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GRAND AWARD WINNER

Changing the Norms of Medicine and Health: The Power of Positive Deviance

Writer, Emerson Moran; Speaker, Risa Lavizzo-Mourey, M.D., MBA, President, CEO, Robert Wood Johnson Foundation Delivered as the Alvin F. Poussaint, M.D. Visiting Lecture, Harvard Medical School, Boston, Mass., March 4, 2010

 Γ aculty. Students. Friends and colleagues from medicine and from public health.

And Doctor Poussaint. What an honor to deliver this lecture that's so appropriately in your name.

This truly is one of those back-to-the-future experiences, like I'm closing the circle.

After all, this is where the rest of my life really began. Harvard is where the "science" of medicine fired up my mind and set me on a course that excites me to this very day.

Harvard is where the "art" of medicine awakened my heart to the truth that there's more to medicine than science and technology alone.

And Harvard's where I discovered that students like me can overcome almost any obstacle – if we keep our moral compass on True North.

So, yes – my journey into medicine, health policy, health care and philanthropy began right here. It's a journey that's still unfolding, and I today want to share with you some stories and some of what I've learned along the way.

Let me begin with a word about how I got here in the first place. I love to tell this story.

My mother and father were physicians. My father was from New Orleans. My mother was from Atlanta.

They met at Meharry Medical College in Nashville. That's where they fell in love, became doctors of medicine, and started a family together.

Would you believe that I was born in the same hospital where they were residents.

The shift nurses looked after me in their off-hours. Medicine's been part of my DNA ever since.

Years later David Satcher was president of the school. That's before he was Surgeon General. He'd been a Robert Wood Johnson Foundation Clinical Scholar a few years ahead of me. And he was my mentor when it was my turn

Later, as I became more involved in national health policy matters, he invited me to Nashville for Grand Rounds. I jumped at the chance. It wasn't long after my mother passed and I was missing her terrifically. A trip to Meharry would be a great way to honor her.

We were looking in on patients with a whole herd of residents when an older nurse approached. She'd heard I was in the hospital. She cried out ... "Risa! I used to take care of you when you were a baby!" After so many years — what a shock! It was a moment of instant emotional

connection with Meharry and my parents and my roots.

We all know that racial, ethnic and gender discrimination in American medical education and disparities in patient care are as old as our republic and as new as the latest statistics on social determents of health.

You might think all that's ancient history – but believe me, it's not. When I showed up here for medical school in the 1970s, only 12 black physicians had graduated from Harvard Medical School in the preceding



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two decades.

Nationally in that era there annually were only 300 African Americans out of about 10,000 first-year med students in the entire country – and half of them were at Howard or Meharry.

The other half made up only 1.4 percent of all first-year students in the more mainstream medical schools like Harvard. Not long afterward, I added to that statistic.

I was young, naïve, and consumed with a passion to become a physician. Not just any physician – but one educated and trained at the best of the best, by the best of the best.

There was only one hang-up. Some of the school's old guard was still unhappy about admitting either minorities or women. They questioned the capability of our brains. Complained that we were not good enough. "Not Harvard material,"

In my second year, a senior faculty member – a biochemist renowned in his field – attacked us in article in the *New England Journal of Medicine*. Faculty lowered standards, he said, so we could pass. Our medical degrees were awarded on a "charitable basis."

The professor scolded that we were like airline pilots who'd flunked landing. Patients, like passengers, might die in our care and on our watch. He even suggested it could be considered "criminal."

We were furious. Frustrated. Maybe even a little bit frightened.

That's when Doctor Poussaint became our hero. Right from Day One, he was there for us.

The first African-American to ever serve in the dean's office. Remember, this was the 1970s, so he had big glasses, big hair, and an equally big smile that said "Come on in. You belong here."

He showed great courage and he spoke out. He didn't play it safe. He didn't play it soft. And we loved him for it.

Al – You held high a lantern for us in those dark days, lighting our way, and saving us from straying from the path that brought us here in the first place. I've counted you as a trusted guide ever since.

For that I say, "Thank you and bless you." And I am so happy your light continues to shine so brightly.

It's been quite a journey since leaving Harvard, but I return today – still a physician – but also as an MBA, a veteran of the ongoing health policy debate, and a philanthropist.

Like all journeys, one thing simply led to another. Down deep, though, regardless of the job, I am the same Doctor Risa I've always been. That hasn't changed.

What has changed is how I experience who I am and what I do. Along the way, I've learned three profound and fundamental truths about medicine and we men and women who teach it, learn it, and practice it.

One – That the very best medicine has as much soul as science.

Two – That the very best physician has as much wisdom as knowledge.

Three – And that the very best practitioner discerns the human condition as skillfully as the medical condition.

These truths are universal. They are "core competencies" of the "art" of Western medicine that go all the way back to Hippocrates himself,.

Picture him, this big, bald, bearded family doctor, twenty-five hundred years ago, back home on the Isle of Kos, making house calls, just like his father and grandfather before him.

Even then, his one-liners were legendary. Hippocrates'd tell patients: "Health is the greatest of human blessings." He'd tell parents: "Prevention is better than the cure." He'd tell students: "It is more important to know what sort of person has a disease than to know what sort of disease a person has"

If he were with us now, he'd tell us ...

"Wherever the art of medicine is loved, there is also a love of humanity."

The phrase from the ancient Greek is *phil-anthropos* – literally, "loving mankind." It's the same word that gives us "philanthropy."

Now, as a physician, I love that unique connection we experience with each single patient. But as a philanthropist, my patient's plural – as in huge numbers of us.

Sometimes, it's like treating all of society. //

Doctor Robert Buxbaum has been a fixture at Brigham & Women's Hospital since long before I trained there myself. He's an internist, a specialist in my field of geriatrics, along with palliative and hospice care.

Many years ago, as a brand new MD from the University of Pennsylvania, he wrote a timeless article titled "Toward Human Values in Medical Practice." This is what he wrote ...

- A physician who "practices medicine in a community ... is present at the interface of science and culture."
- Our "unique task" is to make "some sense out of the wealth of scientific data" so that it may teach the scientist "the value of the study of mankind" and "benefit the patient"
- "The most important area that lies before the physician is that of understanding the culture surrounding the patient."

This is a great intellectual construct. It teaches physicians that patient-centered care demands a perspective and practice that's not constrained by silos or walls.

It also teaches physicians what the public health community already knows so well – that most of what determines individual health has little to do with medicine or health care – and everything to do with the social, cultural, economic and geographic environment in which we live, work, play, grow old and die.

As I see it, Buxbaum's "interface of science and culture"

is the touch point between the physician's virtual world of clinical analysis and the patient's actual world of daily life.

