FOIA Number: 2006-0462-F

FOIA MARKER

This is not a textual record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

Collection/Record Group: Clinton Presidential Records

Subgroup/Office of Origin: Speechwriting

Series/Staff Member: Terry Edmonds

Subseries:

OA/ID Number: 10987

FolderID:

Folder Title:
Morgan State Drafts & Info. [3]

Stack:	Row:	Section:	Shelf:	Position:
S	0	0	0	0

Withdrawal/Redaction Sheet
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. speech	Speech fragment (partial, handwritten note) (1 page)	02/02/97	P6/b(6)

COLLECTION:
Clinton Presidential Records
Speechwriting
Terry Edmonds
OA/Box Number: 10987

FOLDER TITLE:
Morgan State Drafts & Info. [3]

2006-0462-F
ry667

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

5/14/97 4:00 pm

PRESIDENT WILLIAM J. CLINTON
COMMENCEMENT ADDRESS, MORGAN STATE UNIVERSITY
BALTIMORE, MARYLAND
MAY 18, 1997

Acknowledgments: Dr. Earl Richardson, President; Judge Harry Cole, board chair; Governor Glendening; Mayor Schmoke; elected officials – including city council, which voted to ban cigarette billboards near schools; Reps. Elijah Cummings, Ben Cardin; Sens. Sarbanes, Mikulski; Board of Regents; Faculty and staff; distinguished alumni: Judge Cole; Judge Robert Bell, Chief Judge of Maryland's highest court; Kweisi Mfume; Earl Graves; Richard Dixon, State Treasurer; Terry Edmonds, White House staff.

I am pleased to deliver my first commencement at an Historically Black University. In our past, when the doors of college were closed to all but white students, Morgan State and the nation's other HBCUs gave young African Americans the education they deserved and the pride they needed to rise above cruelty and bigotry. In our present, HBCUs produce the lion's share of our black doctors, judges, and businesspeople – and Morgan State graduates most of the black scientists and engineers in Maryland. And in our future, I am certain that HBCUs will play an even greater role in moving our country forward.

But, Morgan State is not just a great Historically Black University -- Morgan State is a great American university. You have produced some of this country's finest leaders. Not just the African American community, but our entire American community would be diminished without great Morgan grads like Parren Mitchell, Kweisi Mfume and Earl Graves. The halls of justice would be diminished without great judicial leaders like Judge Bell and Judge Cole. And without Morgan, I would never have had the good fortune to work with Terry Edmonds who, remarkably, is the first African American ever to serve as a presidential speechwriter.

All of you graduate today into a world brimming with promise and rich with opportunity. As I said in my State of the Union Address in January, I believe that our greatest challenge must be to use this moment of great hope and prosperity to prepare our people for the challenges of the 21st Century. This spring, in commencement addresses, I will ~~address ways that~~ talk about the ways that we can focus our nation on things that should be great strenths in the years to come. I will discuss our diversity, and how we can make sure that it brings us together rather than pulls us apart. I will discuss America's obligation to lead the world, espeically our obligation to help build a strong and united Europe in the wake of the Cold War.

And we know that above all else the 21st century, in its texture, in its promise and in its reality, will be molded by science, shaped by technology, powered by knowledge.

We enter that century propelled by new and exciting developments. In the past year alone, we saw the cloning of Dolly, the sheep. The Hubble Telescope is bringing into focus dark

corners of the cosmos never seen before. Innovations in computer technology and communications are creating what Bill Gates calls the world's new "digital nervous system." Cures for our most dread diseases – diabetes, cystic fibrosis and Alzheimer's -- seem within reach. And last week, we saw a computer named Deep Blue, defeat the world's reigning chess champion. I hope they don't make a computer that can play golf.

Over the past half century, we have seen some of mankind's greatest breakthroughs, as we split the atom, created the microchip, focused laser's light to transform the way we live. For half a century, we struggled to harness these forces as powerful as the sun, in an effort to keep them from destroying the planet. Today, at long last, nuclear and computer technology are realizing their greater value as servants of a better life, not masters of a bitter destruction.

If the last 50 years were the age of physics, the next 50 years will be the age of biology. We are now embarking on our most daring exploration ever -- unraveling the mysteries of our inner world and charting new routes to the conquest of disease. And our great challenge will be to harness the power of biology, our increasing knowledge about the cell, the brain and life itself so that we can reap the amazing benefits without sowing the seeds of our own destruction.

We have not, and we must not ever shrink from exploring the frontiers of science and basic knowledge, no matter where it leads us. But as we consider how to use the fruits of that knowledge, we must also never retreat from our commitment to human values, the good of society, and our basic sense of right and wrong. Today let us commit: in the 21st Century, science must serve humanity – never the other way around.

Where once nations measured their strength by the size of their armies, their arsenals and their GDPs, in the world of the future, it is science and knowledge that will matter most. Fully half the growth in economic productivity over the past half century can be traced to innovation and technology. That is why we must fully embrace the promise of science to maintain our leadership in the high-tech global economy of the 21st century. That is why it is important that the balanced budget agreement I reached with the leaders of Congress funds the increase I requested for science and technology in my 1998 budget and reaffirms our long-term commitment in this important area. Last year, five of the eight Nobel Prize winners in science were Americans. We can all be proud. And we can be prouder still that every single one of them received help from the national government for their research.

Today, America leads the world in science. It has always lead the world in science. And we must continue to lead the world in science. Ours is a nation defined by the great goals we set. Often these goals can seem beyond our reach. But it is the very act of reaching for that far horizon -- of imagining our future and striving to realize it -- that will define us. We are a restless, questing people. We have always believed, with Thomas Jefferson, that freedom is "the first born daughter of science." And with our willpower, our resources and a great national effort, we have always reached those horizons, and set out for new ones.

Thirty-six years ago, President Kennedy looked to the skies and proclaimed that the flag

of peace and democracy, not war and tyranny must be the first to be planted on the moon.

Today, let us look within and step up to the challenge of our times -- a challenge with consequences far more immediate for the life and death of millions around the world. AIDS will soon overtake tuberculosis and malaria as the leading infectious killer in the world. Even here in this country, where new and effective anti-HIV strategies are available, complacency is not an option. HIV is capable of mutating and becoming resistant to therapies and could well become even more dangerous. Only a truly effective anti-HIV vaccine can eventually totally eliminate the threat of AIDS.

Today, let us set a new national goal for this era of science. Today, let us commit ourselves to developing an AIDS vaccine within the next ten years. There are no guarantees; it will take energy, it will take focus; it will demand great effort from our greatest minds. But we have made strides in recent years. It is no longer a question of whether we can develop an AIDS vaccine -- it is a question of when. And if America commits to find an AIDS vaccine within the next decade, we will do it.

I am prepared to do all I can to make this happen. Our scentists at NIH have been at the forefront of this battle. Today, I am pleased to announce that NIH will establish a new AIDS vaccine laboratory dedicated to this crusade. At the summit of industrialized nations in Denver next month, I will enlist other nations to join us in a worldwide effort to find a vaccine to stop one of the world's greatest killers. And we will challenge America's pharmaceutical industry, which leads the world in innovative research and evelopment, to work with us and make the successful development of an AIDS vaccine part of its basic mission.

The 21st Century will be the century of biology. Together, we can make an AIDS vaccine its first great triumph.

This is just one example of the great advances that will be made possible by our focus on science and technology. In this and so many other ways, science will enrich our existence. It is how we will work with other nations to address global climate change. It is how we will break our reliance on limited sources of energy. It is how we will once again make giant strides to free ourselves and future generations from the tyrrany of disease and ignorance that today enslaves too many around the world.

So today, at the edge of this new century, let us pledge to learn more and do more in the realm of science. But let us also pledge to redouble our vigilance, to make sure that the science of the 21st Century serves our most enduring human values. Just as science can be a tremendous force for good, it can also be used to do harm.

Science often moves faster than our ability to understand its implications. Each new discovery, each new breakthrough, creates a new maze of moral and ethical questions. We are only just beginning to figure out how to answer those questions.

The Internet can be a new town square – or it can be a new Tower of Babel. The same computer that can put the Library of Congress at our fingertips, can also ~~be used as a recipe for bombbuilding by~~ purveyors of hate. The same knowledge that is developing new life-saving drugs can be used to create poisons of mass destruction. Science can enable us to feed billions more people in comfort and safety -- or it can spark a nuclear or biological war, that in a matter of minutes can ~~set in motion forces that~~ reduce our planet to a wasteland. And it can do so by accident just as easily as on purpose.

Science has no soul of its own. It is up to us to determine if it will be used as a force for good or evil.

Let me be clear: We must do nothing to stifle our basic quest for knowledge. Human curiosity is the driving force behind all human discovery. It is a fundamental principle of our democracy. In the last century, the spirit and benefits of scientific inquiry have propelled us from field to factory to cyberspace.

But, how we use the fruits of science and how we apply it to human endeavors is not properly the domain of science alone -- or scientists alone. I believe we must apply the same ethical and moral principles that have guided every great religion, our great democracy, our very sense of right and wrong. We need a great national conversation about these principles, ~~and~~ how to apply them to the dazzling new discovieries of science, ~~and they must guide us if we are to~~ master the powerful forces of change in the century to come. we must decide to

First, science and its benefits must be directed towards making life better for all Americans, not just the privileged few. Lack of money or social status must never be a barrier to the benefits of science and technology. Science that does not move us all forward is science that will hold us all back. Science must not create a new line of separation between the haves and have nots -- those with and without the tools and understanding to learn technology. In the 21st century, the school that does not have the link to the Internet or the child who does not have access to a computer will be like the 18th century child without schoolbooks. That is why we are ensuring that every child in every school, no matter how rich or poor, will have the same access to technology.

We also know that in years past, too often science mirrored the sickness of society at large. Here at one of America's great black universities, let me underscore what I said a few days ago at the White House. We must never allow our citizens to be unwitting guinea pigs in scientific experiments without their consent, that put them at risk -- whether it is the withholding of syphilis treatment from the black men of Tuskegee or the Cold War experiments that subjected some of our citizens to dangerous doses of radiation. We must never go back to those awful days when eugenics and racial stereotyping here and in Europe resulted in discrimination and worse against those judged to be inferior. Our greatness is measured not only in how we do right, but also in how we act when we know we've done the wrong thing; how we confront our mistakes, make our apologies and take action. Together, we must say, never again.

adopt

The second principle I believe we should is this: none of our discoveries, especially in the areas of genetics, should be used to label or discriminate against any group or individual. Increasing knowledge about the great diversity within the human species must not change the basic belief upon which our ethics, our government and our society are based: All men are created equal. Period. End of story.

With stunning speed, scientists are now moving to unlock the secrets of our genetic code. Genetic testing has the potential to identify hidden genetic disorders and spur early treatment. But, it can also be used by insurance companies and others to discriminate and stigmatize groups of people. We know that in the 1970s some African Americans were denied health care coverage by insurers and jobs by employers because they were identified as sickle cell anemia carriers. We also know that the number one reason women refuse genetic testing for susceptibility to breast cancer is their fear that insurance companies may either deny them coverage or raise their rates. We must put a stop to this. No insurer should be able to use genetic data to underwrite or discriminate against any American seeking health insurance. This should not just be a matter of principle, it should be a matter of law. In the coming weeks, I will send legislation to the Congress to prohibit insurance companies from using genetic screening information to determine premium rates or eligibility for health insurance.

Our third principle must be this: science should not be used to break down the wall of privacy free citizens are guaranteed in a free society.

The right to privacy is one of our most cherished freedoms. As society has grown more complex, and as people have become more interconnected in every way, we have had to learn to respect the dignity and autonomy of each individual. Today, when marketers can follow every aspect of our lives, from the first phone call we make to the time our security system says we have left the house, to the video camera at the toll booth and the charge slip we leave for lunch, we cannot afford to forget this most basic lesson. As the Internet reaches to touch every business and every household, and we face the frightening prospect of private infomration or even medical records instantly being made available to the world, we must develop new protections for privacy to meet this new reality.

And fourth, we must always remember that science is not God. Our deepest truths remain outside the realm of science. We must temper our euphoria over the recent breakthrough in animal cloning with sobering attention to our most cherished concepts of faith and humanity. My own view is that each human life is unique, born of a miracle that reaches beyond laboratory science. I believe we must respect this profound gift and resist the temptation to replicate ourselves. But this is a decision no President should make alone. That is why I have asked our distinguished National Bioethics Advisory Commission, headed by President Harold Shapiro of Princeton, to conduct a thorough review of the legal and ethical issues raised by this new cloning discovery. They will give me their recommendations within the next few weeks.

Science that produces a better life for all and not the few. Science that honors our tradition of equality. Science that respects the privacy of the indivdual. Science that never

confusees faith in technology with faith in God. If we hold fast to these principles, we can make this time of change a moment of dazzling opportuntiy for all.

Science will only serve the values of all Americans, if all Americans are given a chance to participate in science. We cannot move forward without the voices and talents of everyone in this stadium and, especially those graduates who are going on to pursue careers in science and technology. African Americans have always been at the forefront of American science. Nothing -- not slavery, not discrimination, not poverty -- has ever been able to hold back the scientific urge or the creative genius of African Americans.

Benjamin Banneker was a self-taught mathematician/surveyor/astronomer, who published an annual almanac and helped design the city of Washington. George Washington Carver was born a slave, but went on to become one of this nation's greatest agricultural scientists. And Charles Drew lived through the darkest days of segregation to become a pioneer in blood preservation. They showed us all how America's diversity is its greatest strength. Now it is your time. It is up to you, to honor their legacy, to live their dreams, to be the investigators, the doctors, and the scholars who will help keep our science rooted in our values.

Thank you and God bless you all.

ENVIRONMENT DIVISION
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, DC 20500
202-456-6202
FAX 202-456-6025

TO: Michael Waldman
Speechwriting

FAX: 65709
PHONE: 62272

PAGES: 2 (including cover)

FROM: Peter Backlund
PHONE: 202-456-6081
EMAIL: pbacklund@ostp.eop.gov

DATE: 5-15-97
SUBJECT: Proposed insert for Morgan State speech

MESSAGE:

Insert Attached

Proposed two-paragraph insert to replace current 2nd full paragraph on p. 5:

Thirty six years ago, President Kennedy focused on the heavens. Now we must look around us, at our environment, and face up to one of the greatest challenges of our time -- global climate change. Human activities are dramatically altering the chemistry of our atmosphere, and this change is warming the planet. If unchecked, this warming will have significant consequences, leading to increases in floods, droughts, heat waves, and changed patterns of disease exposure. Climate change will also lead to disruption of the ecosystems on which we depend for food, clean air and water, and recreation. The nations of the world are engaged in negotiating a climate change treaty to take the first steps to bring this global problem under control. Solving the problem is crucial to future generations in all countries, and fortunately, it appears that there are solutions.

By far the most important is to fundamentally change our sources of our energy and to increase the efficiency with which they are used. The United States must do its part, and as the world's leader in technological innovation, we have a special responsibility. And so, I have personally requested my Committee of Advisors on Science and Technology to work with the Department of Energy to craft a strategy that meets both our energy and environmental needs over the next century. A visionary approach to our energy future can enhance U.S. competitiveness, improve energy security, and make us responsible stewards of the global environment.

