Good morning, graduates, parents, family, faculty, and friends of the Class of 2016. I am pleased to be here to help celebrate your accomplishments. Honestly, it seems like it was just yesterday that I was on your side of the podium, the first CC graduate to be educated entirely under the Block Plan. Now, instead, I am starting to save for my own grandchildren so that they can attend college. Assuming that the Class of 2034 will even go to college. I think that is a pretty safe assumption. The system of higher education is one of the oldest institutions on the planet, dating from at least the 11th century. In a world where technology is rapidly changing the way we live our lives, there still is no replacement for young minds assembling on a campus to learn and grow.

Graduations seem to be a time when everyone wants to give advice:

- Professors want to tell you what to do with your degree;
- Parents want to tell you how to live your life;
- Graduation speakers try to find lofty truths to prepare you for success that you will no doubt forget tomorrow morning after a fun night of celebrating your achievements.

But the truth is that you will be the recipient of lots and lots of advice in the course of your life. Becoming more discerning about which of that advice is good advice, and which can be safely ignored, can make the difference in your own success in life. I am living proof of that. I don’t think that my own career successes have really anything to do with having gotten better or worse advice than what my peers received, but rather, like in a high-stakes poker game, in deciding which of those advice cards to hold, and which to discard.

Let me give you some examples from my own career.
First, I learned very early on to completely discard advice that came from dealers dispensing from decks I’ll call “It was not in my experience, so it won’t be in yours.” Such individuals who provide advice based on their own, limited experience can sentence future generations to their same fate. An example I encountered was: “Don’t major in physics; there has never been a woman to graduate from this department.” If the Wright brothers had taken that attitude, I would have had to take a train for days to get here to deliver this commencement address. Now, usually advice in this category sounds pretty outrageous to you: the problem is when it comes from authority figures. This is a time when you need to listen to what is being said, not who is saying it.

More difficult choices of whether or not to take the advice come from the “I’m looking out for your best interests” deck. Advice from dealers dispensing from this deck is always well meaning, but not always exactly on target. It is up to you to ask questions as to why you should take the advice, and make up your own mind. Let me give you some examples. When I was nearing graduation, I had planned, along with my best friend, to take a gap year to work at a ski resort in Sun Valley, Idaho, and then apply to graduate schools. My advisor at CC was horrified! He strongly advised that I ditch the plan to be a ski bum and go directly to graduate school. I had thought my plan was actually brilliant, so I asked him why? He was concerned that I would get out of the habit of studying. That I would get used to having money in my pocket from working at the resort, and get derailed from my plan to return to school. Respecting his opinion, I took his advice and immediately applied for graduate school. Now I don’t mean to frighten you graduating seniors who have gap years planned, as I am sure you have more redeeming pursuits planned than I did, but who knows what would have happened had I not taken my professor’s advice? I could be tending bar in Ketchum, Idaho, wondering to this day what might have been on the road not taken.

Another example of advice from the “I’m looking out for your best interests” deck came when I was considering taking my first faculty appointment. A senior professor from another university said, “Don’t
go to MIT; they’ll eat you alive!” Because I generally respected this person’s advice, I asked him why he thought that MIT would be a bad fit for me. He gave some reasons, which mostly had to do with the expectations placed on junior faculty and the difficulties in balancing family and work, as I had a newborn baby. I carefully weighed the upside potential versus the risks, and decided to discard the advice and accept the MIT offer. Several years later, after my twins were born and I received tenure at MIT, that same professor asked me how I was “surviving working at a pressure-cooker place like MIT.” I told him that MIT was where I went on Monday morning to relax and unwind after my weekend home with three young children. Clearly what is “pressure” is completely relative.