This touch point is passive, like a light switch on the wall of a darkened room. Nothing happens until you turn it on. *Phil-anthropos* is what animates the touch point.

happens until you turn it on.

Phil-anthropos is what animates the touch point.

Our love of humanity, once animated, is how we maintain the delicate balance between the art of medicine, and the science of medicine.

It's how we value the uniqueness of each patient's existence ...

How we place ourselves inside the center of patient-centered care ...

How we grace our healing hands with a human touch ... And how we leaven the chill of clinical care with the warmth of compassion.

That's when you feel in your gut the misery of a hurting patient. The awfulness of personal tragedy. The pain of a loving family . The burning passion to alleviate the suffering.

And when you cannot stop the inevitable, it's compassion that frees us to quietly, calmly, even lovingly accept that it's nature's will, not ours, that will be done.

Philosopher Eric Hoffer said compassion is "the antitoxin of the soul."

That's perfect, isn't it? If compassion didn't draw us to medicine at the start – it sure is what keeps most of us here.

Now the student might ask – how do you learn compassion? The French writer, Simone Weil, cautioned that you "can't get it without grace." Or, I'd add, without a harsh dose of reality.

My own awakening began with a single female patient. I don't remember her name.

I was a resident at the old West Roxbury VA Medical Center. My patient – she was a veteran – appeared at the admitting station very late on a winter night.

She was homeless, helpless, and hurting, and she brought the cold in with her. Her feet were swollen; she wore flimsy house shoes. Raw leg ulcers made it painful to walk.

Her medical chart was thick; she'd been to the "VA" many times before. We did for her what we always did: A few hours in a warm bed, some antibiotics, and a decent meal.

But the next morning we had to let her go.

Sure – she had health coverage. But our care began and ended at the front door.

We were part of a system that was not equipped to protect our patient from conditions outside the hospital that were destroying her health and almost certainly shortening her life.

So she limped back into the same problems she had before: no home, poor nutrition, inadequate clothing, no one to care for her, no social network to come to her aid.

I've never forgotten the frustration of that day.

I was locked inside health care's fortress walls. But everything that threatened my patient's health was out there

on the other side of those walls – and I had no way to breach the gap.

The disconnect rocked my world.

Med school prepared us so perfectly to deal with what happens inside health care's four walls – where we are in charge. But no one taught us how to connect the dots between what we do (*gesture*) in here ... and what patients and communities need from us (*gesture*) out there ... where we're not in charge of anything at all.

What shocked me the most was seeing so clearly that this disconnect was an accepted part of the everyday routine. It was the norm! And that, to me, was not acceptable.

Up to then, I thought I had what it takes – including all the answers. But when that hurting veteran hobbled back into the cold my sense of inadequacy was gut wrenching.

That's when it hit me: There was no way I could give my patients the care they needed without understanding where and how they lived and what it was doing to them.

That's the thing about compassion: It's not enough to just feel their pain.

Compassion without action is a Hallmark card.

But compassion with action is a blueprint for what to do next – and the search for the best right thing to do next has consumed me ever since.

We all know atypical thinkers and do-ers who thrive outside the box. They attack complex problems with strategies and methods that don't ordinarily occur to most of us.

Their solutions are often better than anyone else's – even though their resources, risks and obstacles are the same as everyone else's.

These mavericks succeed because they are inspired, they are clever, they are driven to right what's wrong and to fix what's broken.

Their connection between head and heart crackles with electricity. If you listen carefully, what you'll hear is the sound of unorthodox, transformative change. It's unorthodox because it ...

Challenges convention ...

Calls out the status quo

Dares to deviate from the negative, harmful norm ...

And brings about a more positive, beneficial norm.

There's even an academic field for what I'm talking about. It's called "Positive Deviance."

The hypothesis behind Positive Deviance supposes that if normal behavior produces negative outcomes – then deviating from normal behavior should produce more positive outcomes.

In a relatively short time it's grown into a widely accepted and dynamic "brand" for social change.

It sounds weird, but its proponents and practitioners are known as "Positive Deviants" for how they convert a norm's polarity from negative to positive.

Marian Zeitlin, a nutrition expert at Tuft's University, developed the theory while investigating unconventional ways to alleviate hunger in under-developed corners of Southeast Asia.

To field-test her hypothesis, she dispatched two colleagues – Jerry Sternin and his wife, Monique – to Vietnam.

What happened next is a legend among social scientists and community health experts.

The Sternins discovered a village where 70 percent of the children were malnourished. This was the norm.

But what about the 30 percent who were not malnourished? This was not the norm.

How come? They lived in the same village. Had the same socioeconomic status. Shared the same risks. But they were in better health than the other kids.

The answer was hiding in plain sight. Families with the healthier kids paid better attention to ordinary things like what they ate, what they drank, and personal hygiene.

By their own positive behavior they deviated from the village's more prevalent negative norm.

When the majority of the village's families adopted the good-health habits of the minority – malnutrition rates dropped as much as 85 percent. It was plain old common sense.

"It's so exquisitely simple," Jerry explained. You "amplify" what's going "right" – rather than just "fixing" what's going wrong. It gets real when people take responsibility for modifying their own behavior simply by doing what we know already works.

Positive Deviance puts medicine, public health and health care inside the human experience. It's what Professor Buxbaum called the "interface of science and culture" all over again.

This is the stuff that alters the trajectory of all society. True transformation like this doesn't happen on its own. It takes a rare and gifted breed of people with the vision and will to do things in radically different and profoundly better ways.

Doctor Barbara Barlow is one of those people.

She grew up in Pennsylvania Amish country, thinking that someday she'd be a medical missionary in some remote and needy corner of the world. Instead, she found herself as a resident in pediatric surgery in the Bronx.

Her patients were as needy as any children on earth. They'd fallen out of windows,

been hit by cars, hurt on the playground; kids who'd been shot or stabbed, burned or assaulted in the worst ways imaginable.

In the hospital operating room, this was a medical crisis of broken bodies and lives cut short. On the street, however, it was a social crisis of adverse behavior and chronic neglect.

The authorities saw it as a matter of crime and punishment. That was their norm.

Doctor Barlow, however, saw it as a matter keeping the children out of harm's way in the first place. This was her norm.

She was able to see what others could not: That a new

medical "normal" could be achieved through the practice of a pre-emptive medicine that reaches outside the confines of the doctor's office and into the larger community beyond.

Her solution: She opened an injury prevention program at Harlem Hospital. She turned parents and kids into champions for safety. She pushed the community to create safe, healthy havens for the children.