Michael
Waldman –

FYI

–OSTP

DRAFT

5/14/97 4:00 pm

PRESIDENT WILLIAM J. CLINTON
COMMENCEMENT ADDRESS, MORGAN STATE UNIVERSITY
BALTIMORE, MARYLAND
MAY 18, 1997

Acknowledgments: Dr. Earl Richardson, President; Judge Harry Cole, board chair; Governor Glendening; Mayor Schmoke; elected officials – including city council, which voted to ban cigarette billboards near schools; Reps. Elijah Cummings, Ben Cardin; Sens. Sarbanes, Mikulski; Board of Regents; Faculty and staff; distinguished alumni: Judge Cole; Judge Robert Bell, Chief Judge of Maryland's highest court; Kweisi Mfume; Earl Graves; Richard Dixon, State Treasurer; Terry Edmonds, White House staff.

I am ~~pleased~~ honored to deliver ~~my first~~ this commencement at an Historically Black University. In our past, when the doors of colleges most were closed to all but white students, Morgan State and the nation's other HBCUs gave young African Americans the education they deserved and the pride they needed to rise above cruelty and bigotry. In our present, HBCUs produce the lion's share of our black doctors, judges, and businesspeople – and Morgan State graduates most of the black scientists and engineers in Maryland. And in our future, I am certain that HBCUs will play an even greater role in moving our country forward.

But, Morgan State is not just a great Historically Black University -- Morgan State is a great American university. You have produced some of this country's finest leaders. ~~Not just the African American community, but~~ Our entire ~~American~~ community would be diminished without great Morgan grads like Parren Mitchell, Kweisi Mfume and Earl Graves. The halls of justice would be diminished without great judicial leaders like Judge Bell and Judge Cole. And without Morgan, I would never have had the good fortune to work with Terry Edmonds who, remarkably, is the first African American ever to serve as a presidential speechwriter.

All of you graduate today into a world brimming with promise and rich with opportunity. Today, ~~and in speeches at several other graduations this spring~~, I want to talk about the challenge of preparing the American people for the stunning new century ahead.

We know that this new world will be smaller than ours is, as currents of commerce and communications link every nation in a truly global economy. We know that we will have to work harder than ever to make our diversity not a weakness, but our greatest strength.

And we know that above all else the 21st century, in its texture?, in its promise and in its reality, will be molded by science, shaped by technology, powered by knowledge.

Over the past half century, we have seen mankind's greatest breakthroughs -- we have split the atom; microchips and lasers have transformed the way we live. For half a century, we have also ~~struggled~~ strived to harness these forces as powerful as the sun, in an effort to keep them from destroying control the use of, developed to deter deadly conflict,

Partnership for a New Generationof Vehicles (PNGV) might be a better example if we're talking about 1) the pace of change, 2) forging S&T public-private partnerships to tackle complex technical challenges, or 3) how to reduce our need for imported oil. In any event, growing plastic on thousands of acres will not "dramatically" back a lot of imported oil out of economy. Strike the word "dramatically" if the sentence will remain as it is. Or consider: *Today, many of our finest scientists and engineers from both the public and private sectors are working in partnership to develop a new generation of vehicles (PNGV) by 2004 that will get 80 miles per gallon.* Or, you want different construct on "genericly altered", then you might consider: *Today, farmers are planting millions of acres of genetically- altered, pest resistant crops which dramatically reduces our need for environmentally hazardous pesticides.*

the planet. Today, at long last, nuclear and computer technology are realizing their greater value as servants of a better life, not masters of a bitter destruction. They are revolutionizing the way we communicate, helping save lives, providing healthier and safer foods, protecting our environment, improving transportation and making all our lives better.

half century was ~~50 years~~ half of the 21st century

If the last ~~50 years~~ were the age of physics, the next ~~50 years~~ will be the age of biology. We are now ~~embarking on~~ in the midst of our most daring exploration ever -- unraveling the mysteries of our inner world and charting new routes to the conquest of disease. And our great challenge will be to harness the power of biology, our increasing knowledge about the cell, the brain and life itself so that we can reap the amazing benefits without sowing the seeds of our own destruction.

We have not, and we must not ever shrink from exploring the frontiers of science and basic knowledge, no matter where it leads us. But as we consider how to use the fruits of that knowledge, we must also never retreat from our commitment to human values, the good of society, and our basic sense of right and wrong. Today let us ~~commit~~ re-commit: in the 21st Century, science must serve humanity – never the other way around.

the next

We enter ~~that~~ century propelled by new and exciting developments. In the past year alone, we saw the cloning of Dolly, the sheep. We learned that painless lasers can now do the work of hand-held drills in dentistry. The Hubble Telescope is bringing into focus dark corners of the cosmos never seen before. Scientists have found what they believe may be fossil evidence of microscopic life on Mars. And last week, we saw a computer named Deep Blue, defeat the world's reigning chess champion. I hope they don't make a computer that can play golf.

In years to come this pace of change will only accelerate. Today, farmers are planting thousands of acres of plants genetically altered to produce plastic, which by 2003 will dramatically reduce our need for imported oil. ~~Innovations in computer technology and communications are creating what Bill Gates calls the world's new "digital nervous system."~~ Cures for our most dread ~~diseases~~ illnesses – diabetes, cystic fibrosis and Alzheimer's -- seem within reach. What was once the stuff of science fiction is now routine fact. The new Telecommunications Act which is signed will bring the latest technology to our children's desktops and revolutionize how medical services are delivered to rural areas.

check

If we master these powerful forces, we will enrich our existence. These breakthroughs dazzle us not only because of their brilliance but because they offer a prospect for fuller, ~~longer~~ more satisfying lives -- lives that are freed from the shackles of disease and ignorance that today enslave too many around the world.

If we master these forces, we will keep our economy the strongest in the world. Today, unemployment is the lowest it's been in more than two decades. Core inflation is at its lowest in three decades. And we have recently seen the highest decline in income inequality since the 1960s. But, as strong as our economy is, it will not sustain our leadership in the 21st century if we do not ~~harness the forces~~ nurture the institutions of science and technology that have always led our progress. Where once nations measured their strength by the size of their armies, their arsenals and their GDPs, in the world of the future, it is knowledge that will matter most. Fully half ~~the~~ of our economic growth over the past half century can be traced to innovation and technology – and that share will only grow in

9/6 We master these forces, we will be able to demonstrate that we can defeat the specter of environmental pollution, depletion of resources, and global climate problems.

years ahead.

But more than our economy, more even than the benefits to our lives, this scientific revolution ~~will~~ can lift the American spirit and let our imaginations take wing. A constant thirst for knowledge has been a defining part of our history. From the earliest pioneers to the men and women who explore our heavens, ours has been a restless quest of discovery. We have always believed, with Thomas Jefferson that freedom is "the firstborn daughter of science."

Human curiosity is the driving force behind all human discovery. We must do nothing to stifle our basic quest for knowledge. It is an essential part of what makes us human. It is a fundamental principle of our democracy. In the last century, the spirit and benefits of scientific curiosity have propelled us from field to factory to cyberspace. But just as science can be a tremendous force for good, it can also be used to do harm.

The Internet can be a new town square – or it can be a new Tower of Babel. The same computer that can put the Library of Congress at our fingertips, can also be used by groups who are plotting division and violence. Will new breakthroughs in biology and genetics be used to bring us closer together or split us farther apart? The same knowledge that is developing new life-saving drugs can be used to create poisons of mass destruction. Science has no soul of its own. It is up to us to determine if ~~it~~ its manifestation in technology will be used as a force for good or evil was misused.

We know that in years past, too often science ~~mirrored the sickness of society at large~~. Here at one of America's great HBCUs, let me underscore what I said a few days ago at the White House. We must never allow our citizens to be unwitting guinea pigs in scientific experiments without their consent, that put them at risk -- whether it is the withholding of syphilis treatment from the black men of Tuskegee or the Cold War experiments that subjected some of our citizens to dangerous doses of radiation -- we must never allow those kinds of things to happen again. We must never go back to those awful days when eugenics and racial stereotyping here and in Europe resulted in discrimination and worse against those judged to be inferior. Our greatness is measured not only in how we do ~~right~~ things correctly but also in how we act when we know we've done the wrong thing; how we confront our mistakes, make our apologies and take action.

Science often moves faster than our ability to understand its implications. Each new discovery, each new breakthrough, creates a new maze of moral and scientific questions. We are only just beginning to figure out how to ~~answer those questions~~. But I believe we must start by applying ~~the same~~ sound principles ~~that have guided all the great religions and philosophies since the beginning of time~~. → simultaneously protect freedom of inquiry and responsibly govern science and technology.

First, science and its benefits must be directed towards making life better for all Americans, not just the privileged few. Lack of money or social status must never be a barrier to the benefits of technology and science. ~~Science that does not move us all forward is science that will hold us all back~~.

Second, technology must be used to enhance, not diminish the dignity of the

what we've done right ~~what we've done right~~ .... when we've done wrong

individual. Researchers and doctors have a responsibility to respect our privacy. ~~What they learn about us is nobody's business unless we say so.~~ and our right to make informed decisions about our own care.

Third, none of our discoveries, especially in the areas of genetics, should be used to label or discriminate against any group or individual. Increasing knowledge about the great diversity within the human species must not change the basic belief upon which our ethics, our government and our society are based: All men are created equal. Period. End of story.

And finally, we must always remember that science is not God. Our deepest truths remain outside the realm of science. We must temper our euphoria over the recent breakthrough in animal cloning with sobering attention to our most cherished concepts of faith and humanity. My own view is that each human life is unique, born of a miracle that reaches beyond laboratory science. I believe we must respect this profound gift and resist the temptation to replicate ourselves. But this is a decision no President should make alone. That is why I ~~have~~ asked our distinguished National Bioethics Advisory Commission, headed by President Harold Shapiro of Princeton, to conduct a thorough review of the legal and ethical issues raised by this new cloning discovery. They will give me their recommendations within the next few weeks.

So today, at the edge of this new century, let us pledge to learn more and do more in the realm of science. But let us also pledge to redouble our vigilance, to make sure that the science of the 21st Century serves our most enduring human values.

We must continue our commitment to science – by balancing our budget in a way that balances the need to increase our investments in science, technology and medical research. In the budget that I vetoed in 1995, money for research and development was actually reduced. At a time of intense international competition, when Japan and Europe each year increase their investments in research, cutting our science budget made as little sense as cutting the defense budget would have during the Cold War. The balanced budget agreement I reached with the leaders of Congress two weeks ago ~~funds the increase~~ maintained the support I requested for science and technology in my 1998 budget and reaffirms our long-term commitment in this important area. Last year, five of the eight Nobel Prize winners in science were Americans. We can all be proud. And we can be prouder still that every single one of them received help from the national government for their research. Their awards resulted from investments made over the past two decades or more. It is up to us, now, to assure that the stream of future scientific discoveries continues to flow.

We must commit to building on the advances we are making in medicine. Conquering disease can and must be our next great national mission.

this century

No disease has sown more fear than AIDS. But the strides we have made make it clear that the only way to win this struggle is with a ~~targeted~~ sustained investment of resources and technology.

Fifteen years ago, an AIDS diagnosis was thought to be a certain death sentence. But, we never accepted that judgment. We have fought back with knowledge, with compassion and with money to bring new hope and new life to people living with AIDS. And we are beginning to turn the tide. Recent advances in biomedical research, supported by NIH, have dramatically increased

the life expectancy of those with HIV.

and affordable

Now we can take the next step. A safe, ~~and~~ effective, AIDS vaccine is a global health imperative. More than 29 million men, women and children around the world have been infected with HIV. More than 3 million of these infections occurred in just the past year, with nearly 95% in the poorest parts of the world. Without an effective vaccine, AIDS will soon overtake tuberculosis and malaria as the leading infectious killer in the world. Even here in this country, where new and effective anti-HIV strategies are available, complacency is not an option. HIV is capable of mutating and becoming resistant to therapies and could well become even more dangerous. Only a truly effective anti-HIV vaccine can eventually ~~totally~~ eliminate the threat of AIDS.

Thirty-six years ago, President Kennedy looked to the skies and determined that the flag of peace and democracy, not war and tyranny must be the first to be planted on the moon.

Today, let us look within and step up to the challenge of our times -- a challenge with consequences far more immediate for the life and death of millions around the world. I believe this nation must build upon the great strides we have made in the exploration of the inner space of the human body and commit itself to developing a vaccine against AIDS within the next ten years. There are no guarantees; it will take energy, it will take focus, and, yes, it will take money. We are willing to commit the public resources necessary to see this to the end. If America commits to creating an AIDS vaccine within the next decade, we will do it.

repetitive

We must do what we can to reap the benefits of the scientific explosion. And we must also take steps, now, to prevent the worst abuses that can come from the new knowledge.

With stunning speed, scientists are now moving to unlock the secrets of our genetic code. Genetic testing has the potential to identify hidden genetic disorders and spur early treatment. But, it can also be used by insurance companies and others to discriminate and stigmatize groups of people. We know that in the 1970s some African Americans were denied health care coverage by insurers and jobs by employers because they were identified as sickle cell anemia carriers. We also know that the number one reason women refuse genetic testing for breast cancer is their fear that insurance companies may either refuse health care coverage for themselves or members of their families or charge excessively high premiums. We must put a stop to this. No insurer should be able to use genetic data to underwrite or discriminate against any American seeking health insurance. This should not just be a matter of principle, it should be a matter of law. In the coming days, I will send legislation to the Congress to prohibit insurance companies from using genetic screening information to determine premium rates or eligibility for health insurance.

susceptability to

by assuring that

Finally, we will only make sure that science serves the values of all Americans, if all Americans are given a chance to participate in science. There is a place for all of us at the table of science in the 21st century. ~~We cannot move forward without~~ the voices and talents of everyone in this stadium ~~and~~, especially those graduates who are going on to pursue careers in science and ~~technology~~ engineering. African Americans have always been ~~at~~ in the forefront of American science. Nothing -

must help us move forward

- not slavery, not discrimination, not poverty -- has ever been able to hold back the scientific urge or the creative genius of African Americans.

Benjamin Banneker was a self-taught mathematician/surveyor/astronomer, who published an annual almanac and helped design the city of Washington. George Washington Carver was born a slave, but went on to become one of this nation's greatest agricultural scientists. And Charles Drew lived through the darkest days of segregation to become a pioneer in blood preservation. African Americans will play an even greater role in science in the coming years. You will be the investigators, the doctors, and the scholars who will help keep our science rooted in our values.

Benjamin Banneker, who was born not far from here in Ellicott Mills, Maryland once said, "The color of the skin is in no ways connected with the strength of the mind or intellectual powers." His talent and tenacity were his tickets to success. They will be yours too.

Thank you and God bless you all.

The payoff of public investments in S&T argument could be strengthened somewhat.

Private sector inventions and products now being realized in areas of science and technology are a result of *public* sector risks and investments made in the 60's and 70's. Now, government must stake out future discoveries and possibilities for our grandchildren in the years 2040 to 2050. It is our collective responsibility to push the frontiers of science and technology to ensure that future generations of Americans will lead better lives in a better land. ~~These public investment in S&T will spark the initiative of private industry to produce products and services -- making these public investments pay off handsomely.~~

NY Times 5/15/97

The Leverage of Federal Research

An exhaustive study for the National Science Foundation has discovered that the novel ideas conceived by American patent holders depend far more on research paid for by government than on research paid for by private industry. The finding belies the glib assertion, heard often in Congress last year, that as private industry expands its research budget, Washington can scale back its research activities. The implication is that proposed cutbacks in Federal research would damage the economy.

