately, that didn't happen. But, why does this look the way it does?

And so we spent a lot of time managing the agency by the statistics, and the data, and the outcomes that we were seeing. And we were also fortunate that our legislature, very interested in where the dollars are spent—that caught fire with them. Governor Gregoire had her own kind of a measurement system called GMAP, Government Management and Accountability Program, where every agency had to come in and talk about key performance measures. And so, we feel in Washington very prepared now that the federal government is getting excited about performance management and performance measurement.

We were way ahead of the curve, and had been doing this every quarter for, now, 13 or 14 years. And so it enabled us to be able to be ready for demonstrating how performance management and performance measurement and reporting can help enthuse legislators into feeling like you're doing a good job. So it really built our credibility up as an agency, and it also helped them know, if they're going to put more money into safety, for example. We said, "Look, if you can just give us money—not a lot of money—but it's money to put in cable barriers, the crossover fatalities that we have on our medians will go down dramatically." And we knew that from looking at what some international systems had done.

And then we put these systems in, and then we measured it, and we were able to report and demonstrate the drop in fatalities from crossover median accidents. And so, once the legislature really caught, captured, the notion that they could see real results from what they were investing in, they got very interested. And I think it helped them believe more in data and reporting than perhaps they would in the beginning.

We also used our performance measurement and reporting system to talk about things that didn't go well, because in fact, you've got to tell the good and the bad, whereas there were some people who were inclined to say, "Don't talk about that. That didn't work out so well." But we felt strongly that you don't have credibility if you don't tell the bad with the good. [1:15:01] And so that was a big part of a culture change that we had to make sure our employees were buying into.

**CP:** That sounds like a big achievement of your time in office.

**PH:** Yeah, it was good. It was fun. And I think it set the standard for how other state DOTs are reporting on their system. So that's kind of fun to know you have a legacy.

**CP:** Yeah. Are there other achievements you look back upon with pride like that? You talked about delivering this large amount of capital projects.

**PH:** Yeah. I would say that the delivery of the program was a really big part of what we did, because we were also doing it on a time basis, and a price basis, and so just good management of those projects was really important. We had very strong partnerships with our contracting community, and that relationship, because it was good, it minimized claims, and antagonism that sometimes can happen between an owner and a contractor. And so we had a really good, I would say a good, enterprise between the state and the contractors delivering those contracts on time.

The other thing we did in Washington while I was in that area was we instituted—well, we got back into tolling. I mean, back in the '30s and '20s, we did tolling on our bridges, but it had all fallen away, and it was all paid for. Anti-tolling people got rid of tolling. But the Tacoma Narrows Bridge, in 2007, was the first bridge that we reinstated tolling on. The 520 corridor was the first bridge and corridor that—in the country—that went through all-electronic tolling. In other words, no cash exchanges. So now, everybody's starting to do that, because it's really inefficient to collect money at the booth.

And then we also were in development, and had opened our HOV system to high-occupancy toll lanes. So we were allowing people to buy their way in, using the transponder to pay a toll. So we were starting to—and this is continuing—deliver and develop a managed lane system, which helps—when I talked about having the efficiency in the use of the system, we're actually now getting that put into practice. And so we're able to manage the demand, and use the lanes we have more efficiently and effectively. So, I think we pushed that over the top while I was there, and got that underway, and it's going to just continue to grow in Washington.

**CP:** How were you able to balance your family life with this job that had such demands of your time?

**PH:** Only because my husband did such a good job of supporting me. He's a land surveyor himself. He works for Fish and Wildlife, but he had a job that was flexible enough that, when I had to be on the road or I had to travel, he was able to pick the kids up, or take the kids to school. So that really helped. And we're fortunate that our kids are pretty low-maintenance, from that standpoint. We have three kids, and two of them—let's see, 2007. My son graduated high school in '07, so he was the first to go off to school when I became secretary. And since then, I have a daughter who's a senior in college, and now a junior in high school is left at home.

But it was tough. I didn't cook a lot of dinners. We had a lot of, "Okay, I'll stop on the way home at 6 o'clock or 6:30. Can I stop at Safeway? Do we need something?" And so, usually by the time the weekend came, even though I always had my cell phone in my hand, because that job never ends, and things happen on the weekends. We didn't really relax for about five years.