Even relatively late in my career I would still seek out advice from trusted senior leaders for major life-changing decisions. After many years leading the Monterey Bay Aquarium Research Institute, a dream job if ever there was one, I was offered the directorship of the US Geological Survey, or USGS. Everyone I knew told me I would be declared certifiably insane to move from idyllic Monterey Bay to Washington D.C., to take a gynormous cut in salary to obtain an equally large increase in bureaucracy. Save one person. I spoke with an old friend, a former president’s science advisor, right after I had met with the Secretary of the Interior to discuss the position. I told him that Secretary Salazar was willing to meet all my requests for elevating the visibility and the prestige of the USGS. This mentor told me: “In this case, then, my advice to you is that you cannot turn down the position. It is not about you anymore. It is what is best for the future of the nation’s water, energy, mineral, and biological resources, and our resilience to hazards and climate change. If you turn down the position, there may not be another opportunity like this again.”

I took the job.

So much for advice given to me. Let me turn now to my advice to you, which you will probably forget by tomorrow. But it is my job as your Commencement speaker to at least try.
So let me start with embracing diversity. Studies show that high-performing organizations and high-achieving individuals have open minds, and welcome those who come from different backgrounds and look and think differently than they do. The proportion of papers published in *Science* magazine with an international complement of authors has skyrocketed in the last 20 years. There is a direct correlation between the acceptance rate for articles from various nations of the world and how welcoming those nations are to students and researchers from other countries.

Next VERY important piece of advice: take climate change seriously! I am truly alarmed at the fraction of Americans who either doubt that climate change is happening or believe that it isn’t a serious issue. The amount of misinformation that is spread via all media channels and the amount of money that is spent spreading misinformation about climate change is truly staggering. For that reason, part of deciding what advice to take and what to ignore is knowing trusted channels of communication. The vested interests trying to confuse the message are very determined! For example, I heard one politician the other day publicly state that 97 percent of scientists dispute that climate change is happening and is caused by burning of fossil fuels. In fact, it is just the opposite. Ninety-seven percent of scientists AGREE that climate change is happening and is largely caused by burning of fossil fuels. Now science alone can’t say unequivocally what is the best response to the reality of climate change — there are many possible actions we can take: mitigation, adaptation, intervention. In fact, we will probably need to do some combination of all three. All science can do is say what will be the possible outcomes from various scenarios, including doing nothing. Scientists agree that doing nothing is a very risky proposition. Wars, famine, disease outbreaks, increased storm intensity, rising seas, droughts, fires, heat waves, and other calamities have already been attributed to changing climate. Everyone can do something about climate change. In how we live our own lives. In the ballot box. In the values we teach our children. I fear if we don’t, it may not be a very happy world for our children or grandchildren.
Next piece of advice: live a life of integrity, at all costs. Unless you plan to make your living as a rock legend or a porn star — two of the few occupations for which a shady reputation is survivable, if not actually beneficial. In nearly all other cases, a good reputation separates those who succeed and those who fail. You will spend a lifetime building a reputation for integrity that can be destroyed by one ill-advised decision. When my children were young I hired a professional nanny to take care of my children when I couldn’t be home, especially given the demands of oceanographic field work. From day one I made the decision to pay all required social security and other taxes associated with hiring in-home help because it was the right thing to do. There was a famous case in the 1990s when two female nominees for Attorney General of the United States were exposed as unfit for the job when background checks uncovered that they, as working mothers, had been paying their household help “under the table.” The scandal became known as Nannygate. No matter that it was possible that any number of male nominees previously might have had household help under similar circumstances, but no one had bothered to ask. When the call from the White House came asking if I would consider being director of the USGS and whether I could pass the intrusive background check, I was happy to be able to answer “yes.”

Finally, I hope you will quickly learn which advice cards to hold, and which cards to discard, even some of the ones I’ve dealt you today. Learn which ones to toss because they come from the deck “Not in my experience, so won’t be in yours.” Figure out which ones come from dealers looking out for your best interests, so need careful evaluation. One card I learned from experience never to discard is from my uber stylish daughters; when they tell me, “No, mom, you shouldn’t wear that,” I listen.

My dream for you, Class of 2016, is that you will get to the point that your decisions will no longer be about you, because they will be so much bigger than just you. It is at that point that you will feel you are doing something of true significance.
Godspeed to you, Class of 2016. Take and give good advice. Live lives of significance.