That meant:

- Rebuilding playgrounds.
- Forming dance companies and Little League teams.
- Teaching grade school kids about bike safety.
- Installing window guards to prevent falls.

The results were astounding:.

- A 95 percent decrease in window falls.
- 61 percent fewer suicide attempts.
- 55 percent reduction in injuries requiring hospitalization.
- 50 percent reduction in motor vehicle and bicycle injuries.
- And a 46 percent drop in violent injuries.

Our foundation's supported Doctor Barlow for more than 20 years. We helped her take the Injury-Free Coalition for Kids national.

Today, it's one of our longest-running, most successful programs with 42 sites in 40 cities. Each is housed in a major hospital trauma center. One is right next door at Children's Hospital.

Go over and take a look sometime. You'll see why Doctor Barlow is a hero of child health and safety in America, a model for what can be achieved when a physician breaks down the walls of convention, and a prototype for Positive Deviance long before anyone called it that.

Doctor Poussaint – "prototype of Positive Deviance" also applies to you and our good friend David Satcher.

In your own ways you challenge the poisonous array of failed norms that for generations have adversely affected the health, welfare and education of African Americans in every walk and way of life.

It's no coincidence how your paths have paralleled one another over the years ...

On the front lines of civil rights.

On the streets of Watts.

In the ivy halls of the Academy.

In the teaching and practice of medicine.

And in the corridors of public and private power.

Call it the "harmonics of Positive Deviance."

Now, Al – not everyone may know that you trained in psychiatry at UCLA. Or that you were in Los Angeles when riots broke out in Watts in the summer of 1965.

It was the largest, costliest and most widely witnessed urban upheaval of the Civil Rights era. In the riot's aftermath, the media exposed Watts' extreme poverty, crime, human distress – and the terrific anger of its residents.

A huge complaint was that health care was all but nonexistent.

The nearest hospital was 20 miles away – way beyond the reach of a population without cars or public transportation. Rates of infant mortality, substance abuse and mental illness were unusually high.

In other words, the community health "norm" in Watts was dangerously negative.

You've spoken often about how the riots altered the direction of your life. A while back you talked about it at the Morehouse School of Medicine in Atlanta. And I quote ...

"I decided that the best thing I could do to support the mental health of black people was to join the civil rights movement and to work for the elimination of segregation and racism in America.

"From that experience,

I learned a very critical lesson ...

You have to be an activist to create change.

To improve our mental health services, we have to be activists. To help salvage our youths and communities, we must be activists on behalf of ourselves, our youths, and our communities."

Within days, you were walking the walk in Jackson, Mississippi. You provided medical care to civil rights activists and pushed to desegregate the local medical facilities.

In hind sight – you were on the razor's edge of radical social change – dangerous, worthy – a pioneer "positive deviant."

You weren't alone. David Satcher was right behind you. Amazingly, he, too, had a life-changing epiphany in Watts a few years after the riots.

Satcher's life before Watts had been a straight line of connected dots.

- Up from the awful poverty of a red-dirt farm near Anniston, Alabama, right down the road from where a Greyhound bus of civil rights workers was firebombed.
- One of the first African American from Calhoun County to go to college.
 - Jailed with Dr. King during civil rights sit-ins.
- Phi Beta Kappa at Morehouse. MD from Case Western Reserve in Cleveland. PhD in cytogenetics. A Robert Wood Johnson Clinical Scholar.

His first post-residency job was in Los Angeles. He directed sickle cell research at the brand new King Hospital – built after the riots to serve Watts. Across town, at UCLA, he focused on community health.

It would've been easy to stick close to either classroom or hospital. Instead, Doctor Satcher chose the streets.

To outsiders, Watts was an alien and menacing place full of racism, desolation, and constant violence. But for Satcher it was a lot like back home in Alabama – especially the lack of care for the very poor.

He instinctively knew what to do. He joined Second Baptist Church in Watts – and set up a free health clinic in the church basement.

Adults, children, entire families in need came nonstop down the stairs for help they'd never had before. The church clinic became a classic model of a medical practice without walls.

Satcher says Watts turned him "a social scientist" and an activist – just like you, Al.

He translated his Watts experience into an evidencebased paradigm for community health care, the kind that puts patients before process, factors in social determinants of health, and embraces fairness and equality as both medical and moral imperatives.

It's a formula he's followed the rest of his career - as head of the CDC, as Surgeon General, and as the most influential physician in the country.

He used the Surgeon General's bully pulpit to advocate for the public's good health.

In 2001, in the face of tremendous opposition, he was the first national official to warn the country of the out-ofcontrol epidemic of obesity among American adults and

If the epidemic did not abate, he predicted that illnesses related to obesity could overtake tobacco as the chief cause of preventable deaths.

This was an astonishingly brave thing for David to do - even with truth on his side. It ranks right up there with Luther Perry's 1964 Surgeon general's report that smoking causes cancer.

Not surprisingly, the naysayers struck back strongly. They ridiculed the warnings as coming from "the twilight zone of fat hysteria." I knew, however, from my own postresidency days just how right he really was.

From Boston, you see, I'd moved down I-95 to Philadelphia, to teach at Temple University's School of Medicine.

Temple occupied a sheltered island surrounded by some of the worst urban blight in America. This was a neighborhood of about 20,000 chronically poor people – mostly African American and Latino.

Unemployment and high school dropout rates were around 30 percent. The housing was old and decaying. If you can believe it some families didn't even have indoor plumbing.

You couldn't find a decent grocery store or supermarket for miles around – no place for families to buy healthy foods, fresh fruit and vegetables.

Making it worse – without a car most people couldn't get to other parts of the city where healthy food was easily available, but not to them.

Instead, all they had were fast food and takeout, along with bodegas, and high-priced corner stores stocked with too much of what is bad for you and almost nothing that's

It was so bad that a third-grade girl not long ago told a visitor to neighborhood that she'd just seen a real banana for the very first time.

Sociologists call areas like this "food deserts."

Your own dean for students, Nancy Oriol, knows exactly what I'm talking about – don't you, Nancy?

Nancy and I were classmates. She grew up in North Philadelphia, and she tells men that everyone just assumed it was normal not to have a grocery store nearby.

It was the norm – negative, harmful, and deplorable – but still the norm.

Not until years later did she realize how crazy it was for people to put up with it.

Nancy – you're so right. No one seemed to notice that neglected and underserved neighborhoods like North Philadelphia were incubators of childhood and adult obesity.

Researchers at Children's Hospital of Philadelphia estimate that nearly 60 percent of children and teenagers in the area were either obese or close to it. Nearly 30 percent of kids over age 5 had medical or physical disabilities. Many were diet-related – obesity, hypertension, asthma, diabetes.