**CP:** Well, you stepped down from that position in February of this year, 2013.

**PH:** Uh-huh.

**CP:** What are you up to now?

**PH:** Well, I took six months off, and told all of the headhunters who called that they couldn't talk to me for at least three months, which was really nice. It took me a few months to realize how much stress I'd been under, and the further I get away from having done that job, I wonder, how did I do that job? How was I on all the time? But, it was really nice in that I spent that six months doing things around the house. It was spring, and I thought, "Oh, I'll take three months off." And then when three months came, I thought, "Summer! I'm not going back to work." [1:20:00]

And I started exercising again, and I really took care of myself, which was kind of fun. My husband started smiling in February, and hasn't stopped smiling since. He loves the fact that we are where we are now. And so after about four months, I started talking to firms, and a lot of engineering firms were interested. It's great when you've been the CEO of a state agency like Wash-DOT. You're very much in demand, and attractive to outside firms.

And a lot of folks wanted to put me back into the grind of being responsible for west coast this, or build a practice here, or do this, or do that, or run this, run that. And I really wanted to pause from that. I said, "I want to work. I still want to do the kinds of national policy, and relationship building between state DOTs, and supporting state DOTs with whatever I can offer them, but I don't want to run a company. I don't want to be responsible for the delivery. Right now, I just want to take a break."

And Parsons Brinckerhoff, which is the engineering firm that I now work for, said, "Great. This sounds perfect. You know, tell us exactly what you want to do." And we started our negotiation there, and so in September I joined Parsons Brinckerhoff, and my title is Senior Vice President responsible as a national transportation market leader, which is perfectly vague [laughs], and wonderfully enabling.

And I pretty much have the ability to help the company, consulting both internally with the company and employees on how clients see things, and what state DOTs want, and what they need, and how consultants can best serve them, and helping other state DOTs or national associations in developing their transportation goals and strategic plans. And working with USDOT, where I have a lot of friends, still. So, it's really a nice place to be.

**CP:** I have a few more questions that are sort of topical. I'm interested in your thoughts. When you think about the future of transportation, what occurs to you, in terms of maybe what you think will happen, and what maybe should happen?

**PH:** Yeah, I'm pretty opinionated, so I kind of blend the will and should together. I kind of hinted at where I think we're going. I've been working hard, and I think where we really need to go, if we're smart, we being the royal we, including our legislators and the policy enablers, but we have to run our transportation system more as a system, and it has to be integrated between the transit capabilities, and the people-moving capabilities, and the highways. They have to work seamlessly. And right now we all have our own little pots of funds, and we all worry about who can do what, and who's got what, and you have to do that, and I can't run this.

We've got to get rid of some of these jurisdictional lines, and figure out how to operate the transportation corridors in a way that they're most optimum and efficient. And that means that everybody needs money to do what they need to do, but between light rail, commuter rail, express bus service, bicycle corridors in communities, and the ability for people to walk safely throughout a city or community, and to get from here to there, all of that has to come together. And my ferry folks would say, "Don't forget the ferries." But it's a transit agency.

You know, any of these transit services have to blend well with the hard infrastructure, and be able to use that infrastructure like a highway corridor, so that it's optimized. And I think that we're getting there in Washington. We kind of see the light. Oregon's got some great plans. We, Oregon and Washington together, are jointly operating the Amtrak Cascades program, and doing it in a more coordinated way than we ever have. So the Eugene-to-Vancouver, B.C., corridor is one that's just going to continue to grow, and become more of a viable alternative. So, that's exciting to me.

But I think we have to fix the way we pay to use that system, and we have to look at it differently. Gas tax is just a flat tax, pennies per gallon. It doesn't grow with inflation. It loses value every year as inflation grows. And now the more electric vehicles we have, the Priuses, and hybrids, and other things, the less people pay to drive a mile. And the system's not going to be able to sustain itself. So I think we're kind of moving to a place where, if you can price it accordingly [1:25:00], and people are starting to understand that these corridors aren't just to move people, but they move through communities.