Ten years ago, private industry and the Federal Government spent about the same amount on research and development. Today the Government still spends about $60 billion — much less if corrected for the cost of programs like weapons maintenance that do not add to scientific knowledge. Meanwhile, industry-funded research and development has soared to about $120 million. Yet the Government's relatively small research budget has produced big results. Research funded by government and nonprofit agencies accounts for over 70 percent of the scientific papers cited in the study's sample of recent patent holders.

One explanation for the disparity is that government, more often than business, pays for basic research — benefits from which spread throughout the economy, raising productivity. Industry spends its money on more narrow pursuits, like development of a specific product. Also, government and nonprofit researchers publish their findings early. Some industry research is suppressed to preserve proprietary advantage.

Spending on research and development contributes perhaps half of the growth in American living standards. Each dollar spent on basic research permanently adds 50 cents or more each year to national output — an impact that is many times larger than the permanent gains from increases in ordinary business investment. This latest study suggests that government and university-based research pack the biggest wallop. Even so, the Administration and Congress are working on budget plans that would cut Federal research by between 14 and 20 percent after accounting for inflation.

President Clinton ran for office in 1992 on an agenda of public investment. It was a good idea then. It is an even better idea now.

May 14, 1997

MEMORANDUM FOR CIRCULATION

FROM: MICHAEL WALDMAN
TERRY EDMONDS

SUBJECT: FIRST CUT AT MORGAN STATE SPEECH

Attached is a first draft of the Morgan State speech. We would appreciate any comments you have at your earliest convenience. (In particular, it would be very helpful to hear any initial, sketchy comments tonight -- our goal is to get a draft to the President late tomorrow.)

Please send comments to Terry Edmonds at x62499, room 192 OEOB.

DRAFT

5/14/97 4:00 pm

PRESIDENT WILLIAM J. CLINTON
COMMENCEMENT ADDRESS, MORGAN STATE UNIVERSITY
BALTIMORE, MARYLAND
MAY 18, 1997

Acknowledgments: Dr. Earl Richardson, President; Judge Harry Cole, board chair; Governor Glendening; Mayor Schmoke; elected officials – including city council, which voted to ban cigarette billboards near schools; Reps. Elijah Cummings, Ben Cardin; Sens. Sarbanes, Mikulski; Board of Regents; Faculty and staff; distinguished alumni: Judge Cole; Judge Robert Bell, Chief Judge of Maryland's highest court; Kweisi Mfume; Earl Graves; Richard Dixon, State Treasurer; Terry Edmonds, White House staff.

I am pleased to deliver my first commencement at an Historically Black University. In our past, when the doors of college were closed to all but white students, Morgan State and the nation's other HBCUs gave young African Americans the education they deserved and the pride they needed to rise above cruelty and bigotry. In our present, HBCUs produce the lion's share of our black doctors, judges, and businesspeople – and Morgan State graduates most of the black scientists and engineers in Maryland. And in our future, I am certain that HBCUs will play an even greater role in moving our country forward.

But, Morgan State is not just a great Historically Black University -- Morgan State is a great American university. You have produced some of this country's finest leaders. Not just the African American community, but our entire American community would be diminished without great Morgan grads like Parren Mitchell, Kweisi Mfume and Earl Graves. The halls of justice would be diminished without great judicial leaders like Judge Bell and Judge Cole. And without Morgan, I would never have had the good fortune to work with Terry Edmonds who, remarkably, is the first African American ever to serve as a presidential speechwriter.

All of you graduate today into a world brimming with promise and rich with opportunity. Today, and in speeches at several other graduations this spring, I want to talk about the challenge of preparing the American people for the stunning new century ahead.

We know that this new world will be smaller than ours is, as currents of commerce and communications link every nation in a truly global economy. We know that we will have to work harder than ever to make our diversity not a weakness, but our greatest strength.

And we know that above all else the 21st century, in its texture, in its promise and in its reality, will be molded by science, shaped by technology, powered by knowledge.

Over the past half century, we have seen mankind's greatest breakthroughs -- we have split the atom; microchips and lasers have transformed the way we live. For half a century, we struggled to harness these forces as powerful as the sun, in an effort to keep them from destroying

the planet. Today, at long last, nuclear and computer technology are realizing their greater value as servants of a better life, not masters of a bitter destruction. They are revolutionizing the way we communicate, helping save lives, providing healthier and safer foods, protecting our environment, improving transportation and making all our lives better.

If the last 50 years were the age of physics, the next 50 years will be the age of biology. We are now embarking on our most daring exploration ever -- unraveling the mysteries of our inner world and charting new routes to the conquest of disease. And our great challenge will be to harness the power of biology, our increasing knowledge about the cell, the brain and life itself so that we can reap the amazing benefits without sowing the seeds of our own destruction.

We have not, and we must not ever shrink from exploring the frontiers of science and basic knowledge, no matter where it leads us. But as we consider how to use the fruits of that knowledge, we must also never retreat from our commitment to human values, the good of society, and our basic sense of right and wrong. Today let us commit: in the 21st Century, science must serve humanity – never the other way around.

We enter that century propelled by new and exciting developments. In the past year alone, we saw the cloning of Dolly, the sheep. We learned that painless lasers can now do the work of hand-held drills in dentistry. The Hubble Telescope is bringing into focus dark corners of the cosmos never seen before. Scientists have found what they believe may be evidence of microscopic life on Mars. And last week, we saw a computer named Deep Blue, defeat the world's reigning chess champion. I hope they don't make a computer that can play golf.

In years to come this pace of change will only accelerate. Today, farmers are planting thousands of acres of plants genetically altered to produce plastic, which by 2003 ~~will~~ dramatically reduce our need for imported oil. Innovations in computer technology and communications are creating what Bill Gates calls the world's new "digital nervous system." Cures for our most dread diseases – diabetes, cystic fibrosis and Alzheimer's -- seem within reach. What was once the stuff of science fiction is now routine fact.

If we master these powerful forces, we will enrich our existence. These breakthroughs dazzle us not only because of their brilliance but because they offer a prospect for fuller, longer lives -- lives that are freed from the shackles of disease and ignorance that today enslave too many around the world.

If we master these forces, we will keep our economy the strongest in the world. Today, unemployment is the lowest it's been in more than two decades. Core inflation is at its lowest in three decades. And we have seen the highest decline in income inequality since the 1960s. But, as strong as our economy is, it will not sustain our leadership in the 21st century if we do not harness the forces of science and technology that have always led our progress. Where once nations measured their strength by the size of their armies, their arsenals and their GDPs, in the world of the future, it is knowledge that will matter most. Fully half the economic growth over the past half century can be traced to innovation and technology – and that share will only grow in

years ahead.

But more than our economy, more even than the benefits to our lives, this scientific revolution will lift the American spirit and let our imaginations take wing. A constant thirst for knowledge has been a defining part of our history. From the earliest pioneers to the men and women who explore our heavens, ours has been a restless quest of discovery. We have always believed, with Thomas Jefferson that freedom is "the firstborn daughter of science."

Human curiosity is the driving force behind all human discovery. We must do nothing to stifle our basic quest for knowledge. It is an essential part of what makes us human. It is a fundamental principle of our democracy. In the last century, the spirit and benefits of scientific curiosity have propelled us from field to factory to cyberspace. But just as science can be a tremendous force for good, it can also be used to do harm.

The Internet can be a new town square – or it can be a new Tower of Babel. The same computer that can put the Library of Congress at our fingertips, can also be used by groups who are plotting division and violence. Will new breakthroughs in biology and genetics be used to bring us closer together or split us farther apart? The same knowledge that is developing new life-saving drugs can be used to create poisons of mass destruction. Science has no soul of its own. It is up to us to determine if it will be used as a force for good or evil.

We know that in years past, too often science mirrored the sickness of society at large. Here at one of America's great HBCUs, let me underscore what I said a few days ago at the White House. We must never allow our citizens to be unwitting guinea pigs in scientific experiments without their consent, that put them at risk -- whether it is the withholding of syphilis treatment from the black men of Tuskegee or the Cold War experiments that subjected some of our citizens to dangerous doses of radiation -- we must never allow those kinds of things to happen again. We must never go back to those awful days when eugenics and racial stereotyping here and in Europe resulted in discrimination and worse against those judged to be inferior. Our greatness is measured not only in how we do right, but also in how we act when we know we've done the wrong thing; how we confront our mistakes, make our apologies and take action.

Science often moves faster than our ability to understand its implications. Each new discovery, each new breakthrough, creates a new maze of moral and scientific questions. We are only just beginning to figure out how to answer those questions. But I believe we must start by applying the same principles that have guided all the great religions and philosophies since the beginning of time.

First, science and its benefits must be directed towards making life better for all Americans, not just the privileged few. Lack of money or social status must never be a barrier to the benefits of technology. Science that does not move us all forward is science that will hold us all back.

Second, technology must be used to enhance, not diminish the dignity of the

individual. Researchers and doctors have a responsibility to respect our privacy. What they learn about us is nobody's business unless we say so.

Third, none of our discoveries, especially in the areas of genetics, should be used to label or discriminate against any group or individual. Increasing knowledge about the great diversity within the human species must not change the basic belief upon which our ethics, our government and our society are based: All men are created equal. Period. End of story.

And finally, we must always remember that science is not God. Our deepest truths remain outside the realm of science. We must temper our euphoria over the recent breakthrough in animal cloning with sobering attention to our most cherished concepts of faith and humanity. My own view is that each human life is unique, born of a miracle that reaches beyond laboratory science. I believe we must respect this profound gift and resist the temptation to replicate ourselves. But this is a decision no President should make alone. That is why I have asked our National Bioethics Advisory Commission, headed by President Harold Shapiro of Princeton, to conduct a thorough review of the legal and ethical issues raised by this new cloning discovery. They will give me their recommendations within the next few weeks.

So today, at the edge of this new century, let us pledge to learn more and do more in the realm of science. But let us also pledge to redouble our vigilance, to make sure that the science of the 21st Century serves our most enduring human values.

We must continue our commitment to science – by balancing our budget in a way that balances the need to increase our investments in science, technology and medical research. In the budget that I vetoed in 1995, money for research and development was actually reduced. At a time of intense international competition, when Japan and Europe each year increase their investments in research, cutting our science budget made as little sense as cutting the defense budget would have during the Cold War. The balanced budget agreement I reached with the leaders of Congress two weeks ago funds the increase I requested for science and technology in my 1998 budget and reaffirms our long-term commitment in this important area. Last year, five of the eight Nobel Prize winners in science were Americans. We can all be proud. And we can be prouder still that every single one of them received help from the national government for their research.

We must commit to building on the advances we are making in medicine. Conquering disease can and must be our next great national mission.

No disease has sown more fear than AIDS. But the strides we have made make it clear that the only way to win this struggle is with a targeted investment of resources and technology.

Fifteen years ago, an AIDS diagnosis was thought to be a certain death sentence. But, we never accepted that judgment. We have fought back with knowledge, with compassion and with money to bring new hope and new life to people living with AIDS. And we are beginning to turn the tide. Recent advances in biomedical research, supported by NIH, have dramatically increased

the life expectancy of those with HIV.

Now we can take the next step. A safe and effective AIDS vaccine is a global health imperative. More than 29 million men, women and children around the world have been infected with HIV. More than 3 million of these infections occurred in just the past year, with nearly 95% in the poorest parts of the world. Without an effective vaccine, AIDS will soon overtake tuberculosis and malaria as the leading infectious killer in the world. Even here in this country, where new and effective anti-HIV strategies are available, complacency is not an option. HIV is capable of mutating and becoming resistant to therapies and could well become even more dangerous. Only a truly effective anti-HIV vaccine can eventually totally eliminate the threat of AIDS.

Thirty-six years ago, President Kennedy looked to the skies and determined that the flag of peace and democracy, not war and tyranny must be the first to be planted on the moon.

Today, let us look within and step up to the challenge of our times -- a challenge with consequences far more immediate for the life and death of millions around the world. I believe this nation must build upon the great strides we have made in the exploration of the inner space of the human body and commit itself to developing a vaccine against AIDS within the next ten years. There are no guarantees; it will take energy, it will take focus, and, yes, it will take money. We are willing to commit the public resources necessary to see this to the end. If America commits to creating an AIDS vaccine within the next decade, we will do it.

We must do what we can to reap the benefits of the scientific explosion. And we must also take steps, now, to prevent the worst abuses that can come from the new knowledge.

With stunning speed, scientists are now moving to unlock the secrets of our genetic code. Genetic testing has the potential to identify hidden genetic disorders and spur early treatment. But, it can also be used by insurance companies and others to discriminate and stigmatize groups of people. We know that in the 1970s some African Americans were denied health care coverage by insurers and jobs by employers because they were identified as sickle cell anemia carriers. We also know that the number one reason women refuse genetic testing for breast cancer is their fear that insurance companies may either refuse health care coverage for themselves or members of their families or charge excessively high premiums. We must put a stop to this. No insurer should be able to use genetic data to underwrite or discriminate against any American seeking health insurance. This should not just be a matter of principle, it should be a matter of law. In the coming days, I will send legislation to the Congress to prohibit insurance companies from using genetic screening information to determine premium rates or eligibility for health insurance.

Finally, we will only make sure that science serves the values of all Americans, if all Americans are given a chance to participate in science. There is a place for all of us at the table of science in the 21st century. We cannot move forward without the voices and talents of everyone in this stadium and, especially those graduates who are going on to pursue careers in science and technology. African Americans have always been at the forefront of American science. Nothing -

- not slavery, not discrimination, not poverty -- has ever been able to hold back the scientific urge or the creative genius of African Americans.

Benjamin Banneker was a self-taught mathematician/surveyor/astronomer, who published an annual almanac and helped design the city of Washington. George Washington Carver was born a slave, but went on to become one of this nation's greatest agricultural scientists. And Charles Drew lived through the darkest days of segregation to become a pioneer in blood preservation. African Americans will play an even greater role in science in the coming years. You will be the investigators, the doctors, and the scholars who will help keep our science rooted in our values.

Benjamin Banneker, who was born not far from here in Ellicott Mills, Maryland once said, "The color of the skin is in no ways connected with the strength of the mind or intellectual powers." His talent and tenacity were his tickets to success. They will be yours too.

Thank you and God bless you all.

5/14/97 4:00 pm

PRESIDENT WILLIAM J. CLINTON
COMMENCEMENT ADDRESS, MORGAN STATE UNIVERSITY
BALTIMORE, MARYLAND
MAY 18, 1997

Acknowledgments: Dr. Earl Richardson, President; Judge Harry Cole, board chair; Governor Glendening; Mayor Schmoke; elected officials – including city council, which voted to ban cigarette billboards near schools; Reps. Elijah Cummings, Ben Cardin; Sens. Sarbanes, Mikulski; Board of Regents; Faculty and staff; distinguished alumni: Judge Cole; Judge Robert Bell, Chief Judge of Maryland's highest court; Kweisi Mfume; Earl Graves; Richard Dixon, State Treasurer; Terry Edmonds, White House staff.

I am pleased to deliver my first commencement at an Historically Black University. In our past, when the doors of college were closed to all but white students, Morgan State and the nation's other HBCUs gave young African Americans the education they deserved and the pride they needed to rise above cruelty and bigotry. In our present, HBCUs produce the lion's share of our black doctors, judges, and businesspeople – and Morgan State graduates most of the black scientists and engineers in Maryland. And in our future, I am certain that HBCUs will play an even greater role in moving our country forward.