Here I was, right up the street from the Liberty Bell and Independence Hall, only steps away from some of America's great universities and medical schools, about to enter my own practice for the first time, and a horrific medical and community health crisis was unfolding in real time, in plain view, and most people didn't have a clue what was happening.

Obesity was so badly damaging these kids that they were destined to live sicker and die younger than their parents.

Don't forget – this was well before Doctor Satcher's historic report on obesity, before research about "food deserts," before so many obese kids were diagnosed with what used to be called "adult" diabetes.

The neighborhood was waving a sign that said "Positive Deviant Wanted" but the medical and public health communities were not paying attention.

As they say, that was then – but this is now. In 2003 I became president and CEO of the Robert Wood Johnson Foundation.

Everything I'd learned on my journey to this job told me to take Surgeon General Satcher's words of warning very seriously.

At RWJF, we made childhood obesity an immediate priority. The first steps were supporting the research on community based prevention, identifying what works, testing new models, measuring progress, and testing again.

It was just the beginning of our strategy and a plan. By 2007 we were ready to ramp up – in a big way. We allocated half-a-billion dollars to develop workable, evidence-based ways to reverse the spread of childhood obesity by 2015.

We've come a long way in less than 10 years, thanks to families, schools, communities, physicians, other philanthropies, and, yes, even Harvard itself. The Medical School and its Division of Nutrition are collaborating with the School of Public Health, the Business School, clinicians and the food and beverage industries.

The goal is measurable improvements in nutrition and health across all demographics. Your timing is ideal.

• Families and kids are ready for change.

- Some of the harshest early critics are now partners in seeking solutions.
- Food and beverage manufacturers are marketing healthier products to children.
- Schools are taking the junk food out of the vending machines and restocking them with healthy snacks.
 - The medical community is newly engaged.
- Political celebrities like Bill Clinton and Mike Huckabee champion the cause.
 - The media's covering the cause.

So, yes, the climate suggests that a new, positive, healthier norm is spreading.

The research is encouraging. It looks like kids are consuming fewer calories a day.

Current prevalence rates of childhood obesity are holding steady. Supermarkets are popping up in the middle of those food deserts.

And the President and First Lady have made reducing childhood obesity a matter of national urgency.

You may have seen publicity about Michelle Obama's "Let's Move" campaign. We're proud to have helped her understand the importance and complexity of issue. But the real proof is out on the streets and in the schools.

Two weeks ago I was back in North Philadelphia.

The power of Positive Deviance was in full sway.

- Corner convenience stores are stocking more food that's actually good for you.
- Elementary school kids actually go out and grade how the stores are doing.
- Schools have scaled back snacks, banned candy, and replaced soda with fruit juice and milk.
 - Special programs reward kids who eat healthy food.
- The number of overweight and obese students dropped 10 to 15 percent as a result.

The best news was over at the old Progress Plaza. It used to be home to a wig shop, Popeye's Chicken and a boarded-up grocery. Now it's all shiny and new, with two banks, a dollar store, Radio Shack, Payless Shoes – and a 46,000 square-foot Fresh Grocer supermarket.

It's financed by a public-private partnership the state created to attract grocers to underserved neighborhoods. It's exactly the kind of good medicine and public health that doctors Buxbaum, Poussaint and Satcher teach.

The store opened in December; it's already a symbol of North Philly's emerging renewal.

Store prices are affordable. The aisles are loaded with hot food, salads, cut up fruit and fresh seafood. Ninety percent of the employees are from the neighborhood.

I was there the day Mrs. Obama came to promote "Let's Move."

Several hundred kids, teachers, parents and neighbors jammed the school auditorium to hear what the First Lady had to say. She said – quote – "We want to eliminate this problem of childhood obesity in a generation."

The crowd cheered – and it was music to my ears. If we succeed, this will be the most significant contribution to the security of America's public and economic health in living memory.

If we fail, all the political sound and fury over health reform will seem like we missed the point. The costs of failure will be more than our society can bear. The anticipated human and fiscal costs of obesity unchecked really are that high.

We are out to convert the negative norm of obesity in America – to prompt it to deviate into a positive norm of healthy living and healthy behavior.

The implications for every adult and child in America will be powerful and permanent.

On December 14, 2008 the New York Times Sunday Magazine published its annual alphabetical breakdown of the "Year in Ideas." Under the letter "P" was a brief article about Jerry Sternin, Monique Sternin and "Positive Deviance."

It was the first time the mainstream media paid serious attention to their work.

The Sternins were living not too far from here. In their dream house in the woods. Near Walden Pond.

When the paper arrived on the their doorstep early that morning, the "Year in Ideas" should've been a big, beautiful Christmas gift.

But in one of those inexplicably painful twists of fate, it came too late

Jerry had cancer. He passed away only hours before the piece went online.

Later, a good friend recalled the passion Jerry expressed when he talked about discovering the key to meaningful change.

This is what he said ...

You cannot think your way into a new way of acting.

You have to act your way into a new way of thinking.

Did you get that?

"You have to act your way into a new way of thinking." This in itself is a manifesto for "positive deviance." What a terrific legacy we can put into action ourselves.

It is up to us, you know, now that we know what to do. So my charge to you all today, is to keep the humanity in health care and public health.

Be a positive deviant.

Don't be locked in by the walls of your office or the silo of your job.

And above all else, follow your passion.

There are few things as meaningful as helping, healing, and pushing our society to change itself for the good of all of us.

It's like what a woman in a Bangladeshi village told the Sternins:

Let us tell you about the changes in our lives. We were like seeds locked up in a dark place, and now we have found the light.

So have we, haven't we? So have we. Thank you. ◆

BEST-WRITTEN SPEECH BY ORGANIZATION—EDUCATORS

Remarks to the Association for Academic Women

Writer, Aaron Hoover; Speaker, Chris Machen, First Lady, the University of Florida Delivered at the McKnight Brain Institute, Gainesville, Fla., Sept. 13, 2010

Thank you, Terry, for that kind introduction. With apologies to all the diaper-changing male professors out there, I know that women in academe face special hurdles, such as juggling child bearing with seeking tenure. I am glad to do my part for the Association for Academic Women as you seek to lend a hand.

Terry introduced me as the "First Lady," which is accurate. But I have wrestled with that term ever since my husband, Bernie, got his first job as a university president. That was at the University of Utah, where we were before we came to Florida.

First off, it is just plain weird to have a Pride and Prejudice title in this era of Eat Pray Love! But the bigger head-scratcher is, there is no job description. As a result, everyone seems to have their own idea of the role of the First Lady.

Since we are all university people, in the spirit of scholarly inquiry, let me read you what a few authorities have said.

