

Meet Kyle Beatty, Vice President at Willis Re Inc., located in Minneapolis, MN



A lesson I've learned in my career thus far is that you cannot always predict where your interests and opportunities will take you. Since leaving academia, my professional life has been highly interdisciplinary – working with engineers, geologists, actuaries, economists, and business professionals. Yet my passion for meteorology has always made staying connected with the weather community a priority for me. One of my personal objectives is to foster greater interaction between the meteorology, finance, and public policy sectors, working toward the mitigation and more effective management of catastrophe risk.

How did you first get interested in weather?

My interest in weather was driven by my curiosity and a desire to understand the severe weather phenomena that I feared as a child. I vividly recall times spent in our basement while the tornado sirens were blaring outside. My lack of awareness of what was going on drove me to want to study the weather, perhaps as a means to gain some control over the situation. Television weather always appealed to me. Through much of my undergraduate program at the University of Oklahoma, I was certain that I would be a TV weatherman. After several years on the public access station in Norman, OK and many valuable internships in Kansas City (my hometown) and Oklahoma City, I realized that what appealed to me most about TV weather was a role that involved translating technical content for use by a non-technical audience and graphic design. At the time, however, I didn't know where else I could use and grow these skills. Little did I know, I would find that opportunity in the insurance industry.

How did you find your first job, and what was it like?

In my senior year at OU I was fortunate to be faced with a decision – should I leap into the private sector or go on to graduate school? I was fortunate to receive an AMS Fellowship, which made the decision for me. In retrospect, the AMS Fellowship had a major positive influence on how my career would develop. I studied severe thunderstorms in graduate school, but always had half my attention focused on opportunities in the private sector (the AMS and NWA career pages were daily stops for me). In fact, I was so anxious to move on to a private sector career, that I began applying for jobs before my thesis was completed. The first several applications / interviews were not successful, but this was a valuable experience to learn about myself and my interests.

My career search still left me wondering where I could apply my unique blend of skills and interests. A discussion with Jeff Kimpel, NSSL Director and (then) AMS President, pointed me to the insurance industry. I was able to successfully navigate a rigorous phone and in-person interview process with Risk Management Solutions, Inc. to finally enter the workforce. I jumped in, however, *before* I had finished my thesis. Upon reflection, this was the right decision for me, but it certainly created stresses for me and those around me. Working in an aggressive “Silicon-

Valley-style” environment, whilst trying to figure out how I could best contribute to the team meant that my thesis needed to go on the back burner. Two years later, I returned to OU to defend my thesis. I missed a lot of opportunities to enjoy the Bay Area over those two years, but having my M.S. degree was key to furthering my growing career in the insurance industry.

How would you describe your current job and how is it different from a forecasting job and other jobs you’ve had?

I left Risk Management Solutions 2½ years ago to have more influence around how catastrophe models are applied everyday by insurance executives. Willis Re Inc. is a reinsurance brokerage firm, or perhaps is more broadly described as a capital advisor to members of the insurance and reinsurance industry. At a first glance, this is *very* far removed from a “traditional” forecasting job. However, I have always tried to keep one foot in the academic pond, and I have been fortunate to continue to do so at Willis.

I broadly have two responsibilities at Willis – I am a catastrophe risk advisor to many of our Florida insurance clients and also I lead a group of technical professionals on practical research projects and real-time catastrophe response. So, what does this mean day-to-day? If an insurance company is highly exposed to hurricanes (as all Florida domiciled insurers are), they will call on me to help them understand ways they can improve their sustainability and profitability. My team uses probabilistic loss estimation tools to advise these companies on how to more effectively diversify their risk and leverage their capital. Insurance is a highly regulated business, and state and local governments also get involved in financing catastrophe risk, so public policy and tracking legislative activity also plays a large role in my job. As a risk advisor, I get the opportunity to give many presentations, leveraging the skills I developed in my days of TV weather.



As in weather forecasting, insurance companies are also faced with making these decisions in the face of uncertainty. The models we use to assess the potential losses from future catastrophic events have substantial uncertainties, driven in part by the low frequency nature of what we are trying to predict. In addition to consulting with Florida insurance companies, my team focuses on understanding the science that the models are based on so we can effectively understand their individual strengths and limitations. This is an exciting area because it involves applied research, allowing me to exercise my academic interests.

Figure 1: Kyle Beatty speaking on behalf of Willis Re Inc. at a climate change symposium in London.

Is forecasting the weather part of your job anymore?

No, not directly. I get more involved in understanding the implication of weather forecasts, rather than doing any forecasting of my own. Insurance and reinsurance are annual contracts and therefore seasonal and multi-year forecasts are of greatest relevance to insurers. We do regularly review and utilize seasonal hurricane forecasts for the North Atlantic when consulting to insurance clients. Understanding the current science on climate change, particularly as the regional implications of climate change become better understood, is also very important to insurance companies.

What would you say to those interested in working in the private sector?

My key advice is to try and be as flexible as possible when considering future career options and seek an employer that also is very flexible. If you are dedicated and ambitious, you often can transform your role into something that plays up to your personal strengths and interests. I also highly recommend you practice public speaking as often as possible. The ability to confidently speak in front of groups can significantly differentiate you from others, particularly in a technical discipline.

I also recommend that you strongly consider the growth opportunities that a career choice offers as you make your career decisions. Personal growth is more important to building your career in the private sector than finding exactly the right niche right out of school. The niche will come later – you'll probably *discover* your niche as you go. Working for a global company can also offer you the opportunity to travel and broaden your understanding of cultures as well as the dynamics of our global economy. Finally, I encourage you to stay connected with the field of meteorology and with the AMS, especially as you find your day-to-day role move further from a "traditional" meteorology position.