But, Morgan State is not just a great Historically Black University -- Morgan State is a great American university. You have produced some of this country's finest leaders. Not just the African American community, but our entire American community would be diminished without great Morgan grads like Parren Mitchell, Kweisi Mfume and Earl Graves. The halls of justice would be diminished without great judicial leaders like Judge Bell and Judge Cole. And without Morgan, I would never have had the good fortune to work with Terry Edmonds who, remarkably, is the first African American ever to serve as a presidential speechwriter.

All of you graduate today into a world brimming with promise and rich with opportunity. Today, and in speeches at several other graduations this spring, I want to talk about the challenge of preparing the American people for the stunning new century ahead.

We know that this new world will be smaller than ours is, as currents of commerce and communications link every nation in a truly global economy. We know that we will have to work harder than ever to make our diversity not a weakness, but our greatest strength.

And we know that above all else the 21st century, in its texture, in its promise and in its reality, will be molded by science, shaped by technology, powered by knowledge.

(A) FROM NEXT PAGE

Over the past half century, we have seen mankind's greatest breakthroughs -- we have split the atom; microchips and lasers have transformed the way we live. For half a century, we struggled to harness these forces as powerful as the sun, in an effort to keep them from destroying

mention Genome project

the planet. Today, at long last, nuclear and computer technology are realizing their greater value as servants of a better life, not masters of a bitter destruction. They are revolutionizing the way we communicate, helping save lives, providing healthier and safer foods, protecting our environment, improving transportation and making all our lives better.

If the last 50 years were the age of physics, the next 50 years will be the age of biology. We are now embarking on our most daring exploration ever -- unraveling the mysteries of our inner world and charting new routes to the conquest of disease. And our great challenge will be to harness the power of biology, our increasing knowledge about the cell, the brain and life itself so that we can reap the amazing benefits without sowing the seeds of our own destruction.

We have not, and we must not ever shrink from exploring the frontiers of science and basic knowledge, no matter where it leads us. But as we consider how to use the fruits of that knowledge, we must also never retreat from our commitment to human values, the good of society, and our basic sense of right and wrong. Today let us commit: in the 21st Century, science must serve humanity – never the other way around.

We enter that century propelled by new and exciting developments. In the past year alone, we saw the cloning of Dolly, the sheep. We learned that painless lasers can now do the work of hand-held drills in dentistry. The Hubble Telescope is bringing into focus dark corners of the cosmos never seen before. Scientists have found what they believe may be evidence of microscopic life on Mars. And last week, we saw a computer named Deep Blue, defeat the world's reigning chess champion. I hope they don't make a computer that can play golf.

In years to come this pace of change will only accelerate. Today, farmers are planting thousands of acres of plants genetically altered to produce plastic, which by 2003 will dramatically reduce our need for imported oil. Innovations in computer technology and communications are creating what Bill Gates calls the world's new "digital nervous system." Cures for our most dread diseases – diabetes, cystic fibrosis and Alzheimer's -- seem within reach. What was once the stuff of science fiction is now routine fact.

If we master these powerful forces, we will enrich our existence. These breakthroughs dazzle us not only because of their brilliance but because they offer a prospect for fuller, longer lives -- lives that are freed from the shackles of disease and ignorance that today enslave too many around the world.

If we master these forces, we will keep our economy the strongest in the world. Today, unemployment is the lowest it's been in more than two decades. Core inflation is at its lowest in three decades. And we have seen the highest decline in income inequality since the 1960s. But, as strong as our economy is, it will not sustain our leadership in the 21st century if we do not harness the forces of science and technology that have always led our progress. Where once nations measured their strength by the size of their armies, their arsenals and their GDPs, in the world of the future, it is knowledge that will matter most. Fully half the economic growth over the past half century can be traced to innovation and technology – and that share will only grow in

years ahead.

But more than our economy, more even than the benefits to our lives, this scientific revolution will lift the American spirit and let our imaginations take wing. A constant thirst for knowledge has been a defining part of our history. From the earliest pioneers to the men and women who explore our heavens, ours has been a restless quest of discovery. We have always believed, with Thomas Jefferson that freedom is "the firstborn daughter of science."

Human curiosity is the driving force behind all human discovery. We must do nothing to stifle our basic quest for knowledge. It is an essential part of what makes us human. It is a fundamental principle of our democracy. In the last century, the spirit and benefits of scientific curiosity have propelled us from field to factory to cyberspace. But just as science can be a tremendous force for good, it can also be used to do harm.

The Internet can be a new town square – or it can be a new Tower of Babel. The same computer that can put the Library of Congress at our fingertips, can also be used by groups who are plotting division and violence. Will new breakthroughs in biology and genetics be used to bring us closer together or split us farther apart? The same knowledge that is developing new life-saving drugs can be used to create poisons of mass destruction. Science has no soul of its own. It is up to us to determine if it will be used as a force for good or evil.

We know that in years past, too often science mirrored the sickness of society at large. Here at one of America's great HBCUs, let me underscore what I said a few days ago at the White House. We must never allow our citizens to be unwitting guinea pigs in scientific experiments without their consent, that put them at risk -- whether it is the withholding of syphilis treatment from the black men of Tuskegee or the Cold War experiments that subjected some of our citizens to dangerous doses of radiation -- we must never allow those kinds of things to happen again. We must never go back to those awful days when eugenics and racial stereotyping here and in Europe resulted in discrimination and worse against those judged to be inferior. Our greatness is measured not only in how we do right, but also in how we act when we know we've done the wrong thing; how we confront our mistakes, make our apologies and take action.

Science often moves faster than our ability to understand its implications. Each new discovery, each new breakthrough, creates a new maze of moral and scientific questions. We are only just beginning to figure out how to answer those questions. But I believe we must start by applying the same principles that have guided all the great religions and philosophies since the beginning of time.

First, science and its benefits must be directed towards making life better for all Americans, not just the privileged few. Lack of money or social status must never be a barrier to the benefits of technology. Science that does not move us all forward is science that will hold us all back.

Second, technology must be used to enhance, not diminish the dignity of the

individual. Researchers and doctors have a responsibility to respect our privacy. What they learn about us is nobody's business unless we say so. // with

Third, none of our discoveries, especially in the areas of genetics, should be used to label or discriminate against any group or individual. Increasing knowledge about the great diversity within the human species must not change the basic belief upon which our ethics, our government and our society are based: All men are created equal. Period. End of story.

And finally, we must always remember that science is not God. Our deepest truths remain outside the realm of science. We must temper our euphoria over the recent breakthrough in animal cloning with sobering attention to our most cherished concepts of faith and humanity. My own view is that each human life is unique, born of a miracle that reaches beyond laboratory science. I believe we must respect this profound gift and resist the temptation to replicate ourselves. But this is a decision no President should make alone. That is why I have asked our National Bioethics Advisory Commission, headed by President Harold Shapiro of Princeton, to conduct a thorough review of the legal and ethical issues raised by this new cloning discovery. They will give me their recommendations within the next few weeks.

So today, at the edge of this new century, let us pledge to learn more and do more in the realm of science. But let us also pledge to redouble our vigilance, to make sure that the science of the 21st Century serves our most enduring human values.

We must continue our commitment to science – by balancing our budget in a way that balances the need to increase our investments in science, technology and medical research. In the budget that I vetoed in 1995, money for research and development was actually reduced. At a time of intense international competition, when Japan and Europe each year increase their investments in research, cutting our science budget made as little sense as cutting the defense budget would have during the Cold War. The balanced budget agreement I reached with the leaders of Congress two weeks ago funds the increase I requested for science and technology in my 1998 budget and reaffirms our long-term commitment in this important area. Last year, five of the eight Nobel Prize winners in science were Americans. We can all be proud. And we can be prouder still that every single one of them received help from the national government for their research.

We must commit to building on the advances we are making in medicine. Conquering disease can and must be our next great national mission.

No disease has sown more fear than AIDS. But the strides we have made make it clear that the only way to win this struggle is with a targeted investment of resources and technology.

Fifteen years ago, an AIDS diagnosis was thought to be a certain death sentence. But, we never accepted that judgment. We have fought back with knowledge, with compassion and with money to bring new hope and new life to people living with AIDS. And we are beginning to turn the tide. Recent advances in biomedical research, supported by NIH, have dramatically increased

the life expectancy of those with HIV.

Now we can take the next step. A safe and effective AIDS vaccine is a global health imperative. More than 29 million men, women and children around the world have been infected with HIV. More than 3 million of these infections occurred in just the past year, with nearly 95% in the poorest parts of the world. Without an effective vaccine, AIDS will soon overtake tuberculosis and malaria as the leading infectious killer in the world. Even here in this country, where new and effective anti-HIV strategies are available, complacency is not an option. HIV is capable of mutating and becoming resistant to therapies and could well become even more dangerous. Only a truly effective anti-HIV vaccine can eventually totally eliminate the threat of AIDS.

Thirty-six years ago, President Kennedy looked to the skies and determined that the flag of peace and democracy, not war and tyranny must be the first to be planted on the moon.

Today, let us look within and step up to the challenge of our times -- a challenge with consequences far more immediate for the life and death of millions around the world. I believe this nation must build upon the great strides we have made in the exploration of the inner space of the human body and commit itself to developing a vaccine against AIDS within the next ten years. There are no guarantees; it will take energy, it will take focus, and, yes, it will take money. We are willing to commit the public resources necessary to see this to the end. If America commits to creating an AIDS vaccine within the next decade, we will do it.

We must do what we can to reap the benefits of the scientific explosion. And we must also take steps, now, to prevent the worst abuses that can come from the new knowledge.

With stunning speed, scientists are now moving to unlock the secrets of our genetic code. Genetic testing has the potential to identify hidden genetic disorders and spur early treatment. But, it can also be used by insurance companies and others to discriminate and stigmatize groups of people. We know that in the 1970s some African Americans were denied health care coverage by insurers and jobs by employers because they were identified as sickle cell anemia carriers. We also know that the number one reason women refuse genetic testing for breast cancer is their fear that insurance companies may either refuse health care coverage for themselves or members of their families or charge excessively high premiums. We must put a stop to this. No insurer should be able to use genetic data to underwrite or discriminate against any American seeking health insurance. This should not just be a matter of principle, it should be a matter of law. In the coming days, I will send legislation to the Congress to prohibit insurance companies from using genetic screening information to determine premium rates or eligibility for health insurance.

Finally, we will only make sure that science serves the values of all Americans, if all Americans are given a chance to participate in science. There is a place for all of us at the table of science in the 21st century. We cannot move forward without the voices and talents of everyone in this stadium and, especially those graduates who are going on to pursue careers in science and technology. African Americans have always been at the forefront of American science. Nothing -

- not slavery, not discrimination, not poverty -- has ever been able to hold back the scientific urge or the creative genius of African Americans.

Benjamin Banneker was a self-taught mathematician/surveyor/astronomer, who published an annual almanac and helped design the city of Washington. George Washington Carver was born a slave, but went on to become one of this nation's greatest agricultural scientists. And Charles Drew lived through the darkest days of segregation to become a pioneer in blood preservation. African Americans will play an even greater role in science in the coming years. You will be the investigators, the doctors, and the scholars who will help keep our science rooted in our values.

Benjamin Banneker, who was born not far from here in Ellicott Mills, Maryland once said, "The color of the skin is in no ways connected with the strength of the mind or intellectual powers." His talent and tenacity were his tickets to success. They will be yours too.

Thank you and God bless you all.

(1)

Thirty six years ago, President Kennedy focused on the heavens. Now we must look around us, at our environment, and face up to one of the greatest challenges of our time -- global climate change. Human activities are dramatically altering the chemistry of our atmosphere, and this change is warming the planet. If unchecked, this warming will have significant consequences, leading to increases in floods, droughts, heat waves, and changed patterns of disease exposure. Climate change will also lead to disruption of the ecosystems on which we depend for food, clean air and water, and recreation. The nations of the world are engaged in negotiating a climate change treaty to take the first steps to bring this global problem under control. Solving the problem is crucial to future generations in all countries, and fortunately, it appears that there are solutions.

By far the most important is to fundamentally change our sources of our energy and to increase the efficiency with which they are used. The United States must do its part, and as the world's leader in technological innovation, we have a special responsibility. And so, I have ~~personally~~ requested my Committee of Advisors on Science and Technology to work with the Department of Energy to craft a strategy that meets both our energy and environmental needs over the next century. A visionary approach to our energy future can enhance U.S. competitiveness, improve energy security, and make us responsible stewards of the global environment.

5/14/97 4:00 pm

PRESIDENT WILLIAM J. CLINTON
COMMENCEMENT ADDRESS, MORGAN STATE UNIVERSITY
BALTIMORE, MARYLAND
MAY 18, 1997

Acknowledgments: Dr. Earl Richardson, President; Judge Harry Cole, board chair; Governor Glendening; Mayor Schmoke; elected officials – including city council, which voted to ban cigarette billboards near schools; Reps. Elijah Cummings, Ben Cardin; Sens. Sarbanes, Mikulski; Board of Regents; Faculty and staff; distinguished alumni: Judge Cole; Judge Robert Bell, Chief Judge of Maryland's highest court; Kweisi Mfume; Earl Graves; Richard Dixon, State Treasurer; Terry Edmonds, White House staff.

I am pleased to deliver my first commencement at an Historically Black University. In our past, when the doors of college were closed to all but white students, Morgan State and the nation's other HBCUs gave young African Americans the education they deserved and the pride they needed to rise above cruelty and bigotry. In our present, HBCUs produce the lion's share of our black doctors, judges, and businesspeople – and Morgan State graduates most of the black scientists and engineers in Maryland. And in our future, I am certain that HBCUs will play an even greater role in moving our country forward.

But, Morgan State is not just a great Historically Black University -- Morgan State is a great American university. You have produced some of this country's finest leaders. Not just the African American community, but our entire American community would be diminished without great Morgan grads like Parren Mitchell, Kweisi Mfume and Earl Graves. The halls of justice would be diminished without great judicial leaders like Judge Bell and Judge Cole. And without Morgan, I would never have had the good fortune to work with Terry Edmonds who, remarkably, is the first African American ever to serve as a presidential speechwriter.

All of you graduate today into a world brimming with promise and rich with opportunity. Today, and in speeches at several other graduations this spring, I want to talk about the challenge of preparing the American people for the ~~stunning~~ new century ahead.

We know that this new world will be smaller than ours is, as currents of commerce and communications link every nation in a truly global economy. We know that we will have to work harder than ever to make our diversity not a weakness, but our greatest strength.

And we know that above all else the 21st century, in its texture, in its promise and in its reality, will be molded by science, shaped by technology, powered by knowledge.

We enter ~~that~~ the next century propelled by new and exciting developments. In the past year alone, we saw the cloning of Dolly, the sheep. The Hubble Telescope is bringing into focus dark corners of the cosmos never seen before. Innovations in computer technology and

communications are creating what Bill Gates calls the world's new "digital nervous system." Cures for our most dread diseases – diabetes, cystic fibrosis and Alzheimer's -- seem within reach. And last week, we saw a computer named Deep Blue, defeat the world's reigning chess champion. I hope they don't make a computer that can play golf.

Over the past half century, we have seen mankind's greatest breakthroughs -- we have split the atom; microchips and lasers have transformed the way we live. For half a century, we struggled to harness these forces as powerful as the sun, in an effort to keep them from destroying the planet. Today, at long last, nuclear and computer technology are realizing their greater value as servants of a better life, not masters of a bitter destruction.