We draw circles a lot, and we're thinking a lot now about what they call the triple bottom line. You try and create a solution to something, but you think about the economy of it, moving people and goods, and the environment, and what kind of a footprint that leaves on the environment, and how you leave that better than where you came, and then how the community thrives, and how you build a transportation system in and around and through a community that helps it grow. And we need to do that.

We see a lot of scars through communities, at least in Washington, and I think Oregon's probably the same way. When the interstate system was built, we severed a lot of towns. The town I live in, Tumwater, they're still complaining, after 50-some years, about when the freeway split the town in half. And they're still trying to recover, because their sense of community center is not there. They've had to try and rebuild it. And so I think we're a lot smarter, and I think

there's a footprint, or at least a roadmap—pardon the pun—of how we can improve the transportation system that helps communities thrive, and the economy, and keeps the environment healthy. And living in—having our livability the way we want it, in the Northwest, at least.

**CP:** What do you think of the development of driverless cars?

**PH:** Oh, the autonomous vehicles. I like it. I think it's a ways off, but I've been able to be involved in a USDOT committee, an advisory committee, on, it's called the, let's see—ITS, Intelligent Transportation System committee. But we're advising USDOT on not just the autonomous car, but on vehicle-to-vehicle communications, because for them all to be truly autonomous, vehicles have to talk to vehicles; vehicles have to talk to the infrastructure—think traffic signals and road lines, and fog lines, and ditches. And these things all need to have this communication system so that they can keep people safe.

And so federally and nationally, folks are thinking about how's this going to work? When the auto makers put in more and more features for safety, how vehicles can connect with other vehicles, and know that the guy two cars ahead just slammed his breaks on. You know, how all of that works, and how the government should or shouldn't regulate it, is a really interesting topic. And so I am excited about it. I think it's just—it's going to be the future.

**CP:** So you think that, perhaps, your children will live in a world where people don't drive very much? Their cars drive them instead?

**PH:** I think that they could. I think that it could happen. More and more, you're going to be in a vehicle that will not only park itself, but tell you there's somebody right there, or tell you that the light just turned red, or somebody just slammed on your brakes. You know, I think there's going to be driver interaction for a while.

**CP:** Mm-hm.

**PH:** But look at how far it's come already, from the days that I hopped through the parking lot of the Oregon DOT [laughs] because I couldn't drive a clutch!

**CP:** Well, you referenced the collapse of the bridge in Minnesota. In May, 2013, that there was an incident where the Skagit River Bridge collapsed.

**PH:** Yeah!

**CP:** We were interested in your perspective on that day.

**PH:** Yeah. That was interesting, because I was not working by then. I was not the secretary, and yet when somebody called me, and said, "Do you know what just happened?" I was just horror-filled, first of all to think that somebody might have died. They were so lucky that nobody was killed. Now, jokingly, I've said since then, "That bridge was fine when I left."

**CP:** [Laughs]

**PH:** But in reality, it wasn't because the bridge was in bad shape. It was because of an oversized load that hit a bridge that wasn't very big. And so all throughout the system, there's bridges that are known as functionally obsolete, and it's because they aren't equipped or sized for the kind of traffic that we have today—narrow shoulders, short clearances, and those kinds of things. And that's, in fact, what happened. But my brain kicked into gear, and I started making phone calls, and reaching out to say, "What can I do? How can I help? Have you thought about this? Did you think about that?"

And of course, Wash-DOT, that agency is so experienced, and we have people—I'm not unique to have spent a 34-year career there. [1:29:58] And I think this is the way a lot of DOTs are; people start there and end their careers there. Oregon's the same way. But we would shine best in a crisis, quite frankly, because everybody knows their job, and emergency operations is a way of life, especially in the Northwest, with floods, and avalanches, and slides, and everything that we go through. And so they did exactly what they should have done, and responded, I think, just really well. And I was very proud of them.

