"Heritage by Chance, Success by Choice" Presented by Shirley Ann Jackson, Ph.D. President, Rensselaer Polytechnic Institute Ohio State University Commencement Sunday, March 19, 2006

Thank you, President Holbrook. Good afternoon, graduates – and, my congratulations to every one of you. And, a wonderful afternoon it is – an afternoon full of promise and potential, of anticipation and excitement. Your mood is infectious – and how many weeks is it now since the Buckeyes and the Lady Buckeyes clinched the Big Ten? Your energy is evident. Cherish this moment – and remember it always.

Now, I cannot help but admit to just an iota of envy – envy not only for your palpable sense of optimism and your pride in what you have accomplished, but also, for the

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universe of possibilities which lies ahead of you. You clearly are **restless** to get out and make a difference – to exchange cap and gown for the attire, formal or informal, of the working world or the graduate program.

I understand your eagerness. Your class will play leading roles in understanding and managing some of the most con**s**equen**ti**al challenges humankind has ever faced.

Your generation, and all those who follow, will be enriched immeasurably by the progress which you and your contemporaries surely will make in confronting civilization's myriad challenges –such as understanding complex global climate trends, preserving biological diversity, promoting social justice, ensuring energy security, extending the frontiers of space exploration, and discovering new art forms which delight and inspire – and which bring people of all stripes closer together.

Mid-19th century novelist Nathaniel Hawthorne once said this of progress: "The world owes all its onward impulses to men ill at ease." In effect, Hawthorne was speaking about choice – about choices made and choices not made. His "men ill at ease" (and, by the way, had Hawthorne lived a little longer to hear of the first woman graduating from Ohio State just nine years after the college's founding in 1870,¹ perhaps he would have included ill-at-ease women in his assessment) ... Hawthorne's "ill at ease" individuals are identifiable by a clear characteristic: they recognize that their heritage - their legacy of family education, of socioeconomic

background, of ethnicity, of gender – is theirs by **chance**, but that eventual **success** is theirs by **choice**.

When I was an undergraduate and still deciding on a major at M.I.T., a professor offered me **this** career advice: He said, "Colored girls should learn a trade." Of course, I was taken aback and hurt. But, I thought about my chances **and** my choices. Chance had made me colored. Chance had made me a girl. I readily embraced both. But, as for the **choice** of trade—I **chose** physics. And, I have been trading very well in that domain and the domains springing from it for these many years, now.

Chance is a two-faced chameleon. She/he always appears as both opportunity and obstacle. The anatomy of

 $^{^1}$ http://www.osu.edu/news/history.php accessed on March 13 2006 3

choice, on the other hand, is the ability to determine your fate by the selections you make. So, when I was faced, as an undergraduate at M.I.T., with the options to give in to ignorance, or to go on to excellence, I chose the latter—I cho**s**e to persevere.

From the moment we learn to navigate the chances we inherit or encounter, our lives become the product of our choices. It is up to each of us to make the distinction.

Put another way, world-changers are people who take the hands they are dealt, and who, consistently, persistently, choose to act to better their odds. They understand very **well** that the selections they make determine the outcomes they will achieve. I believe I am speaking to a powerful gathering of worldchangers right now. In fact, I know it. I know it because, as a scientist, I am familiar with the principles of probability and the value of data. The data tell me that every graduating class from Ohio State has contained an uncommon proportion of world-changing individuals, and the laws of probability assure me that your class will be every bit as influential as your predecessor classes.

Look at the impact which Ohio State graduates already have had on the world around them. There is Dr. Michael Maves [as in "waves"], now heading up the American Medical Association. There is Barbara Ferris, who founded the wonderful International Women's Democracy Center in our nation's capital. There are astronauts Lt. Col. Nancy Currie and Dr. Richard Linnehan, a veterinarian, who took part in a 2002 shuttle mission to install new cameras on the Hubble telescope. You have His Excellency Dr. Amadou Lamine Ba [pronounced Am-a-doo La-MEEN BAH], the biology doctorate who is Senegal's ambassador to the United States. And, there is Chris Wedge, the creative zest behind the successful animated movie "Ice Age." These are just a few of the giants on whose shoulders you now stand. And, there are many others. Do not forget the impact of those at Ohio State from whom you have learned to question and to probe, to monitor and to record. Perhaps you were taught geological sciences by Dr. Lonnie Thompson, one of the world's authorities on the melting of glaciers and ice caps as a warning of rising global temperatures.

Six years ago, it was Dr. Thompson who dramatically shifted the global warming debate by predicting that the snows of Mount Kilimanjaro likely will have melted by 2015. Now, he took a risk by making such a bold statement, but he got the world's attention.

Thompson, Linnehan, Currie – world-changers all, and so very clearly shapers of their own successes. They and so many others from the Ohio State diaspora have built for you a sturdy platform from which to launch your lives, your careers, your contributions.

However, it is crucial to have the skills and the outlook to take full advantage of today's tools and expectations. You are coming of age in a complex, volatile world which is more tightly interconnected than ever. When I graduated from the Massachusetts Institute of Technology (M.I.T.), I joined a Page 8 of 13 pre-Internet world to which narrow, specialized skills were well suited, and in which vertical career tracks were typical. That is hardly the case, today. Scan the job descriptions for high-potential employees in industry, in the sciences, in politics, sports, and civic service, and you will see how much value is now placed on skills and capabilities which span disciplinary, organizational, even functional boundaries. And, this is as true in Beijing as it is in Berlin or Boston, or here in the Buckeye State.

Boundary-spanning means being well-rounded – a clumsy word, perhaps, to describe the aggregation of competencies and openness which matter **s**o much more today.

Being well-rounded, then, means embracing an education which nourishes the right and left halves of the Page 9 of 13

brain. It means being willing and eager to learn from diverse cultures and backgrounds, from many different people, with many different viewpoints and different languages. And increasingly, it calls for an ability to communicate well, and to cooperate consistently and whole-heartedly, with a real giveand-take, and with a fierce curiosity. Scientist or artist, executive or sole proprietor, your contributions will be magnified many times if you can listen and present, and if you can recognize and harness the skills of others. You already have tasted of these things here. Take that taste away with you to position you to do yet more.

Progress happens. It happens in fits and starts, and it happens fastest when men and women are most "ill at ease." Early 20th century author Elbert Hubbard put a more topical twist on the idea of progress when he said that "the world is moving so fast these days that the man who says it can't be done is generally interrupted by someone doing it." I know you are eager to start doing some serious interrupting yourselves.

Each generation raises the platform higher on the shoulders of the last. Your job – no, your obligation – is two fold: to raise that platform higher for those who come behind you—and, at the same time, to reach back and encourage those who come after you to climb onto that high platform. So look around, today, at your classmates, your fellow graduates, to see who will be creating the future—who will raise the platform—all of you! I leave you with these final thoughts: be a*w*a*r*e of your potential – *always*. Live *up* to your potential – use it to surmount the uncertainties, the setbacks which you assuredly will encounter. And, continually e*xp*a*nd* your potential. You know, as I do, that your learning did not stop with your last class exam. You have more to learn. You know, as I do, that you have so much more to do. Given that, why not leap for the stars? You may never catch one, but you will go far.

Remember: Heritage is by chance, success is by choice.

Good luck, congratulations, and Godspeed.

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