If the last 50 years were the age of physics, the next 50 years will be the age of biology. We are now embarking on our most daring exploration ever -- unraveling the mysteries of our inner world and charting new routes to the conquest of disease. And our great challenge will be to harness the power of biology, our increasing knowledge about the cell, the brain and life itself so that we can reap the amazing benefits without sowing the seeds of our own destruction.

Where once nations measured their strength by the size of their armies, their arsenals and their GDPs, in the world of the future, it is science and knowledge that will matter most. Fully half the economic growth over the past half century can be traced to innovation and technology. That is why we must fully embrace the promise of science to maintain our leadership in the high-tech global economy of the 21st century.

We have not, and we must not ever shrink from exploring the frontiers of science and basic knowledge, no matter where it leads us. But as we consider how to use the fruits of that knowledge, we must also never retreat from our commitment to human values, the good of society, and our basic sense of right and wrong. Today let us commit: in the 21st Century, science must serve humanity – never the other way around.

Today, America leads the world in science. It has always lead the world in science. And we must continue to lead the world in science. Ours is a nation defined by the great goals we set. Often these goals can seem beyond our reach. But with our will power, our resources and a great national effort, we have always met these goals.

Thirty-six years ago, President Kennedy looked to the skies and proclaimed that the flag of peace and democracy, not war and tyranny must be the first to be planted on the moon.

Today, let us look within and step up to the challenge of our times -- a challenge with consequences far more immediate for the life and death of millions around the world. I believe this nation must build upon the great strides we have made in the exploration of the inner space of the human body and commit itself to developing a vaccine against AIDS within the next ten years.

A vaccine for AIDS may sound like a vague hope -- but scientists tell me it is based on hard facts. We know we can do this because of all the progress we have made. Fifteen years ago,

an AIDS diagnosis was thought to be a certain death sentence. Today with breakthrough drugs and powerful new treatments, we have already greatly extended the lives of those with HIV. New treatments are so powerful that in theory they could completely eliminate the AIDS virus from the bodies of infected patients.

Now we can take the next step. Without an effective vaccine, AIDS will soon overtake tuberculosis and malaria as the leading infectious killer in the world. Even here in this country, where new and effective anti-HIV strategies are available, complacency is not an option. HIV is capable of mutating and becoming resistant to therapies and could well become even more dangerous. Only a truly effective anti-HIV vaccine can eventually totally eliminate the threat of AIDS.

We will meet this goal by building on the prorgess we have already made -- by using our understanding of how the AIDS virus attacks and grows and by tapping our new knowledge of how the human body works to ward off disease. To this end, I am announcing today that the National Institutes of Health will open a new AIDS Vaccine Laboratory. This will be America's nerve center in the search for a vaccine. We will be issuing new grants to private researchers around the country to help us achieve our goal. And this June, at the meeting of the industrial nations of the world that we are convening in Denver, I will challenge our allies to join with us and make an AIDS vaccine a priority for the scientific community around the world. There are no guarantees; it will take energy, it will take focus, and, yes, it will take money. We are willing to commit the public resources necessary to see this to the end. If America commits to creating an AIDS vaccine within the next decade, we will do it.

By leading the world in the next decade towards finding an AIDS vaccine, America will once again stand at the vanguard of the struggle to free ourselves and future generations from the shackles of disease and ignorance that today enslave too many around the world. This is just one example of the great advances that will be made possible by our focus on science and technology. In this and so man other ways, science will enrich our existence.

But just as science can be a tremendous force for good, it can also be used to do harm. Science often moves faster than our ability to understand its implications. Each new discovery, each new breakthrough, creates a new maze of moral and ethical questions.

The Internet can be a new town square – or it can be a new Tower of Babel. The same computer that can put the Library of Congress at our fingertips, can also be used as a recipe for bombbuilding by purveyors of hate. The same knowledge that is developing new life-saving drugs can be used to create poisons of mass destruction.

Science has no soul of its own. It is up to us to determine if it will be used as a force for good or evil.

Let me be clear: Human curiosity is the driving force behind all human discovery. We must do nothing to stifle our basic quest for knowledge. It is an essential part of what makes us

human. It is a fundamental principle of our democracy. In the last century, the spirit and benefits of scientific curiosity have propelled us from field to factory to cyberspace.

But, how we use the fruits of science and how we apply it to human endeavors is not properly the domain of science alone -- or scientists alone. I believe we must apply the same ethical and moral principles that have guided every religion and our great system of govermnent. I believe that

The first thing we must do is balance our budget in a way that balances the need to maintain our investments in science, technology and medical research. In the budget that I vetoed in 1995, money for research and development was actually reduced. At a time of intense international competition, when Japan and Europe each year increase their investments in research, cutting our science budget made as little sense as cutting the defense budget would have during the Cold War. The balanced budget agreement I reached with the leaders of Congress two weeks ago funds the increase I requested for science and technology in my 1998 budget and reaffirms our long-term commitment in this important area. Last year, five of the eight Nobel Prize winners in science were Americans. We can all be proud. And we can be prouder still that every single one of them received help from the national government for their research.

Second, science and its benefits must be directed towards making life better for all Americans, not just the privileged few. Lack of money or social status must never be a barrier to the benefits of technology. Science that does not move us all forward is science that will hold us all back. Science must not create a new line of separation between the haves and have nots -- those with and without the tools and understanding to learn technology. In the 21st century, the school that does not have the link to the Internet or the child who does not have access to a computer will be like the 18th century child without school books. That is why we are ensuring that every child in every school, no matter how rich or poor, will have the same access to technology.

We also know that in years past, too often science ~~mirrored the sickness of society at large.~~ was misused. Here at one of America's great HBCUs, let me underscore what I said a few days ago at the White House. We must never allow our citizens to be unwitting guinea pigs in scientific experiments without their consent, that put them at risk -- whether it is the withholding of syphilis treatment from the black men of Tuskegee or the Cold War experiments that subjected some of our citizens to dangerous doses of radiation -- we must never allow those kinds of things to happen again. We must never go back to those awful days when eugenics and racial stereotyping here and in Europe resulted in discrimination and worse against those judged to be inferior. Our greatness is measured not only in how we do right, but also in how we act when we know we've done the wrong thing; how we confront our mistakes, make our apologies and take action.

Third, none of our discoveries, especially in the areas of genetics, should be used to label or discriminate against any group or individual. Increasing knowledge about the great

diversity within the human species must not change the basic belief upon which our ethics, our government and our society are based: All men are created equal. Period. End of story.

With stunning speed, scientists are now moving to unlock the secrets of our genetic code. Genetic testing has the potential to identify hidden genetic disorders and spur early treatment. But, it can also be used by insurance companies and others to discriminate and stigmatize groups of people. We know that in the 1970s some African Americans were denied health care coverage by insurers and jobs by employers because they were identified as sickle cell anemia carriers. We also know that the number one reason women refuse genetic testing for breast cancer is their fear that insurance companies may either refuse health care coverage for themselves or members of their families or charge excessively high premiums. We must put a stop to this. No insurer should be able to use genetic data to underwrite or discriminate against any American seeking health insurance. This should not just be a matter of principle, it should be a matter of law. In the coming weeks, I will send legislation to the Congress to prohibit insurance companies from using genetic screening information to determine premium rates or eligibility for health insurance.

Fourth, Science should not be used to breakdown the wall of privacy free citizens are guaranteed in a free society.

Today, marketers can follow every aspect of our lives, from the first phone call we make to the time our security system says we have left the house, to the video camera at the toll booth and the charge slip we leave for lunch. Nothing about our daily lives will be private unless we strenthen by groups who are plotting division and violence. Will new breakthroughs in biology and genetics be used to bring us closer together or split us farther apart?

Second, technology must be used to enhance, not diminish the dignity of the individual. Researchers and doctors have a responsibility to respect our privacy. What they learn about us is nobody's business unless we say so.

And finally, we must always remember that science is not God. Our deepest truths remain outside the realm of science. We must temper our euphoria over the recent breakthrough in animal cloning with sobering attention to our most cherished concepts of faith and humanity. My own view is that each human life is unique, born of a miracle that reaches beyond laboratory science. I believe we must respect this profound gift and resist the temptation to replicate ourselves. But this is a decision no President should make alone. That is why I have asked our National Bioethics Advisory Commission, headed by President Harold Shapiro of Princeton, to conduct a thorough review of the legal and ethical issues raised by this new cloning discovery. They will give me their recommendations within the next few weeks.

So today, at the edge of this new century, let us pledge to learn more and do more in the realm of science. But let us also pledge to redouble our vigilance, to make sure that the science of the 21st Century serves our most enduring human values.

We must do what we can to reap the benefits of the scientific explosion. And we must also take steps, now, to prevent the worst abuses that can come from the new knowledge.

Finally, we will only make sure that science serves the values of all Americans, if all Americans are given a chance to participate in science. There is a place for all of us at the table of science in the 21st century. We cannot move forward without the voices and talents of everyone in this stadium and, especially those graduates who are going on to pursue careers in science and technology. African Americans have always been at the forefront of American science. Nothing -- not slavery, not discrimination, not poverty -- has ever been able to hold back the scientific urge or the creative genius of African Americans.

Benjamin Banneker was a self-taught mathematician/surveyor/astronomer, who published an annual almanac and helped design the city of Washington. George Washington Carver was born a slave, but went on to become one of this nation's greatest agricultural scientists. And Charles Drew lived through the darkest days of segregation to become a pioneer in blood preservation. African Americans will play an even greater role in science in the coming years. You will be the investigators, the doctors, and the scholars who will help keep our science rooted in our values.

Benjamin Banneker, who was born not far from here in Ellicott Mills, Maryland once said, "The color of the skin is in no ways connected with the strength of the mind or intellectual powers." His talent and tenacity were his tickets to success. They will be yours too.

Thank you and God bless you all.

SAMPLING OF MORGAN GRADUATES

NAME	DEGREE	CURRENT STATUS
Aning, Alexander	Ph.D., Metallurgical Engineering	Virginia Polytecnic University
Barry, Phillip	Ph.D., Physics	Los Alomos National Lab
Buck, Warren	Ph.D., Physics	Hampton
Clark, Carl	Ph.D., Physics	Morgan State University
Connelly, James	Ph.D., Physics	Western Maryland
Davis, Burton	Ph.D., Physics	AT&T
Harper, Charles	Ph.D., Physics	U. Of California at Hayward
Lockhart, Richard	Ph.D., Physics	University Professor, Morgan state University
Oliver, Frederick	Ph.D., Physics	Morgan State University
Williams, Conrad -'58	Ph.D., Physics	Morgan State University
Mukina, Charles	Ph.D., Materials Engineering	Michigan Technical University
Garrett, Melody	M.D.	Practicing physician, Virginia
Hoy, Deborah	M.D.	Practicing physician, Washington, D.C.
Stanley, William	M.D.	Practicing physician, New Jersey
Molette, Sekou	M.D.	Practicing physician, Detroit, Michigan
Whittaker, Joseph	Ph.D.	Faculty, Morehouse, School of Medicine
Johnson, Casonya '90	Ph.D.	Postdoctoral Fellow - Johns Hopkins University School of Medicine

Hughes, Cleo	Ph.D.	Faculty, Morgan State University
Moo-Young, Horace '91	Ph.D.	Professor, Lehigh University
Saunders, Elijah '56	M.D.	Cardiologist, University of Maryland
Robinson, Walker	M.D.	Neurosurgeon, University of Maryland
DeLauder, William	Ph.D.	President, Delaware State
Adams, Clara	Ph.D.	Vice President, Academic Affairs, Morgan State University
Shaw, Roosevelt	Ph.D.	University professor, Morgan State University
Randall, Louis	M.D.	Practicing physician
Young, Robert	Ph.D.	University professor, University of Delaware
Brunson, Don C. '87	Ph.D.	Postdoctoral student - Johns Hopkins University
Cane, Rudolph	M.D.	Practicing physician - Virginia
Brown, Alethia	Ph.D.	Dupont Chemical Company
Baylor, Charles	Ph.D.	Research scientist, Dupont Chemical Company

Waldman -
FYI. A memo from the NEC/OSTP science + tech staffers.
Kaplan

THE WHITE HOUSE
WASHINGTON

MEMORANDUM

To: Gene Sperling
Ann Lewis
John Podesta

From: Tom Kalil TK
Tim Newell

Re: Morgan State commencement speech

Date: May 7, 1997

Because this is one of the few speeches that the President is likely to give on science and technology this year, we think he needs to articulate a broad vision on the role that science and technology can play in achieving national goals. Below is a first cut at an outline.

I. Continuing the scientific and technological revolution and strong government support for research and technology is important for two fundamental reasons:

1. Our curiosity -- our quest to know more about ourselves and the world around us - is a very important part of what makes us human. At the same time, access to knowledge -- and the freedom to act on that knowledge -- is a fundamental principle of democracy, and our commitment to innovation is an important part of the American tradition.

2. Science and technology play an important role in virtually every important national goal - a growing, productive, high-wage economy; sustainable development and environmental stewardship; improved health care and quality of life; harnessing the Information Revolution; new opportunities for life-long learning for every American; and ensuring global stability/security.

II. The last century has seen remarkable scientific progress, propelling us from an agricultural economy to the information age. However, there is still a lot we don't know:

- How does the human brain work?

- What are the biological origins of life here on Earth, and possibly on other planets?

- How can we manufacture products in ways that minimize pollution, or discover cleaner, cost-effective sources of energy that do not contribute to global warming?

- How can we use our understanding of the human genome to cure previously incurable diseases?

- How can we translate oceans of raw data in to easily understandable information?

As we enter the 21st century, it is vital that we rededicate ourselves to the pursuit of knowledge and the frontiers of science and technology -- to achieve our national goals, and to continue to rejuvenate the American dream of a better life for our children.

III. It's very important to use technology in ways that support and reinforce our basic values and sense of community. Just because we can use technology to do X (cloning, genetic screening) does not mean that we should. Our decisions about how to use technology need to be guided by ethical principles, expert advice, and reasoned/democratic decision-making.

IV. Potential announcements:

Having articulated these grand challenges, the President obviously has to say what he is doing to advance these goals. Obviously, the Administration is constrained by the budget agreement; analysts estimate that the President's FY98 budget would reduce federal funding for R&D by 12 percent in real dollars between FY 1997 and 2002. Below are some possible announcements -- in addition to any announcement on health-related issues (e.g. diabetes, genetic screening legislation).

1. **National Prizes**

Prizes have historically played an important role in advancing technology. For example, New York hotel owner Raymond Orteig offered $25,000 as a prize for the first aviator to cross the Atlantic from New York to Paris, a prize that was won by Charles A. Lindbergh in 1927. The Department of Energy successfully used a "Golden Carrot" award to encourage companies to make more efficient refrigerators -- one of the largest consumers of electricity

The President could charge the National Academy of Sciences (or some other body) with identifying a series of prizes that would focus the most creative scientists, engineers, and entrepreneurs on making specific critical breakthroughs (e.g. cost-effective solar power). Funding for the prizes could come jointly from Federal, industry, and philanthropic sources.