**CP:** Another subject I'm sure you had some involvement with, for better or worse, was the I-5 Columbia River Bridge.

**PH:** Ah.

**CP:** That's come and gone again.

**PH:** Yes. I spent 10 years of my life personally trying to get that bridge to be replaced.

**CP:** Any insight into this project?

**PH:** I'm very sad that the Washington Legislature decided that they didn't want to fund that project. I actually am still having conversations with folks, because now that I'm in the consulting world, you know, it doesn't take away my passion for good transportation on the Washington system. I'm disappointed that we got it so close, that it fell apart. I think some of the legislatures took advantage of the administration change to throw their weight around, quite frankly. And it's really disturbing that we had spent so many years, with so many people working to advise, and create, and shape the project that we had come up with, and gotten a record of decision for, that those who came late to the game felt like they were uninformed, and you know, should have known more, and why didn't we tell them more? My common response was, "Where have you been for 10 years?"

But in the end, a project that was designed, or the construct was to have really, truly a multi-modal transportation bridge, which is exactly where we're trying to go, as I mentioned, through corridors: a bridge that would have great bike and pedestrian facilities between Washington and Oregon, and the two urban centers, and light rail and highway lanes that would serve both of these international ports on each side of the river. It was a perfect solution that had been very carefully negotiated, to have johnny-come-latelys decide that we just don't want that. "Well, we'll take the bridge, but we don't want the light rail." To me, it was the most disappointment I could have seen.

So, I'm hoping cooler heads will prevail, and at some point that bridge can get built, because it is vulnerable. It's old. I told my friend at ODOT today, as I was driving across it, I was trying to drive really fast across that bridge, because I know which bridges are vulnerable in our states. [Laughs] So I don't want to spend a lot of time sitting on an old bridge. But, anyway, I don't know. I'm hoping.

**CP:** That's good for me to know.

**PH:** Yeah. The north-bound's the old one.

**CP:** The last thing I want to ask you is, what kind of advice you would give to girls or young women who are thinking about beginning engineering as a career?

**PH:** Well, I've spent a lot of my career mentoring young women, particularly, in our agency and in other places. And I'm active in a national organization called Women's Transportation Seminar. And it's, to me, very gratifying to see the diversity that's kind of grown into the engineering field. And it isn't just women, but there's all kinds of folks from different walks of life who are now managing, running, leading transportation projects and systems. And so to me, the goal has always been to reflect the society we serve, by having employees and managers and leaders helping shape that who are also as diverse as our constituency. And it's gotten much better.

But to me, one of the things that I always try to do is just first of all, model how a woman can succeed. And so as I would go from position to position, if I had women who worked for me, I would say, "Are you interested in this kind of a job? And have you taken these kind of trainings? And have you thought about these kind of experiences?" And encourage them to try. And some people that I have tried to mentor finally said, "Stop it! I don't want to be you. And I like what I do, and I really do just want to design traffic signals for my whole career." And so I had to kind of reconcile this notion that not everybody had the overachiever gene that I did [1:35:01], but that each of us, in different roles, really make up kind of a healthy work environment.

So it's been fun for me, and whenever a dad who's an engineer that I worked with would say, "My daughter's graduating, and she's thinking of going in engineering. Would you talk to her?" I always would meet with those kind of folks, young men and women. But trying to encourage folks that it's not that scary, and the world is much different from when I was in

college and starting my career. And women aren't that much of an oddity, especially in government. It's kind of gratifying to see how many women really are leading.

At the point where I was the secretary, as a woman, the governor was a woman, our two state senators were women—our U.S. senators—our chair of our house and our senate transportation committee were women, and so, women were everywhere in Washington over the last five or six years. And we would joke. You know, we would say, "The chicks are in charge." And we would have a good time with it. So we didn't really feel like we were an oddity in the way that we managed and led our state.

And yet I'd go to somewhere else, another state, and I'm looking around, thinking, "Where's the women?" In the 50-state DOT association, AASHTO, that we belong to, at our peak I think we had six women out of the 50. And I went to the meeting in Denver a few weeks—well, a few months ago, and there was two women at the table. We're losing ground. So it's a struggle, but transportation is not male or female, and certainly the capabilities are there, and so, I'm hopeful that we'll continue to see good diversity in the ranks.

**CP:** Well, is there anything that we didn't touch upon that you think that we need to talk about?

**PH:** I can't think of anything. I feel like I've just been talking forever! [Laughs]

**CP:** Well, thank you very much. This has been good.

**PH:** You're welcome. What will you guys do with all of these interviews?

**CP:** These? [1:37:26]