Drew Gilpin Faust As delivered Commencement Speech Tercentenary Theatre, May 30, 2013 Harvard University, Cambridge, MA

It is always a pleasure to greet a sea of alumni on commencement afternoon—even though my role is that of the warm-up act for the feature to come. Today I am especially aware of the treat we have in store as I look out on not a sea, but a veritable ocean of anticipation.

But it is my customary assignment and privilege to offer each spring a report to the alumni on the year that is ending. And this was a year that for a number of reasons demands special note.

"The world is too much with us"—the lines of Wordsworth's well-known poem echoed in my mind as I thought about my remarks today, for the world has intruded on us this year in ways we never would have imagined. The university had not officially closed for a day since 1978. This year it closed three times. Twice it was for cases of extreme weather—first for superstorm Sandy and then for Nemo, the recordbreaking February blizzard. The third was of course the day of Boston's lockdown in aftermath of the tragic Marathon bombings. This was a

year that challenged fundamental assumptions about life's security, stability and predictability.

Yet as I reflected on these intrusions from a world so very much with us, I was struck by how we at Harvard are so actively engaged in shaping that world and indeed addressing so many of the most important and trying questions these recent events have posed.

Just two weeks ago, climate scientists and disaster relief workers gathered here for a two-day conference co-sponsored by the Harvard Humanitarian Initiative and the Harvard University Center for the Environment. They came to explore the very issues presented by Sandy and Nemo and to consider how academic researchers and workers on the ground can collaborate more effectively.

This gathering represents just one example of the wide range of activities across the university dedicated to addressing the challenges of climate change. How can we advance the science that helps us understand climate change—and perhaps avert it? How can we devise solutions—from new technologies to principles of urban design—that might mitigate it? How can we envision the public policies to manage and respond to it? Harvard is deeply engaged with the broad issues of energy and environment—offering more than 250 courses in this area,

gathering 225 faculty through our environment center and its programs, enrolling 100 doctoral students from 7 schools and many different disciplines in a graduate consortium designed to broaden their understanding of environmental issues. Our faculty are studying atmospheric composition and working to develop renewable energy sources; they are seeking to manage rising oceans and to reimagine cities for an era of increasingly threatening weather; they are helping fashion environmental regulations and international climate agreements.

So the weather isn't something that simply happens at Harvard, even though it may have seemed that way when we closed twice this year. It is a focus of study and of research, as we work to confront the implications of climate change and help shape national and international responses to its extremes.

When Boston experienced the tragedy of the Marathon bombings last month, the city and surrounding municipalities went into lockdown on April 19 to help ensure the capture of the escaped suspect, and Harvard responded in extraordinary ways. Within our own community, students, faculty and staff went well beyond their ordinary responsibilities to support one another and keep the university operating smoothly and safely under unprecedented circumstances. But we also witnessed our

colleagues' magnificent efforts to meet the needs of Boston and our other neighbors in the crisis. The Harvard Police worked with other law enforcement agencies, and several of our officers played a critical role in saving the life of the transit officer wounded in Watertown. Doctors, nurses and other staff, many from our affiliated hospitals, performed a near-miracle in ensuring that every injured person who arrived at a hospital survived. Years of disaster planning and emergency readiness enabled these institutions to act in a stunningly coordinated and effective manner. I am deeply proud of the contributions made by members of the Harvard community in the immediate aftermath of the bombings.

But our broader and ongoing responsibility as a university is to ask and address the larger questions any such tragedy poses: to prepare for the next crisis and the one after that, even as we work to prevent them; to help us all understand the origins and meaning of such terrible events in human lives and societies. We do this work in the teaching and research to which we devote ourselves every day.