2. **Harnessing the Information Revolution**

a. **Supercomputer-on-a-chip**

The Administration and the semiconductor industry have been exploring the possibility of co-funding a number of university-based "centers of excellence" in areas of semiconductor technology. These technologies will eventually allow semiconductor companies to put hundreds of millions or even billions of transistors on a single chip the size of one's fingernail. The potential applications are mind-boggling. As one semiconductor company noted:

> "With 125 million transistors on a chip, picture-phones, the proverbial Dick Tracy wrist computer, or computers that recognize speech and make intelligent decisions in the context of the speech, could be within the consumer's price range. Or, imagine an automated teller machine that can recognize the user's face or do fingerprint recognition, virtually eliminating the possibility of theft."

Although an agreement between the semiconductor industry and the Defense Department to fund 2 of the (potentially) 6 centers has been reached -- no formal announcement has been made. This model is also attractive because industry will invest $2-$3 dollars for every $1 of government spending.

b. **Next Generation Internet**

As part of the President's Next-Generation Internet initiative, NSF is close to announcing grants that would connect 35 universities to a high-speed network that will eventually be able to transmit all 30 volumes of the Encyclopedia Britannica in under a second. This network will allow top researchers in universities and National Labs from all over the country to work together -- contributing to the solutions to all of the "grand challenges" of science and engineering that the President has articulated.

c. **Ethical, legal and social implications of the Information Revolution**

As part of the Human Genome Project, the government funds research on the ethical, legal, and social implications of genome research. Similarly, the Administration established the National Bioethics Advisory Commission to consider broad ethical issues related to human biological research. There are no equivalent initiatives on the information and communications side -- although arguably the impacts on our economy, society and culture will be as great or greater.

A Proposal to Develop Morgan State University as a

REGIONAL CENTER FOR EDUCATING A DIVERSE STUDENT BODY IN THE SCIENCES, ENGINEERING, AND MATHEMATICS

MORGAN *State University*

Morgan State University was founded following the Civil War as a private institution. It became a public institution in 1939 and was renamed Morgan State College.

In 1975 the Maryland State Legislature elevated Morgan to University status and gave it the authority to confer doctoral degrees.

In 1988, as part of legislation restructuring Maryland's higher education system, the Legislature designated Morgan as "Maryland's Public Urban University" with the mission of offering undergraduate, graduate, and professional programs. Morgan also retained its independent governing authority.

Maryland's Public Urban University

Morgan historically has offered a wide variety of programs in the arts and sciences. In 1965, the campus was recognized by the Middle States Association as a model liberal arts institution.

The University is a comprehensive campus offering professional programs in addition to those in the arts and sciences. Professional programs include business, engineering, education, architecture, social work, and hospitality management.

The University offers programs through the doctorate in educational administration, history, and engineering. It recently received approval to offer doctoral programs in mathematics education and science education.

Morgan is one of the few historically black institutions nationally to offer a comprehensive range of academic programs as well as programs leading to the doctorate.

MORGAN *State University*

Morgan has grown rapidly during the past decade, a period of relatively stable enrollments for most campuses.

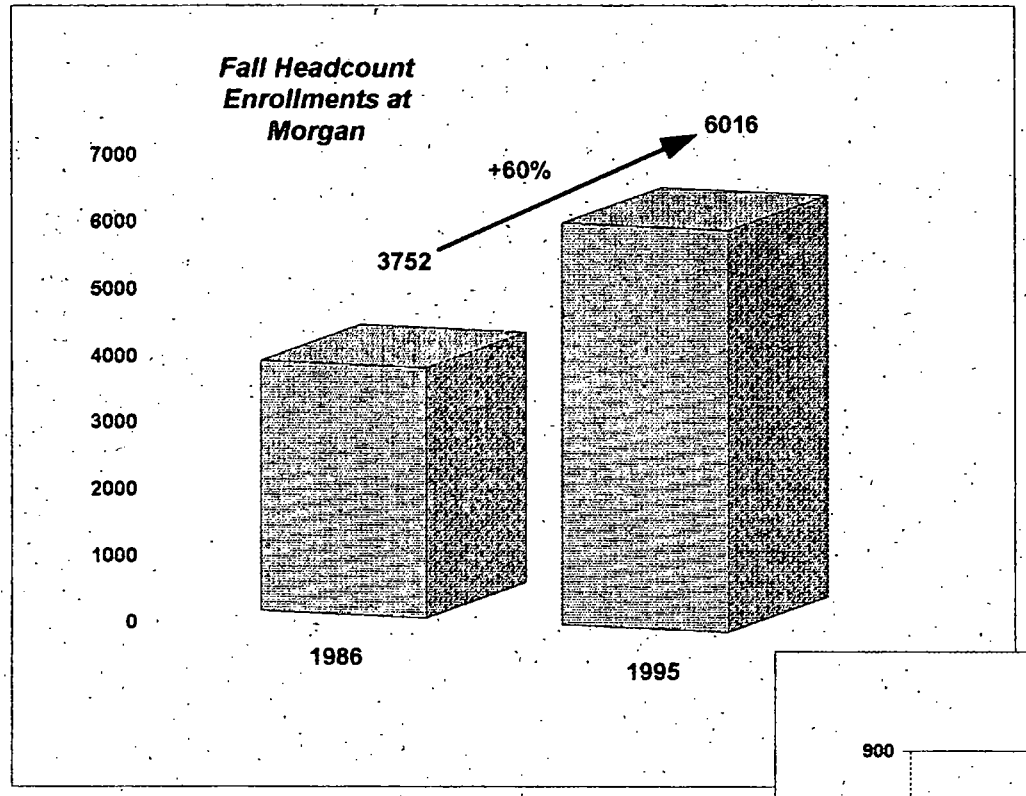
Enrollments are 60% higher than ten years ago.

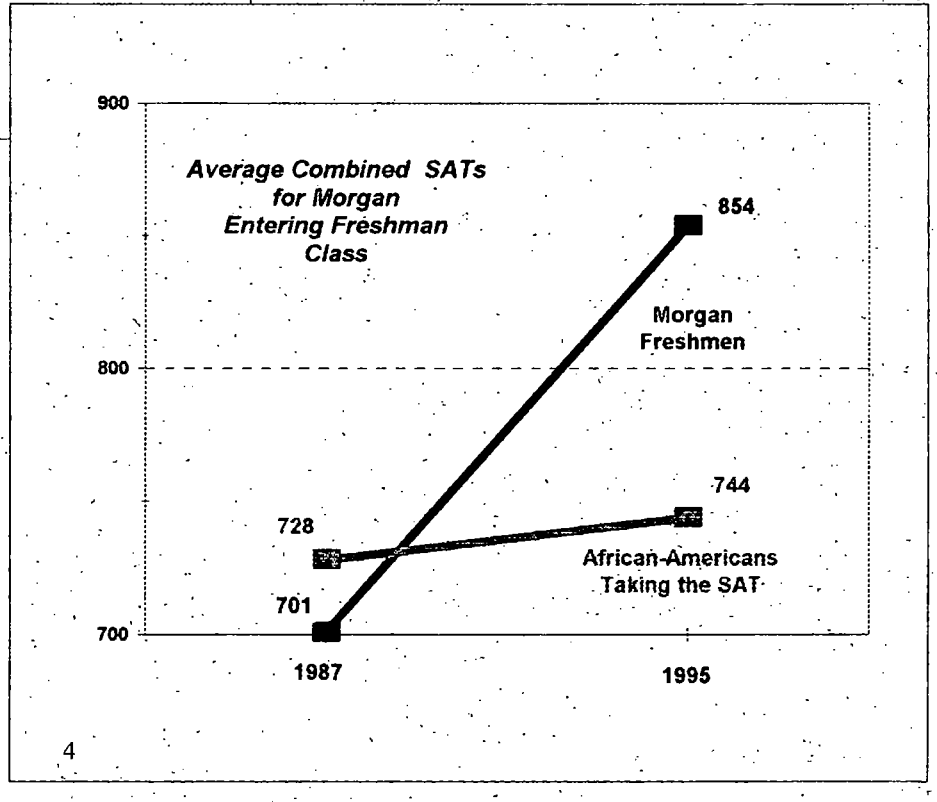
The University ranks among the top ten campuses nationally in freshman applications received from African-Americans.

The academic qualifications of entering freshmen have increased substantially at the same time that enrollments have been growing.

Average SAT scores of Morgan freshmen currently are between the 70th and 80th percentile of African-Americans taking the SAT.

Maryland's Public Urban University


Fall Headcount Enrollments at Morgan
7000
6000
5000
4000
3000
2000
1000
0
3752
+60%
6016
1986
1995


900
800
700
Average Combined SATs for Morgan Entering Freshman Class
854
Morgan Freshmen
744
728
African-Americans Taking the SAT
701
1987
1995

MORGAN *State University*

Morgan awards more bachelor's degrees to black students than any campus in Maryland.

Morgan consistently ranks among the top campuses nationally in the number of black bachelor's degree recipients who subsequently receive doctorates.

Its graduates attend graduate and professional schools at rates above state averages for students of all races.

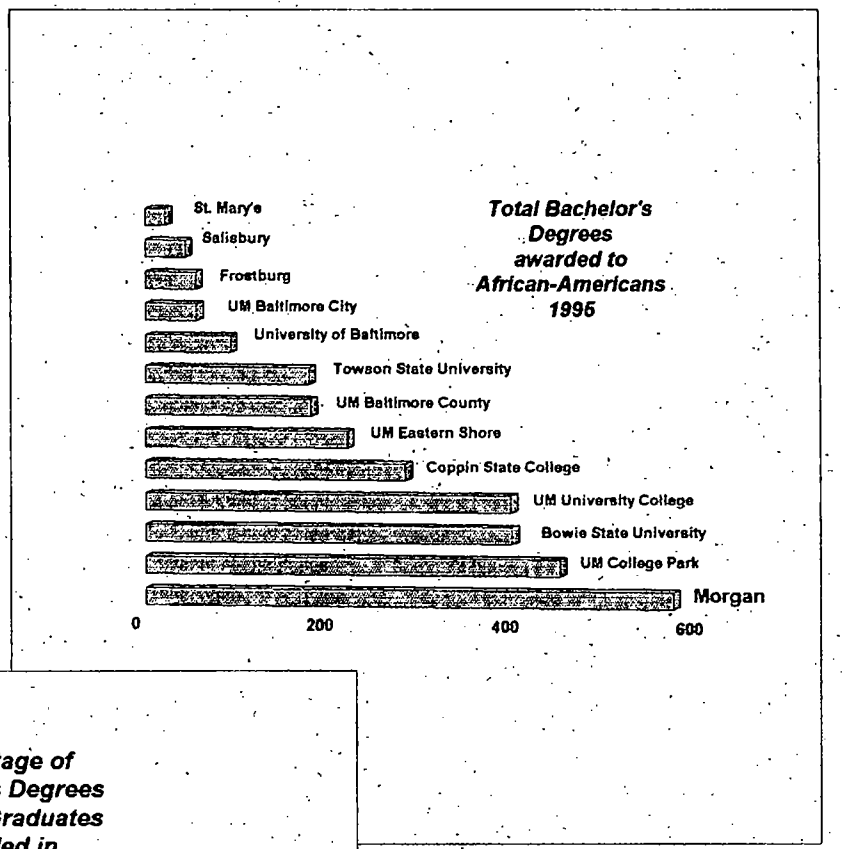
The University also leads all campuses in the state in the number of degrees awarded to black students in the sciences, engineering, and mathematics, accounting for about one-third of all such awards by Maryland campuses. It also leads all campuses in the share of its total awards to blacks that are in SEM fields.

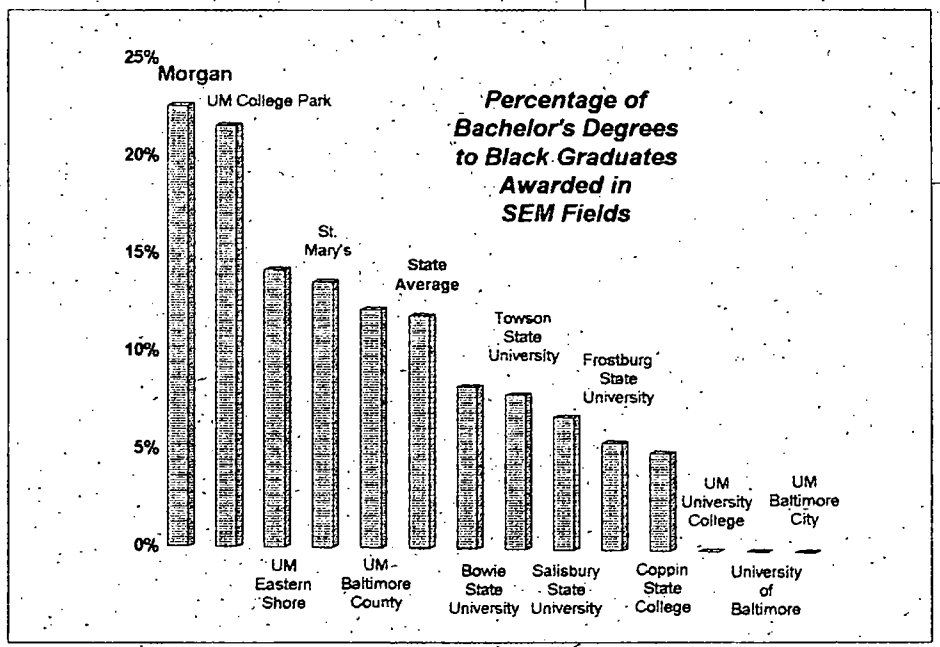
Historically, about half of Morgan's SEM degrees have been awarded to women. The current statewide average is 38%.