First Ladies, asserts the New York Times, are "those dutiful, ever gracious boosters in the president's shadow, who assemble the official dinners, keep the presidential mansion running smoothly and represent the university at events."

Well!

Lady Bird Johnson may have come came closer to the mark when she said, "The First Lady is, and always has been, an unpaid public servant elected by one person, her husband."

But my favorite expert is Jacky Kennedy Onassis. Jacky

insisted, "The one thing I do not want to be called is First Lady. It sounds like a saddle horse."

Amen. But perhaps, unkind to horses!

I think what all these descriptions share is a discomfort with the link between marriage and power, one that has never seemed more antiquated than it does today. *First Lady*. It just about groans with the burdens of Victorian women of privilege.

No knock on those burdens, but had I chosen to embrace them when I became a First Lady 12 years ago, I would have been groaning. Well, I didn't. It took me awhile, but I figured out my own definition for this title. I am lucky enough to do what I want. What matters more, I can be a force for change for the things I believe in. That is not a burden. *That* is a bounty.

Today, I want to share a little about my personal journey, and what I and my 10-pound title have tried to achieve together. Hopefully we can have some fun and you'll hear a thing or two worth carrying out of here. After all, some of *you* may have First Husbands some day. Scratch that, thanks to Todd Palin, they'll get to be *First Dudes*. Now, how unfair is that?

I'll start with a little about myself.

I was born the second of three daughters in St. Louis in 1945. My dad owned gift shops and my mom worked at our church. We were Catholic and I went to Catholic schools. My grandmother had always dreamed of being a nurse, and she imparted those dreams to me. I graduated from St. Louis University College of Nursing at 22.

That was in June 1967. I married Bernie on July $1^{\rm st}$. It was about 180 degrees, and in our wedding pictures, everyone seems to be melting. Bernie went to dental school at St. Louis. We met in the library, and on our first date, we went to a freak show at a fair. Looking back, it was kind of a sneak preview of university life! We said our vows at our church, with the reception held at the same home where I had grown up.

For most of my marriage I worked as a nurse part-time while raising our three children: Lee, Michael and Maggie. I spent 27 years in nursing, most of it in neonatal intensive care units, where I cared for premature and ailing babies.

I loved my work. The NICU is specialized and intense and the nurses become very close. This helps explain why it was so hard when we left Michigan in 1997 to go to Salt Lake City for Bernie's fist job as a president at the University of Utah.

I had stopped nursing a few years before, but this First Lady job, this was *totally* different. I wasn't on a team, I was alone, with only the cold comfort of my whale-bone-corset of a title.

There was no one to ask for help, because you have no friends when you move. And making friends in this position is hard! As First Lady, you have to worry about false friends, or becoming too close to wives of university VPs who might have to move on. And I am a woman who re-

ally needs my female friends!

At parties, standing next to Bernie, people were so eager to get close to him that they practically pushed me away. That's a funny feeling. I thought, why am I here? What is the point? I am not having a good time!

I played the hostess at official dinners and appeared at Bernie's side at university functions. I suppose I looked fine. But, inside I was floundering. Time passed, and slowly, without thinking about it, I just started to do what I wanted to do.

And that's when things finally started to gel.

I'll tell you a little story. My dad used to take me on trips out West, and I have always loved Western culture, and when we were in Utah I got into cowboy poetry. Pretty soon, I was heading out by myself to the National Cowboy Poetry Gathering in Elko, Nevada. Bernie would show up alone at university events when I was gone, and people would ask, "Where's Chris?" He'd tell them, "Oh my God, she is out there with those cowboys in tight pants again."

That wasn't a bad thing! The First Lady title automatically sets you up as a Stepford Wife, so people are genuinely relieved to learn you're a real person. In fact, and here's what finally sunk in, that's part of my role as First Lady. Bernie is an introvert, and he doesn't display a lot of emotion, and he often has to be firm and distant. I think sometimes people look at me and think silently to themselves, "He can't be all that bad, because she's kind of nice."

If I can do that for him, that's a good thing for his leadership, and by extension for the university.

We were in Salt Lake six years, and I feel like I spent the whole time practicing. When we arrived here in 2004, I was more comfortable. But now I faced figuring out, all over again, how I could help at UF.

There's the expectation of the First Lady as hostess, and then there's the expectation she will help raise money for the university. And absolutely, I am glad to do my share. But I am person who does not like to ask for money. I would much rather make friends than make asks.

If you think about it, though, the point of fundraising is to support the university. There's more than one way to achieve that goal.

We had been at UF about three weeks when I started hearing about a committee working on sustainability. It piqued my curiosity – as a family we had always recycled, and I am environmentally minded, but I didn't know a lot about sustainability. I asked Bernie about it, and he said it was important, but he was too busy putting out fires.

I started attending the meetings, and it became obvious that despite years of hard work, these folks felt stymied. One night, Charles Kibert, at the Rinker School of Building Construction, sent an email highly critical of quote-unquote "the administration." So, I called Charles up and I asked him where the bottleneck was.

He said, "It's the middle," meaning middle management. It was like a light went off. I said, "Charles, I think I can do

something about that."

I talked to Kim Tanzer, former chair of the UF Faculty Senate and member of the sustainability committee and now dean of architecture at the University of Virginia. Kim suggested Bernie give a speech urging administrators and staff to pursue sustainability no holds barred. I said, you tell him what to say, and I will make sure he is there.

I was sitting in the audience with Les Thiele, a political science professor who had chaired the committee, and he looked at me and said, "Do you know how long I have been waiting for this moment?" I just got chills. The *passion of these people* was finally amounting to something.

It took off like a rocket. We created an Office of Sustainability in Tigert Hall and hired our first director of sustainability in 2006. From there, we increased building energy efficiency, reduced greenhouse gases, made available transportation alternatives, planted native plants – the list just goes on and on. Today, UF is one of the greenest public universities in the country. We are routinely recognized by national groups from the Audubon Society to the Princeton Review.

Certainly a third expectation of the First Lady is that she will nurture the town-gown relationship. I have participated in several local organizations over the years. But my favorite is one I and a local veterinarian, Dale Kaplenstein,

invented nearly three years ago.

Dale and I started a clinic together at the St. Francis House to provide care to homeless and very poor people's pets. You would be *amazed* by how people open up to you when you are helping their animals. We have discovered that if we can help these pet owners care responsibly for their pets, it's a step toward their owners taking better care of themselves.

I helped start this clinic this because I am an animal person and because I thought it was an incredible idea. It didn't even occur to me until later that it fits under First Lady-slash-community-service. But you know what? That's exactly how it should be.