Investigators at the Harvard hospitals are exploring improved techniques for managing injury. Researchers at Brigham and Women's, for instance, are pursuing the prospect of leg transplants for amputees. A faculty member in our School of Engineering and Applied Sciences is

studying traumatic brain injury. Faculty in the Business and Kennedy Schools are teaching and learning about leadership in times of crisis analyzing historic and contemporary examples, from Shackleton in Antarctica to Katrina in New Orleans—searching for lessons for the future. The very day of the lockdown, the Mahindra Humanities Center and the Harvard Law School Program in Negotiation had scheduled a conference on "Confronting Evil," examining the cognitive, behavioral and social implications of both "everyday evils" and "extraordinary crimes." A few days later, the Harvard Divinity School assembled a panel of experts to discuss "Religion and Terror," exploring sources of violence in Bosnia, in the Middle East, and in the Troubles in Ireland, which had served as a formative experience for our Divinity School dean in his youth. At the Institute of Politics at the Kennedy School, law enforcement, emergency management and other experts gathered to consider lessons learned from the bombings. As we struggled to understand the events that shook our city and our region, members of our community were already engaged in interpreting the world that had produced such tragedy and in seeking ways to prevent its recurrence.

Three unusual days, making for an unusual year. Yet these three unusual days illuminate and underscore the *usual* work of this

university: calling on knowledge and research to address fundamental challenges and dilemmas with resources drawn from the widest scope of human inquiry—from the insights of natural and social sciences to the reflections on meaning and values at the heart of the humanities.

Universities urge us towards a better future and equip us as individuals and as societies to get there.

Yet other events this past year remind us we cannot take what universities do for granted. This year has brought home not just the threats of extreme weather and of terror and violence. It has also been a year that has challenged fundamental assumptions undergirding American higher education and the foundations of our nation's research enterprise. I have just offered examples of how our research and teaching can contribute to addressing urgent problems facing our world. We live in an era in which knowledge is more vital than ever to nations, economies and societies. Knowledge is, I often say, the most important currency of the twenty-first century. And universities are the places that, more than any other, generate and disseminate that knowledge.

In the United States, the partnership between universities and the federal government established after World War II has been a powerful engine of scientific discovery and national prosperity. Yet that partnership,

now more than half a century old, is threatened by the erosion of federal support for research—a situation made acute by the sequester. An estimated almost \$10 billion will be cut from the federal government's research budget in 2013. The National Institutes of Health calculates that cuts to its resources could mean the loss of more than 20,000 jobs in the life sciences sector. Here at Harvard, we receive approximately 16 percent of our operating budget from federal research funding. We anticipate we may see declines of as much as \$40 million annually in federal support for research.

What does all this mean? Faculty are finding that even grant applications with perfect scores in peer evaluations are not getting funded. They see existing awards being reduced. Aspiring younger scientists are fearful they will not receive the career-launching grants on which their future depends. Some are entertaining overtures from countries outside the US where science investment is robust and expanding. Students contemplating graduate training are wondering if they should pursue other options. Great ideas that could lead to improved human lives and opportunities are left without support or the means for further development.

The world and the nation need the kind of research Harvard and other American universities undertake. We need the knowledge and understanding that research generates—knowledge about climate change, or crisis management, or melanoma, or effective mental health interventions in schools, or hormones that might treat diabetes, or any other of a host of other worthy projects our faculty are currently pursuing. We need the support and encouragement for the students who will create our scientific future. We need the economic vitality—the jobs and companies—that these ideas and discoveries produce. We need the nation to resist imposing a self-inflicted wound on its intellectual and human capital. We need a nation that believes in and invests in its universities because we represent an investment in the ideas and the people that will build and be the future.

So as I report to you on the year we now bring to a close, I want to underscore the threat to universities and to our national infrastructure of knowledge and discovery that the sequester represents. Even in a year when sometimes the world felt too much with us, we have never lost sight of how much what we do here has to do with the world. And *for* the world. To sequester the search for knowledge, to sequester discovery, to sequester the unrelenting drive of our students and faculty

to envision and pursue this endless frontier—such a strategy does more than threaten universities. It puts at risk the capacity and promise of universities to fulfill our commitment to the public good, our commitment to our children and grandchildren and to the future we will leave them. The challenges facing the world are too consequential, the need for knowledge, imagination, and understanding is too great, the opportunity for improving the human condition too precious for us to do anything less than rise to the occasion. With the devotion of our alumni, with the inspiration of our new graduates and—I hope—with the support of our nation's leaders, we must and we will.