Maryland's Public Urban University

BACHELOR'S DEGREES AWARDED TO AFRICAN-AMERICANS BY MD PUBLIC CAMPUSES - 1995

	All Fields	SEM Fields	SEM as % of Total
Morgan State University (HBCU)	572	129	22.6%
UM College Park	449	97	21.6%
Bowie State University (HBCU)	397	33	8.3%
UM University College	396	0	0.0%
Coppin State College (HBCU)	282	14	5.0%
UM Eastern Shore (HBCU)	219	31	14.2%
UM Baltimore County	180	22	12.2%
Towson State University	178	14	7.9%
University of Baltimore	93	0	0.0%
UM Baltimore City	56	0	0.0%
Frostburg State University	55	3	5.5%
Salisbury State University	44	3	6.8%
St. Mary's College of Maryland	22	3	13.6%
Total	2943	349	11.9%





DEGREES IN THE SCIENCES, ENGINEERING, AND MATHEMATICS IN MARYLAND - 1995
Awards to African Americans

Bachelor's Degrees Awarded by Campus and Discipline

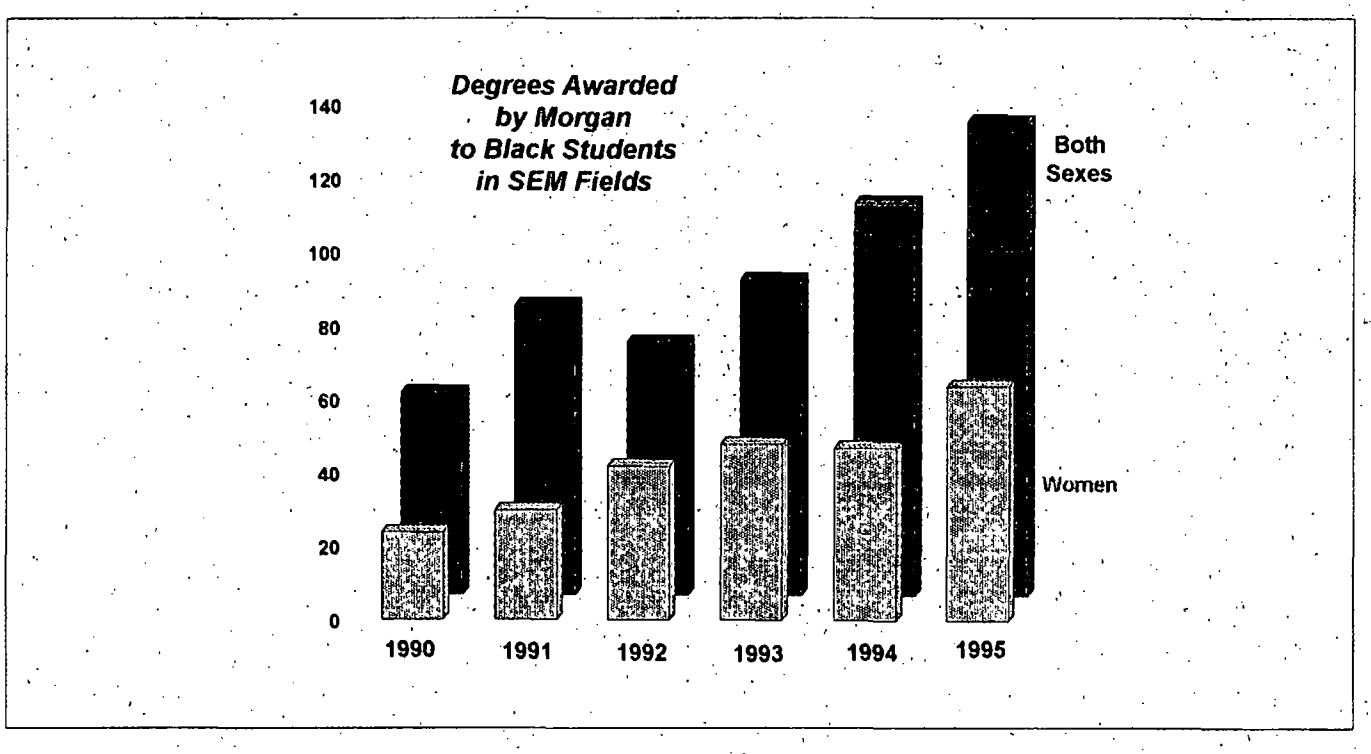
	Biological Sciences	Computer Science	Engineering	Mathematics	Physical Sciences	Total
Public						
Bowie State College (HBCU)	11	14		8		33
Coppin State College (HBCU)	5	2		5	2	14
Frostburg State University	1	2				3
Salisbury State University	3					3
Towson State University	7	4		3		14
UM Baltimore County	6	2	4	8	2	22
UM College Park	39	6	45	3	4	97
UM Eastern Shore (HBCU)	15	9	2	3	2	31
Morgan State University (HBCU)	**26**	**16**	**67**	**2**	**18**	**129**
St. Mary's College of MD	2			1		3
Private						
Capitol Institute of Technology			13			13
Columbia Union College	1					1
Hood College	2			1		3
Johns Hopkins University	4	1	8			13
Loyola College	1					1
Mt. St. Mary's college	1					1
Statewide Total	124	56	139	34	28	381
Morgan's Share of Bachelor's Degrees Awarded to Blacks in MD in SEM Field	**21.0%**	**28.6%**	**48.2%**	**5.9%**	**64.3%**	**33.9%**

Note: Morgan accounted for 17.4% of all bachelor's degrees awarded to black students in Maryland in 1995

Source: Maryland Higher Education Commission

BACHELOR'S DEGREES AWARDED IN SCIENCE, ENGINEERING, AND MATHEMATICS BY MORGAN
Awards to African Americans

	1990	1991	1992	1993	1994	1995	# Change	% Change
Biology	11	14	13	20	21	26		
Computer Science	5	11	9	9	15	16		
Civil Engineering	4	9	4	7	14	13		
Electrical Engineering	13	21	12	22	34	43		
Industrial Engineering	3	7	9	6	4	11		
Mathematics	6	2	4	9	7	2		
Physics	4	2	1		3	2		
Engineering Physics	3	3	4	3	2	3		
Chemistry	6	10	13	10	7	13		
Total	55	79	69	86	107	129	74	134.5%
SEM Degrees Awarded to Women	24	30	42	48	47	64	40	166.7%
% of SEM Degrees to Women	43.6%	38.0%	60.9%	55.8%	43.9%	49.6%		



ENROLLMENT FOR ADVANCED EDUCATION
Bachelor's Degree Recipients of 1993 - One Year Later

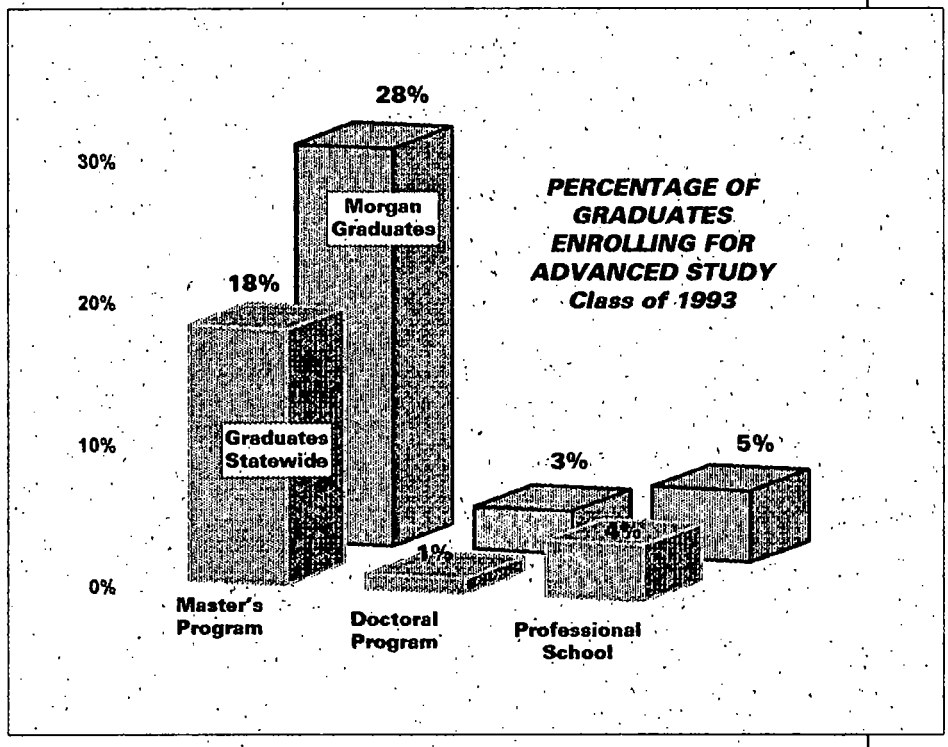
PERCENT OF GRADUATES ENROLLED FOR AN ADVANCED DEGREE

Morgan	36%
All Graduates Statewide	24%

PERCENT OF GRADUATES BY TYPE OF ADVANCED PROGRAM

	Master's	Doctoral	Prof.	Other
Morgan	28%	3%	5%	1%
All Graduates/All Campuses	18%	1%	4%	1%

Source: Maryland Higher Education Commission, August, 1995



RELATION OF ADVANCED PROGRAM TO UNDERGRADUATE PROGRAM

	Same	Related	Different
Morgan	38%	47%	16%
All Graduates/All Campuses	36%	48%	16%

RATING OF UNDERGRADUATE PREPARATION FOR ADVANCED STUDY

	Excellent	Good	Satisfactory
Morgan	34%	40%	21%
All Graduates/All Campuses	28%	48%	20%

MORGAN *State University*

Morgan is positioned for strong enrollment growth over the next decade.

State demographic trends are very favorable.

35% of public school students in the state are African-American.

Maryland high school graduates will be growing rapidly - at about twice the national rate of increase.

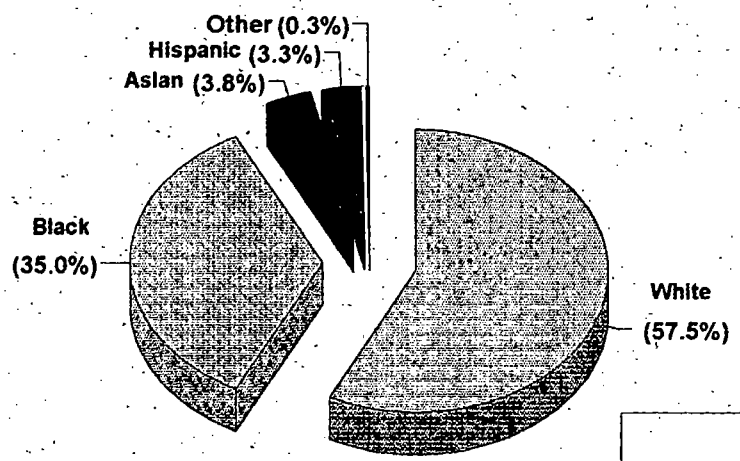
The University has a comprehensive range of attractive academic programs at the undergraduate and graduate levels.

The University attracts a substantial share of its enrollments from the populous states north of Washington, D.C. Maryland, Pennsylvania, New York, and New Jersey together account for more than one fifth of the Nation's African-American population.

The State of Maryland has invested heavily in new and renovated facilities for the campus. The University now has both high quality facilities and sufficient capacity for growth.

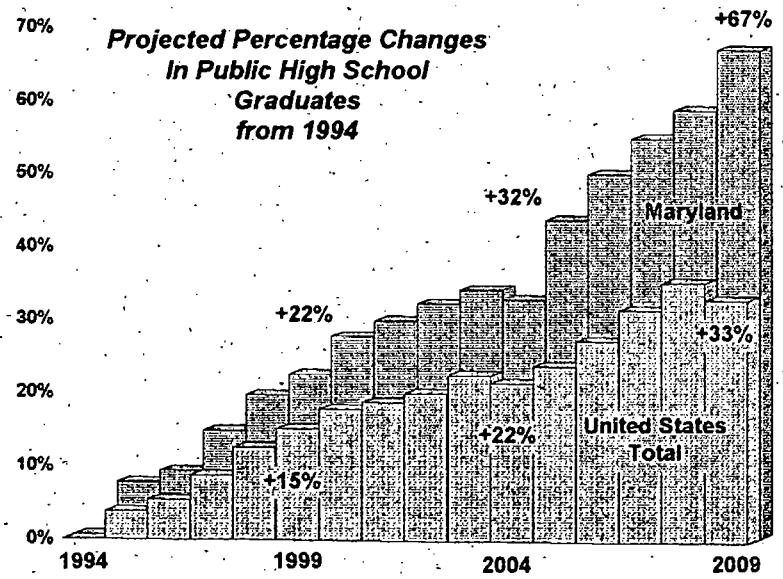
Maryland's Public Urban University

MARYLAND PUBLIC SCHOOL ENROLLMENTS - 1995



Source: Maryland State Department of Education

Projected Percentage Changes In Public High School Graduates from 1994

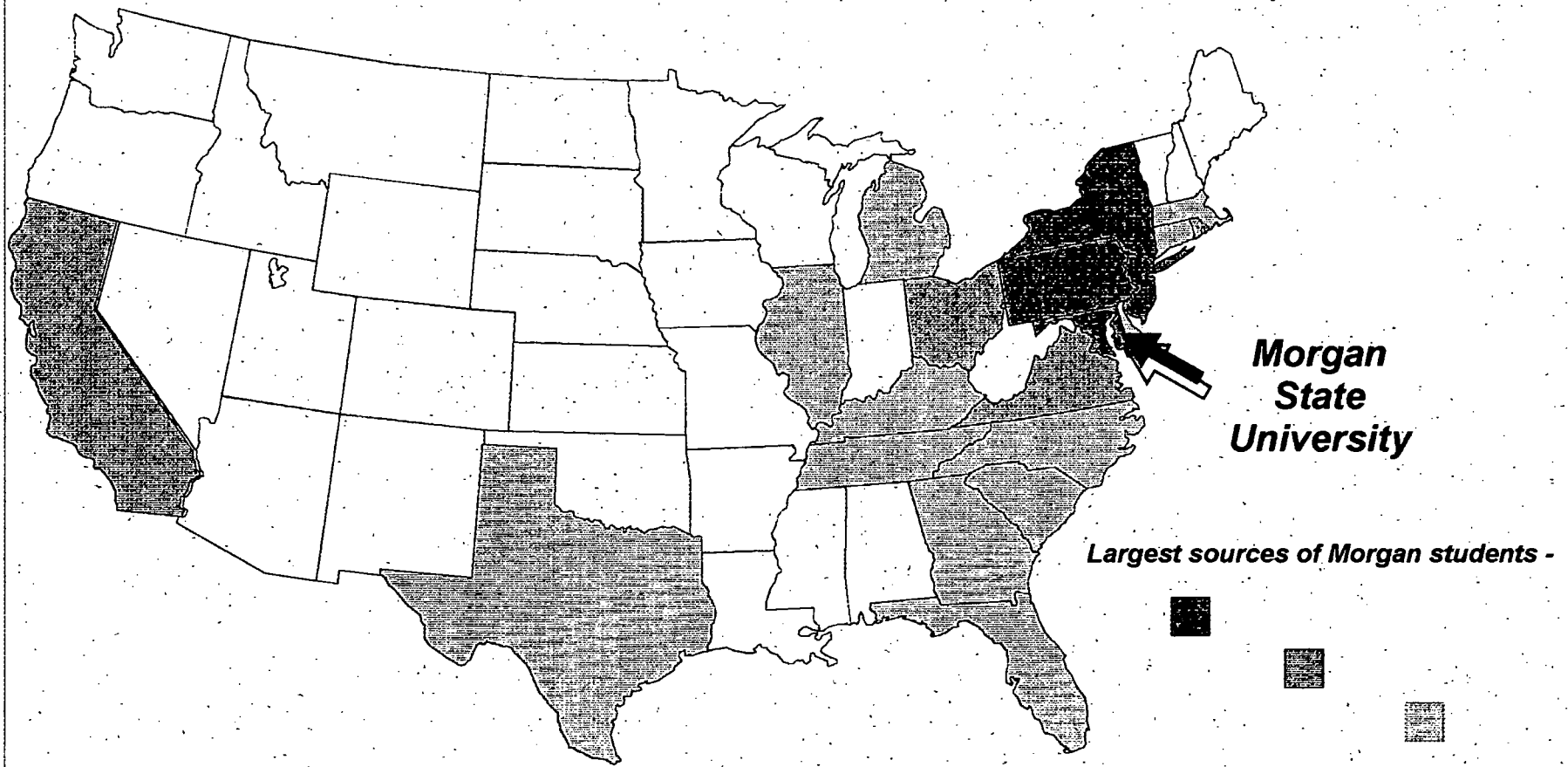


Source: "High School Graduates," The College Board, TIAA, Wiche, 1994.

Morgan is the only public comprehensive historically black university in the Washington, D.C. - New York corridor and the only comprehensive HBCU, public or private, north of Washington, D.C.

Morgan attracts students from all 50 states and numerous foreign countries. Over 35% of its students come from outside the state of Maryland.

Applications for freshman admission to Morgan have tripled during the past decade. The University now receives 50% more applications from residents of other states than from residents of Maryland.



MORGAN *State University*

Morgan is well positioned to become a major regional center for educating African-Americans and women in the sciences, engineering, and mathematics.