After 12 years, if I had to distill what I have learned into a single sentence, it is this: *People will always have expectations, but how you meet them is up to you.*

On that note, let me bring this to a close by confounding my own expectations, and perhaps yours' as well. I am a passionate liberal, but I am much discouraged by the divisiveness and rancor in our current political life. So, I want to end with quote from a First Lady from the other side. I have to hand it Laura Bush, because she said it best.

"The role of the First Lady," Mrs. Bush said, "is whatever the First Lady wants it to be." THANK YOU! ◆

BEST-WRITTEN SPEECH BY ORGANIZATION—ASSOCIATIONS

Advice for Future Neurosurgeons

Speechwriter, Anna Puccinelli; Speaker, Peter W. Carmel, M.D., President-elect, American Medical Association Delivered at the Honorary University of Texas Southwestern Medical School Student Dinner, Dallas, Texas, Aug. 22, 2010

Thank you for that gracious introduction.

What a wonderful tradition! For 34 years DCMS has hosted this dinner for the freshman class of the University of Texas Southwestern Medical School. And for 14 yrs you have invited the AMA President elect to speak.

It is a true pleasure to be here this evening and welcome all of you freshmen to the family of medicine. I want to start by saying congratulations! You've already passed your first test. You chose the right career.

In all seriousness, the rewards of a career in medicine are many. Let me give you an example. One evening last fall I received a phone call from a woman who sounded a bit desperate and somewhat embarrassed. She informed me that her son was going to be married in a few weeks and would like me to speak at the rehearsal dinner.

I asked her who her son was, and when she told me, I was surprised. I hadn't seen John in 17 years. But when he was a boy, I'd removed an intraventricular tumor from John's brain. And apparently, he had told his fiancé so much about "Dr. Carmel" that she wanted to meet me.

Needless to say, I honored the request. I reunited with John, met his fiancé, and delivered the toast. And the next day I attended their wedding.

Let me tell you, you don't get to make that kind of an impact in many jobs. Saving a life – developing personal relationships with patients and helping them overcome incredible obstacles – these are some of the most rewarding experiences a person can have.

But the rewards of medicine aren't limited to altruism. You can also look forward to a lifetime of learning. Because in medicine, the tools of the trade – from technology to research to pharmaceuticals – are always advancing.

As a neurosurgeon, one type of operation we perform from time to time is removal of an acoustic neuroma. Since it's only your first week, I won't quiz you on what that means

An acoustic neuroma is a tumor that develops on the nerve providing hearing to the brain. If it grows large enough, it not only affects hearing, but can press against the brain stem and become life threatening.

In the 60s, when I started my career, if a surgeon was able to remove the tumor without maiming or seriously damaging the patient – and if the patient, having survived, went home after two weeks – you were considered a hero.

Basically, before even beginning the operation you assumed that something would have to be done afterwards to correct the patient's paralyzed face – because the nearby facial nerve was usually damaged getting the tumor out.

Ten years later, the technology had advanced to the point that a good surgeon could not only remove the tumor without causing the patient serious injury, but also retain facial nerve function.

And *today* when you remove an acoustic neuroma, if the patient doesn't wake up and have dinner that evening you think you've screwed up!

Medicine is always advancing. And as doctors, you too will continually advance, learn and improve.

Albert Einstein once said, "Intellectual growth should commence at birth and cease only at death."

Throughout your careers, there will be no shortage of intellectual stimulation. Because just when you think you've got it down, the game will change.

Those are just a few of the rewards you can look forward to down the road. And believe me, there are more. But right now, you're undoubtedly more focused on the immediate future.

You must all be very excited ... but if you're anything like I was, you're also a bit nervous. So I'm going to give you some advice – some tips to help you through the challenges of medical school, residency, and ultimately professional practice.

First, remember to *always keep an open mind*. Over the next several years, you're going to be asking yourselves some difficult questions:

"What specialty should I choose?"

"Where do I want to work?

"What will make me the happiest?"

In short, "Who am I?"

Us doctor types can be just a <u>tad</u> Type A, and the temptation is to try to figure it all out in advance ... to set rigid plans for the future and put ourselves into a box.

But I urge you to resist that temptation. Instead, view your education as a journey of discovery.

Let me tell you about my own journey. When I started med school I wanted to be a psychiatrist, and during my second year I took a course called introduction to the patient.

One day the instructor – a fabulous psychiatrist named Herman –introduced a young woman to the class and conducted a psychiatric interview. Afterwards, he asked the chief resident in psychiatry to give his assessment.

The resident presented his theory, but the problem was, I thought he was wrong! So I contacted the professor afterwards and gave my own assessment. Herman listened, and told me that my theory was indeed more plausible – but in the end, both interpretations were acceptable. Now that

kind of ambiguity didn't sit well with me. I needed more precision. A clear answer. Right versus wrong.

After that incident, I decided to shift my focus from psychiatry to neurology. But my journey didn't end there either.

In order to pay my room and board during med school I worked on the neurology service at the famous Bellvue Psychiatric Hospital. I spent most of my time taking patient histories and doing physical exams. But on many nights and weekends I had a choice — I could either go to sleep, or I could accompany my patients to surgery.

So I started going to the operating room. And it was then that I discovered my passion for surgery.

You see, choosing exactly where you fit in the picture can take time. Even after choosing neurosurgery, it wasn't until I began my residency at the Neurological Institute of New York that I discovered my interest in dealing with pediatric problems and kids.

Remember, always follow your intuition. Don't just make decisions with your mind – make them with your gut and your heart. Figure out what excites you, and do it. Because when you love what you do, it's not work. The last time *I* did a lick of work was June 30, 1967... the last day of my residency.

A second important piece of advice – find a mentor. We *all* need guides during our careers. Those who are further along than we are, and have the benefit of experience. My own mentor, Dr. Leonard Malis, had a profound impact on my development and growth as a physician.

I encourage each of you to seek out a mentor. A good mentor will not only act as a role model, but also offer advice and help you to build a network.

Third, always remember that patients are not sources of data or problems to be solved. They are *individuals* with unique needs. And they generally come to us for help when they are feeling most vulnerable. Sharing that vulnerability is a privilege and a sacred obligation.

Over the next several years, you're going to spend a lot of time studying, analyzing, and memorizing. But being an effective doctor is not just about acquiring knowledge of the physical and biological sciences. It's also about developing people skills.

Many people think the best doctor is the one who *knows* the most. But what good is knowledge without empathy?

Other people think the best doctor is the one who *feels* the most. But what good is empathy without the knowledge to offer help?

A good doctor both thinks *and* feels. They stay on top of the latest research and medical developments, and they always remember to treat the patient as a whole person.

