I believe a university faculty member acts as a tripod, with three strong legs. One leg of the tripod is research, the second leg teaching, and the third leg is service. It is often easier to quantify the first two legs: how many papers do you publish, how much money do you generate, how many classes do you teach, how many teaching awards have you won, and so on. But I believe service is just as critical as research and teaching. While service is not as straight forward to measure as research and teaching, I believe that service should be provided on a local, national, and international level.

In my opinion, service at a local level is the most important level of service. Since the University of Arkansas is a land-grant institution, funded significantly by tax-payer dollars, service back to the university and community should be expected. One aspect of service in the local community is serving on committees. A university is complex, with many different aspects that need attention from faculty members. I believe it is one of my duties as a faculty member to serve on university committees, from the university-wide Transit, Parking, and Traffic Committee to participating in departmental hiring committees; all are necessary to keep the university running smoothly. In addition to serving on committees, participating in outreach programs such as the Engineering Career Awareness Program or Engineering Highlights, both in the College of Engineering, allow me to serve the university.

Another aspect of service to the local community is on the state-wide level. Civil Engineers have ample opportunities to participate in state activities, such as the Arkansas State Highway Transportation Department (AHTD) and other state-wide associations. As in the case for university programs, these state-run associations also depend on help from the community. I believe faculty are prime candidates to participate in these roles. Currently, I am heavily involved with the Arkansas Asphalt Pavement Association and the Arkansas Concrete Pavement Association.

The final aspect of local community I strive to develop is within the local school system. Often it is difficult for pre-university students to understand why they are learning concepts in math and science. I would like to share real-world applications of engineering concepts to local middle and high schools. From fractions to calculus, from chemical compounds to gravity, these are issues engineers deal with everyday. I want to explain some of the more interesting and useful applications in ways that are easy for all levels of students to understand. At the University of Wisconsin and the University of Illinois, I always enjoyed working at the Engineering EXPO, where elementary, middle, and high school students from around the state could learn about the research that was being performed at the university. Currently, I work closely with the Engineering Outreach Office at the University of Arkansas to work with middle school and high school aged students interested in engineering through the Engineering Exploration Program and summer camps. In addition, I often incorporate summer camps for

students in Northwest Arkansas into my research proposals. These one week summer camps give students an opportunity to come to the University of Arkansas and learn about engineering concepts through fun, educational, and hands-on activities.

In addition to service within the local community, the next level of service is on a national scale. Civil Engineers are fortunate to be in a field where there are always new nation-wide engineering problems to face as well as innovative solutions to discover. These problems are often dealt with on a national level through committees and task forces. I am already an active member of the Transportation Research Board, as a member of committee AFK20 (Committee on Characteristics of Bituminous Materials), AFK50 (Characteristics of Asphalt Paving Mixtures to Meet Structural Requirements), and AHD20 (Committee on Pavement Preservation). I am also an active member of the Association of Asphalt Paving Technologists, serving as the Chair of the Newer Member Committee, which continually works to understand the behavior and characteristics of asphalt concrete and its components. Finally, I created and host a monthly webinar series called “Pavinars: Webinars for the Pavement Community.” These webinars give an hour long introduction to various topics in the pavement industry, are attended by public and private sector engineers from around the country, and include time for questions and answers. By serving on committees and hosting the webinars, I am able to reach out to professionals around the country and improve the state of knowledge in pavement materials and sustainability.

I believe that for me, the final level of service I strive for as a faculty member at the University of Arkansas is on an international scale. Having spent 2009-2010 living and working in China, I have experienced first-hand how many of the problems occurring in the transportation infrastructure of China are similar to the problems occurring within the United States. From traffic flow, to cracking in pavements, to subbase failure; these are transportation issues being addressed around the world. Societies such as RILEM, which is an organization dedicated to bringing together researchers from around the world, are essential so each country does not need to discover, process, and solve the same problems that other countries have already solved. With today’s technology, we can either fly across the world in a day or speak to people at all four points of the globe simultaneously online in order to discuss, address, and solve these engineering problems we are all facing.

I believe service must have a purpose. As a faculty member, I actively search out committees and task forces at the university, in the city, in the state of Arkansas, at a national level, and around the world that are working to solve the challenges facing both transportation engineering and university communities. While research and teaching are often the more visual deliverables of a university faculty member, I believe service is just as crucial.