The University has excellent access to a large regional pool of young African-Americans who have only limited access to an historically black institution with programs in SEM fields.

The campus has state-of-the-art science and engineering facilities and equipment. An additional building for engineering is slated for construction in the near future.

The University already is a leader in awarding degrees to black students and women in general as well as in SEM fields.

Morgan's operating costs per student are relatively low due to state support. Hence, small increases in funding can achieve significant changes in degree production in SEM fields.

Morgan's key programs are accredited or otherwise recognized for meeting appropriate national standards.

Maryland's Public Urban University

PROGRAM MAJORS IN SEM FIELDS
Morgan State University

Program	Program Majors: 1990	1991	1992	1993	1994	1995	# Change	% Change
Biology	127	153	235	334	408	404	**277**	**218.1%**
Computer Science	143	175	179	174	167	184	**41**	**28.7%**
Civil Engineering	114	134	164	190	190	218	**104**	**91.2%**
Electrical Engineering	296	338	374	444	432	457	**161**	**54.4%**
Industrial Engineering	61	62	100	103	109	108	**47**	**77.0%**
Mathematics	38	43	48	46	48	58	**20**	**52.6%**
Physics/Engineering Physics	11	16	22	22	16	22	**11**	**100.0%**
Chemistry	128	168	154	134	125	116	**-12**	**-9.4%**
Total SEM Program Majors	**918**	**1,089**	**1,276**	**1,447**	**1,495**	**1,567**	**649**	**70.7%**
Total Undergraduate Enrollment	4,163	4,542	4,914	5,261	5,356	5,601	**1,438**	**34.5%**
Non-Sem/Undeclared Undergraduates	3,245	3,453	3,638	3,814	3,861	4,034	**789**	**24.3%**
SEM Majors as % of Undergraduates	**22.1%**	**24.0%**	**26.0%**	**27.5%**	**27.9%**	**28.0%**		

To increase the output of degrees in SEM fields, Morgan proposes to undertake improvements in four major interrelated areas.

The University's Student Support Environment
$ 725,000 Annually

The SEM Curriculum
$ 416,000 Annually

Student Financial Aid
$160,000 Annually

Campus SEM-Related Operational Infrastructure
$ 1,200,000 Annually

Estimated Average Annual Cost - $2.5 Million

Research has identified a supportive academic environment is a major factor influencing the graduation rates and academic performance of African-American students in college.

The University proposes to add full-time faculty in its SEM departments to reduce average class size in key freshman and sophomore classes, provide students with better access to faculty outside of class for advisement and academic help, and provide enough staffing flexibility to undertake some enhancements of the SEM curriculum.

The University has an extensive peer tutoring program that will be more effective with better scheduling and improved coordination with SEM departments.

The University proposes to develop a summer pre-college program for incoming SEM majors to enhance their academic skills, reinforce their motivation to pursue an SEM major, and ease their adjustment to college life.

MORGAN *State University*

Lack of adequate financial aid is a major cause of attrition and poor academic performance by lower income students. Research shows that on-campus employment and involvement in campus activities are positively related to graduation rates.

Morgan proposes a system of financial aid for SEM students that would also strengthen their relationship to their major departments and enhance their undergraduate experiences.

Part-time employment opportunities within academic departments would permit SEM students to interact with faculty and other students on an informal basis and to contribute to departmental operations.

Undergraduate research stipends would allow students to assist faculty in their research, gain a better understanding of their major disciplines, and prepare for graduate or professional school.

Maryland's Public Urban University

The University proposes to improve the operations of its SEM departments and related activities to better serve students and increase the quality of the services they provide.

The operations of SEM Departments would be improved by -

- *Adding laboratory assistants and administrative aides;*
- *Increasing budgets for equipment, supplies and materials;*
- *Supporting more opportunities for faculty development;*
- *Providing seed money for new faculty to begin research.*

The library would increase its collection of SEM materials.

Computer access for the campus would be improved by -

- *Evaluating and "tuning" the University's already extensive computer backbone;*
- *Establishing a program for renting personal computers to SEM students.*

The University proposes to make specific changes to its curriculum to enhance the educational experiences of its SEM students.

Undergraduates will be provided with more opportunities to carry out research under the direction of faculty.

Seminars for SEM students and faculty will be sponsored on a regular basis. These seminars will focus primarily on practical applications of knowledge and the relationships among different disciplines.

Increased opportunities will be made available to SEM seniors to carry out applied projects under the direction of faculty.

Increased emphasis will be placed on securing internships for SEM students. Internships will be centrally coordinated for SEM students.

U.S. DEPARTMENT OF EDUCATION
White House Initiative on Historically Black Colleges and Universities
600 Independence Avenue, S.W.
The Portals Building, Suite 605
Washington, DC 20202-5120
Phone (202)708-8667
Fax (202) 708-7872

FAX TRANSMISSION

To: Terry Edmonds

Date: 5-15-97

Company:

Fax: 456-5709

From: Catherine LeBlanc

IF RE-TRANSMISSION IS NECESSARY, PLEASE CALL THIS OFFICE IMMEDIATELY

Message: Terry, suggested talking points for the Morgan Commencement

Hard Copy Will Be Sent Under Separate Cover: Yes ____ No__

SUGGESTED TALKING POINTS, MORGAN STATE UNIVERSITY COMMENCEMENT

Dr. Earl Richardson, President of the University, has been a strong supporter of the Administration's educational initiatives and a very active advisor to the U.S. Department of Education as the former chairman of the National Association for Equal Opportunity in Higher Education (NAFEO - the association of all historically black colleges), and as a member of the President's Board of Advisors on Historically Black Colleges and Universities.

Under Dr. Richardson's leadership, Morgan has experienced unprecedented growth and has risen to national prominence as a major producer of African American graduates in the sciences, engineering, business and education. The University produces a significant number of Fulbright Scholars as well as students who pursue the doctorate degree.

Morgan's success in graduating large numbers of African American baccalaureates in the sciences and engineering is derived from the same formula for success employed at other historically black colleges and universities: they provide a supportive, nurturing academic and social environment, which, when merged with high expectations for achievement and the presence and influence of accomplished role models of color, produce a blossoming of intellectual promise untapped by some of the more traditional approaches to teaching and learning.

Morgan, like other historically black colleges, has benefitted significantly from the strongest Executive Order ever issued on black colleges. Working closely with agencies like the U.S. Departments of Energy and Transportation, Morgan has been able to expand and enhance its research and curriculum offerings for students and faculty.

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. speech	Speech fragment (partial, handwritten note) (1 page)	02/02/97	P6/b(6)

COLLECTION:
Clinton Presidential Records
Speechwriting
Terry Edmonds
OA/Box Number: 10987

FOLDER TITLE:
Morgan State Drafts & Info. [3]

2006-0462-F
ry667

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

. . . . . Because Maryland is such a diverse state, its educational challenges and successes provide the rest of the Nation with insight into our educational future. While I am sure there a variety of examples that can be cited, one with which I am familiar is the type of partnership that I think we should encourage in the future. It is the Baltimore Urban Systemic Initiative. This program, which is under the leadership of Morgan State University, Maryland's Public Urban University and one of the Nation's premier historically black institutions, is a comprehensive effort to improve how science and mathematics are taught and learned in the Baltimore City public schools. Beyond Morgan and the school system, it involves other colleges and universities in the region, the business community, and scientific organizations in the area. This program gets its support through a major grant from the National Science Foundation. This represents an example of how the federal government can help states and localities improve the way in which they deliver educational services.

Doug Morales

jointly administered by - morgan + Balto City Schools

Dr. Earl Richardson - President - Morgan State University 410-319-3589

(b)(6) home

[001]

Thanks,

largest urban Community

Asst. Dir for Ed + Human Resources Math + Science K-12 standards-based Terry every grade level Technology for all Students

substantially impact urban American

Lathen Williams NSF - 306-1690-

Pierce Hammond 703-306-1601 301-468-6922

- Creating a network of community development banks and financial institutions in low and moderate-income communities which leverages $10 of private investment for every $1 of federal investment. With $50 million appropriated for 1995 and $1.625 billion requested in the President's budget proposal for the next seven years, matching capital and other assistance will be provided to create and expand community development banks and financial institutions. (Community Development Banks and Financial Institutions Fund)
- Made the Low-Income Housing Tax Credit and Mortgage Revenue Bond Program permanent increasing opportunities for affordable housing development by the private sector.
- Reformed the Community Reinvestment Act to focus on performance -- actual lending, investments and basic banking services -- rather than paperwork. The reforms will unleash billions in new credit to low- to moderate-income communities.

• **Leaving Our Environment Safe and Clean for the Next Generation**:
- Issued an Executive Order on Environmental Justice, ensuring that low income citizens and minorities do not suffer a disproportionate burden of industrial pollution.
- Identified 20 environmental justice pilot projects to be undertaken across the country to redevelop contaminated sites in low-income communities and turn them into useable space, creating jobs and enhancing community development.
- Launched a Brownfields Initiative to return land to productive use by providing tax incentives to clean-up old industrial waste sites.
- Completed nearly as many toxic waste site clean ups in each of the past two years as were completed in the previous 10 years. Fought Republican Congressional attempts to gut the Superfund law that makes polluters -- rather than taxpayers -- pay to clean up toxic dumps.

• **Maintaining America's Leadership in the Fight for Freedom and Peace**:
- Restored democracy to Haiti, enabling the first transfer of power from one democratically elected president to another in Haitian history.
- Assisted South Africa's transition to democracy, providing support for elections and development.
- Hosted the first White House Conference on Africa in July 1994.

July 1996

MORGAN STATE UNIVERSITY

BALTIMORE, MARYLAND 21239

OFFICE OF THE PRESIDENT

(410-319-3200)

May 2, 1997

Mr. Ben Johnson
Deputy Assistant to the President
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20502

Dear Mr. Johnson:

Please find enclosed the information you requested concerning the history, notable features, and distinguished alumni of Morgan State University. Also included in the enclosure is a listing of some of the means by which Morgan is supporting the President's National Priorities.

Do not hesitate to contact me if you require additional information.

Sincerely,

Earl S. Richardson
President

Morgan State University

History

The University traces its beginnings to the 1860s when it was founded as the Centenary Biblical Institute for the purpose of educating men for the ministry. As it broadened its mission, it changed its name to Morgan College in honor of the Reverend Lyttleton Morgan, the first Chairman of its Board of Trustees.

It remained a private institution until 1939 when was purchased by the State in response to a study that found that the state needed to provide more higher education opportunities for African-Americans. It remained a comprehensive liberal arts institution upon entering the state system, making it and the University of Maryland College Park the only two public campuses in Maryland with a mission beyond that of training teachers.

In 1975 the Legislature designated Morgan as a university, with the mission of awarding degrees through the doctorate. At the same time, the Legislature created an independent Board of Regents to govern the institution.

Maryland reorganized its higher education system in 1988 by merging most public campuses into the University of Maryland System. Morgan retained its independence, however, and was designated by the Legislature as ***Maryland's Public Urban University***. In assigning this designation to the campus, the Legislature gave it responsibility for offering programs at all degree levels, carrying out research, and developing programs that addressed the needs of the City of Baltimore.

Notable Features of the University

Morgan is one of the best known and most comprehensive historically black institutions of higher education in the Nation. At the undergraduate level, it offers programs in the arts and sciences and in professional fields, including business, teacher education, engineering, and social work. At the graduate level it awards degrees in a variety of fields, including architecture, mathematics, the MBA, and offers programs leading to the doctorate in five fields of study.

During the past decade the campus has seen significant improvements to its physical plant. Over $150 million of new construction and renovation has taken place or

currently is underway. During this period, the University has doubled the capacity of its residence halls. Currently 1700 of its students reside on campus in some of the finest facilities found anywhere in the Nation.

The changes in the physical plant have been accompanied by rapid enrollment growth. The University currently enrolls 6,000 students, up from 3,500 a decade ago. Morgan students come from all states and numerous foreign countries. Over one-third of its student body is from outside of the State of Maryland.

Morgan leads all campuses in the state in the total number of bachelor's degrees awarded to African-American students, as well as leading in bachelor's degrees awarded in key fields such as engineering and the sciences. Morgan typically accounts for a majority of the degrees received by black students from Maryland institutions in business and education. In engineering and the sciences, it has doubled the number of bachelor's degrees awarded in the past five years. As is the case with degrees generally, Morgan leads all campuses in the state in the number of baccalaureates awarded to black students in engineering and the sciences.

Nationally, Morgan perennially ranks among the top campuses in the award of degrees to blacks in the sciences. It continually ranks among the top ten public campuses nationally in the number of black baccalaureate recipients who subsequently obtain the doctorate. The University typically ranks among the leading campuses in the region in the production of Fulbright Scholars.

In addition to its academic mission, Morgan traditionally has had a strong commitment to the community in which it is located. The University has a wide variety of programs of public service to the City of Baltimore, with a particular emphasis on assistance to the young population and the public schools. The campus emphasizes the involvement of its students in these programs with the goal of instilling in them a lifelong commitment to assisting those in less fortunate circumstances than themselves. One of the University's largest programs of service is a joint one with the public schools - the ***Baltimore Urban Systemic Initiative.*** This project, funded by the National Science Foundation, is a comprehensive effort to improve the performance of public school students in mathematics and the sciences.

Some Distinguished Alumni

Morgan's has a long tradition of graduating individuals who distinguish themselves in public and professional life. Some prominent alumni include -

- Richard Dixon, Treasurer of the State of Maryland, the first African-American to hold that post;

- Kweisi Mfume, President of the NAACP and former Chairman of the Congressional Black Caucus;
- Judge Harry Cole, Maryland's first black state senator and currently Chair of the Board of Regents of Morgan State University;
- Robert Bell, Chief Judge of Maryland's highest court and the first African-American to hold the position;
- Earl Graves, Publisher of Black Enterprise Magazine;
- State Senator Clarence Blount, Senate Majority Leader, the first African-American to hold this position;
- Delegate Howard P. Rawlings, the first African-American to chair a major fiscal committee in the Maryland Legislature;
- Major General Arthur T. Dean, US Army Director of Military Personnel Management, Office of Deputy Chief of Staff for Personnel;
- Brigadier General William E. Ward, 92nd Airborne Division;
- Major General Larry R Ellis, Assistant Deputy Chief of Staff for Personnel, Department of the Army.

Most of these alumni will be in attendance at the commencement on May 18.

Morgan's Participation in National Priorities of The Administration

- ***America Reads Project.*** The University has committed itself to utilizing Federal Work Study students as part of this effort to improve children's literacy.
- ***Summit for America's Future.*** The campus has extensive outreach activities into the community, particularly with the young people of the city and public schools. The University continues to seek new opportunities to use its resources as well as its faculty, staff, and students to assist those in the community in which it is located.
- ***Direct Lending Program.*** Morgan is a participant in this important program of student financial assistance.
- ***Community Empowerment Initiative.*** The University is part of Baltimore's federally-funded program for revitalizing Baltimore's poorest neighborhoods.
- ***Science Education and Education Technology Initiatives.*** Morgan is a major participant in a number of significant efforts in support of these initiatives. It is the manager of the Baltimore Urban Systemic Initiative, which is designed to reform mathematics and science education in the city's schools. It also is responsible for bringing a number of city schools on-line, tutoring students in the schools in mathematics and the sciences, sponsoring the City's science fair, and sponsoring a number of other programs related to these initiatives.