My fourth piece of advice – hang in there.

As you forge ahead in your medical careers you're all going to face challenges. Maybe a particular subject, a particular teacher, a particular test, or an outside factor.

One of my challenges was anatomy... first the cadaver, and later the "real deal" during surgery. You see, when I

started med school I had just one real problem. I couldn't stand the sight of blood!

So obviously, I was not overly eager to start my surgical rotation – the first in my major clinical year. But I was determined to soldier through it. And much to my surprise, I ended up loving anatomy! I became so interested in the structures and the surgical process itself that I quickly forgot about the blood.

Whatever fears emerge during your education and your career, face them. And no matter what challenges arise, don't give up. Hang in there. Because it will all be worth it in the end – not just for you, but especially for your patients.

Now I am going to shift gears for a moment and talk about the big picture – the backdrop against which you're embarking on your careers.

This is a historic time for health care in America. In March President Obama signed the most patient-friendly legislation this country has seen since the establishment of Medicare in 1965.

The Patient Protection and Affordable Care Act not only expands coverage, but also corrects a number of injustices that plagued the system.

Thirty-two million uninsured Americans will gain access to health care.

Insurance companies will no longer be allowed to deny patients coverage because of preexisting conditions.

Patients with debilitating diseases such as cancer can no longer be denied treatment because they've reached a coverage maximum.

Youth can remain on their parents' policies until age 26. Insurance companies will be forced to deal with competition through the creation of exchanges.

These are just some of the benefits of the health system reform law.

Now I won't lie to you. The law is not perfect. Congress seems to have forgotten that you can't help patients without sustaining the doctors who care for them.

Nevertheless, the Affordable Care Act is a tremendously important first step toward meaningful reform, and the AMA played a vital part in making it reality.

In 2006 we launched a "Voice for the Uninsured" campaign that brought national attention to the plight of America's millions of uninsured.

We sat at the table during health system reform negotiations, and continued to advocate for both patient and physician rights throughout the whole debate.

As the nation moves forward to implement health system reform, the AMA will remain heavily involved. We represent organized medicine in this country, and it is our job to make sure the needs of physicians are heard.

That's why I encourage you to join the AMA's Medical Student Section, or MSS. The MSS is the nation's largest medical student organization, and it has a rich history.

It was the MSS that called on the AMA House of Delegates to endorse the early demand for smoke-free work-

place legislation. And it was the MSS that called for making comprehensive health system reform an AMA top priority.

Today, the MSS is busy responding to the most pressing challenges currently facing medical students. For example, in March nearly 300 members of the MSS traveled to Washington to lobby for medical student debt relief.

I don't want to depress you, but as you're probably well aware, the average medical student debt in this country is \$156,000. That's unacceptable.

When faced with this kind of debt many students feel compelled to choose higher income specialties and subspecialties rather than primary care careers in family practice and general internal medicine.

Other students are dissuaded from pursuing medicine altogether. It's simply too cost prohibitive.

This in turn contributes to another problem – the nation's looming physician shortage.

If health system reform is to succeed, Congress needs to provide medical student debt relief now.

In addition, the government needs to ensure that medical school graduates have sufficient Medicare-funded residency positions available to them.

The AMA, led by the MSS, is aggressively fighting for these reforms. And by joining the MSS, you will help.

You'll also receive a number of benefits, such as scholarship and internship opportunities; guidance in transitioning from med school to practice; and access to a powerful network of medical students, residents and physicians.

Today all of you have an unprecedented opportunity to take part in history and help shape the direction of America's health care system.

Join organized medicine. Influence the policies that affect your future profession. Add your voice!

Before I finish I have one final piece of advice for you. This is mostly directed to the future surgeons out there.

Of course based on what I said earlier about the journey, some of you may not even realize you're headed in this direction yet. So just in case you are, listen up.

When I was covering the night-time shift at Bellvue the chief resident in neurosurgery, Dr. Amilcar Rojas, often let me assist. One night I became aware of some movement, and I looked up to see Dr. Rojas slowly shaking his head back and forth "no."

He gave me a grave look and in one sentence summed up everything you need to know as a brain surgeon. "Carmello," he said in a thick Spanish accent. "Don't put your fingers in the brain!"

So there you have it. Words to live by for all you future neurosurgeons.

In closing, I wish each and all of you the best of luck in your careers...equipped with open minds, relying on mentors for guidance, treating patients as people, and just hanging in there.

I sincerely hope to see you next...even *soon*, at an AMA meeting! Thank you so very much for inviting me.

BEST-WRITTEN SPEECH BY ORGANIZATION—BANKING AND FINANCIAL

Money: The Root of All Happiness?

Writer, Roger Lakin; Speaker, Gerard Lemos, Chair, Consumer Financial Education Body Delivered at the Royal Society of Arts, London, England, Feb. 9, 2011

 ${f T}$ his year is the 400th anniversary of the publication of the King James Bible.

So I intend to follow in a 400-year old tradition tonight – and misquote from the King James Bible.

The 1611 version didn't actually say 'money is the root of all evil.' But everybody thinks it did.

It *definitely* did not say that money is the root of all happiness. But I'm going to argue that it can be.

Before I explore that idea, I'd like to thank everyone for coming.

Money, hope and despair

Gallup and the Worldwide Independent Network of Market Researchers published a survey three days before Christmas. It was their annual survey of international economic prospects. Called – magnificently – the Global Barometer of Hope and Despair.

The nation most hopeful for 2011 was – wait for it – Nigeria.

And the nation most despairing – France. Overwhelmingly, the most prosperous nations in the survey were the gloomiest about the future.

Not for nothing is ennui a French word.

But in case I insult anyone in the audience, *joie de vivre* is also a French term – and it's *joie de vivre* we're concerned with tonight.

In a speech in 1968 Robert Kennedy said that 'GDP measures everything except that which makes life worthwhile.'

It's a bit more complicated than that.

I suspect most of us here this evening would find it pretty hard – without much money – to live a life that felt worthwhile.

So the interesting question is not *whether* money is important. Of course it is. But *why* is it important? What difference does money really make? I think we pretty much know the answer to that.

Indicators of happiness

Psychological studies suggest that wellbeing – or happiness – resides in the interplay between your *personal characteristics* and, much more significantly, *objective* and *subjective* indicators in various *life domains*.

All these life domains you could guess without the benefit of a psychology PhD:

- work,
- housing,

- mental and physical health,
- safety,
- leisure.
- family contact and other social contact.

And of course, finances. Money.

Objective indicators are easy to measure and make up objective quality of life.

But here comes the interesting thing: The regression analyses – and I promise not to bore you with those – show that <u>subjective</u> quality of life indicators measured on the same domains have a far greater impact on wellbeing than the objective indicators.

