

College of Ocean and Fishery Sciences Graduation Day - June 14, 2008  
Hogness Auditorium  
University of Washington

By  
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It is a pleasure and an honor for me to stand in front of the College of Ocean and Fishery Sciences graduating class of 2008, their families and teachers. My special thanks to Dean Arthur Nowell for this invitation and lovely introduction.

I do realize that I stand between you and your celebrations and merry-making for all the hard work it took to get to this point—so I will be brief and try not to be ponderous. But I do want to share few life-lessons learned.

This is one of the most exciting and frightening times of your life. Every graduate hears as they complete this chapter in life, and go onto the next that the door to opportunity is there for them to open and make the most of it. However, the world you knew just a few years ago has changed dramatically and drastically, so you may not feel that this is the opportune time. But believe me, you are actually graduating at a time full of possibility, when scientists - including some in this College and in NOAA - have produced an all-encompassing climate change/global warming report that earned them a shared Nobel Peace Prize. Now who would have thought that a scientific analysis and a voluminous report would be considered for a Peace prize! But it illustrates that documentation and analysis of facts without bias have tremendous value in real life. This is monumental, and the conclusions of the intergovernmental panel on climate change (IPCC) are actually changing world opinion, and are felt in every part of this globe. This is a great victory for science, and all of us who are pursuing scientific careers - be it in teaching, innovation or pure and applied research or science administration - should feel proud to follow such a path of learning not only about our species and its relation to this planet, but how we can make sure we leave this world a better place than when we entered it. You have an unprecedented opportunity to make a difference because we need fresh young minds full of optimism and vigour to help us move in the right direction with a focus on sustainability of Earth's resources and a healthy environment.

I do want to acknowledge, however, that you are facing a world full of challenges, and a time during which our country is experiencing a serious economic downturn. When I graduated from UW almost 4 decades ago we were facing a similar change in this region's economy. But what seemed a dire situation actually changed the course of my life for the better, because I had to look in rather unconventional areas to pursue my career instead of finding a customary job for a chemistry graduate with industry or academia. I discovered, quite by accident, through the help of my thesis advisor who had unwavering faith in my ability, a postdoctoral fellowship to study the chemistry of marine mammal head tissues – a subject in which I had no expertise. But knowing that the education I received from this University had given me the basic tools and training to think analytically and develop a strategy to tackle this unknown yet interesting research question, I accepted the challenge. If I had hesitated and wondered if I had the ability to

succeed in this new area of research, I would have missed a long and enjoyable career in aquatic sciences as applied to natural resources. Looking back I often think that I would have never found this opportunity if jobs were plentiful in more traditional areas of Chemistry. So as you go out into the current workplace, explore various and unconventional ways to apply your scientific expertise and you will be the richer for it.

You are fortunate to be graduating from an institution where your teachers and mentors come from many different disciplines and are dedicated to teaching and learning. I have had the good fortune to work with many of them and with some of you who have interned at the Northwest Fisheries Science Center, which is just next door. Hopefully, you will be able to take what you learned from the College of Ocean and Fishery Sciences and use that knowledge in new and different ways to improve our understanding of this complex planet and its changing oceans.

Not all of you will pursue scientific careers once you graduate, but the knowledge and training you have received from your teachers equips you to think of everyday activities or major global issues in a thoughtful and scientific manner. Only two weeks ago in the editorial pages of the New York Times, Brian Greene of Columbia University wrote, “Science is a language of hope and inspiration, providing discoveries that fire the imagination and instil a sense of connection to our lives and our world.” He explains that science gives life context and meaning, goes beyond any single individual or single day, revealing a bigger, deeper reality of which we are all part. I encourage you to understand and be aware of the universe around you and reach out to others - show them the importance of a holistic and balanced approach to science. As a society we must encourage, retain, and recruit people into the sciences and you are in a perfect position to advance that goal.

It is also critical to continue learning. Learning does not stop when you graduate—in fact, it is just the beginning. The education you received at the University of Washington will serve you very well, but don’t let it be the end of your growth. In my formal education, I did not study biology (my first frog dissection put an end to that and I chose Chemistry/Physics/Math series), but out in the real world I gained critical knowledge of how chemical reactions occur in living organisms and I learned most of my biochemistry and biology on the job and from my colleagues and books, while also taking some classes and seminars. And now here I am, a chemist as the head of a major fisheries science center. I am still amazed and inspired by what I learn every day through the work of my colleagues at the Center and at the university. So if I can do it, so can you! Find your dream job through keeping your mind open. Prepare to take risks and try to recognize opportunity when it knocks at your door because, quite often, it will present itself at a time and in a form you least expect.

Also, do what feels right. Listen to the voices of experience and reason, but analyse the advice you’ve received - you all have good grounding in analytical thinking so use it well, and in the end make the decision that is right for you. It is OK to make few mistakes on the way as long as you learn from them.

And finally, I must quote my favourite philosopher, Ralph Waldo Emerson who said, “Nothing great is achieved without enthusiasm.” So as you choose your career and make decisions about your life, be sure that it is something that you are passionate about. Don’t choose it only for

money or prestige, although both are desirable and useful. Don't make a choice because it is what everybody expects of you, but because it is intrinsically rewarding. Obviously, no job is fun 100% of the time, so I have a formula for you that if 80% of the time you love what you do, you are probably in the right career and poised to fulfil your potential. This has always been my motto: if you ENJOY what you do, you will be rewarded amply.

My heartfelt congratulations to you, and my good wishes for the very best in life!