In other words, the question is not, 'how big is your house or car?' but, 'how satisfied are you with your house or your car?'

You might have a job which involves working long hours, but you love your work – I expect that includes some people here tonight.

That's better than working part-time in a job you hate.... And so on.

Subjective satisfaction is the key thing here.

Of course you then have to ask, so what affects satisfaction? And that's the really interesting part.

I bet you didn't think you were coming to a poor man's version of the Oprah Winfrey show, did you? But here goes....satisfaction depends on

- Self-esteem
- Autonomy
- Feeling on top of your environment
- Having a purpose in life
- Personal growth

There you have it. These are the things that make the difference.

From this perspective perhaps we can begin to see why one might be happier living in a poor but lively neighbourhood in Rio de Janeiro, with lots of fiestas and weddings, than in a pristine but lonely suburb of Palm Springs.

There's one other factor we have to mention here that has a big influence on happiness and that is social capital.

Money and social capital

Having friends and family is important. Extremely important.

Feeling that your life is <u>as good</u> as the lives of your family and friends is even more important.

Keeping up with the Joneses is quite good for your wellbeing actually.

It's good to make some <u>new</u> friends too. As the composer

John Cage wisely noted, "If you want to make the world a better place, spend more time with people you haven't met yet."

So where does money fit in to all that?

John Paul Getty, who knew a thing or two about money, was perhaps one of the first to make the connection between social and financial capital – however inadvertently – when he said 'money isn't everything. But it sure keeps you in touch with your children.'

Those of us not as rich as John Paul Getty but similarly blessed with lovely boomerang kids know how true those words are.

Money helps. But the relationship between money, wellbeing and happiness isn't only about quantity it's about quality.

Quantity, happily, is not one of my responsibilities. Quality – in the sense of how people manage their money – is.

Money, debt and wellbeing

If you look at how we manage our money, you'd think we wanted to be unhappy

- Seven out of 10 couples don't discuss their finances.
- Seven out of 10 people are unprepared for an unexpected drop in income. (The number of people who say they have no spare cash rose by six percentage points in a year to 27%, according to the latest of Neilson's consumer confidence surveys.)
- More than 8 out of ten don't think their state pension is going to be enough...
- ...But a third of them still aren't budgeting for their retirement.

So, us behaving like ostriches is less surprising when you take into account our general financial ignorance.

- Seven out of 10 mortgage holders wouldn't know how much more they'd have to find each month to cover a one per cent increase in their interest rate.
- Some don't even know if they've got a fixed rate or variable or discounted or tracker mortgage.
- Two out of every five people have no idea what an annuity is.

The situation is obviously even worse for people in debt. The Foresight project on mental capital recognised debt as a significant risk factor for mental disorder. It found mental health is improved by quality time spent with family, friends, colleagues and neighbours. But declines with debt and money worries.

Financial Services Authority research has made a broader connection between money and mental health. The analysis it published in 2009 – looking across 16 years of the British Household Panel Survey – found lower financial capability was associated with higher risks of ill health related to anxiety and depression – regardless of the level of income.

The authors even managed to put a figure on it.

Respondents who felt moderately in control rather than out of control of their finances were 15 per cent less likely to suffer from ill-health because of anxiety and depression. And that's a big difference.

Our new research

Today we have published a new analysis of the British Household Panel Survey.

The Institute for Social and Economic Research has mined the data again to explore the long term impact on happiness of financial capability. The main conclusion is that poor money management skills have pretty negative consequences. No surprise there.

This new analysis shows how a person's financial capability at any given point in time doesn't just have an immediate effect on their wellbeing. It has longer lasting consequences for income, living standards and savings behaviour. And while satisfaction with life improves with improving financial capability, past mistakes still leave their scars.

For some people it's even worse. Left to their own devices, many people who are struggling with money today continue to struggle tomorrow. And they will still be struggling years later.

The damage that this does is like smoking – it accumulates over time.

But there is a more optimistic similarity with smoking. If you quit smoking your body begins to repair itself immediately. Over time, it returns towards the state it was in before you first lit up.

It's similar with money management. Act now and there is an immediate effect. And the sooner you act, the greater the benefit for a

longer period of time.

Every cigarette you don't have is doing you good; every bad financial decision you don't make is doing you good.

But you can't get away from it. As far as money is concerned we have inadvertently concocted a recipe for unhappiness, heaven help us.

That's partly because the market has changed and so has consumer behaviour.

There has been a huge change in our spending habits. We save less and spend more. Our lifestyle choices; the availability of credit and consumer goods; the complexity of financial products – all these things have changed dramatically.

Speaking for myself, I don't regard all this as altogether a bad thing. We want competitive, innovative retail financial services market and we want people to have access to responsible credit.

If it's good enough for some then it's our job to make it good enough for everyone.

Solving this conundrum is what attracted me to CFEB.

Most people know what makes them happy. But what we <u>know</u> is not reflected in what we <u>do</u>. It's not reflected in our behaviour. So how do we align knowing with doing – attitudes with behaviour?

Let me put it another way.

In a moment of bleak honesty towards the end of her life the great Anglo-Irish novelist Elizabeth Bowen said that she had 'sought out sensations but withstood emotions.'

The question for us – in the age of instant gratification

– is how can we help people withstand sensations but seek out emotions? Emotions like happiness.

A new approach

It's pretty clear to me that traditional policy approaches won't make much of an impact on this problem.

First, because people are complicated.

Traditional levers use tax incentives or tax penalties to manipulate choices in a certain direction. But choice is much more complex now and people don't always act in the rational way that classical economic theory predicts they will.

Second, because society is less vertical and more horizontal.

We are increasingly getting our information from our peers – many of whom we don't even know – rather than from government, teachers or parents. Of course, the digital world has given us access to hundreds, thousands, millions of voices. We aggregate and amplify the noisy crowd all the time.

Influences from authority are much reduced. Again I don't think that's such a bad thing. A little less deference and a little more free thinking is good for your health, I reckon.

The third reason we need a change is because the traditional policy approach is to compartmentalise groups in order to target action.

But we don't fit so easily into social compartments anymore. People are less willing to be defined by their age or their ethnicity or their social class.

It is not as easy as A, B, C1 anymore.

The Money Advice Service

Put all this together and I think the task of financial education – of raising financial capability – is not just to steer us away from bad decisions, but to enable everyone to achieve their aspirations.

That's why I don't see my organization as just a problem-solving service. We are also, as it were, a happiness service – an aspirations service.

Our job is not just to make people's problems smaller, but to help people to make their lives bigger.

The landmark review of financial advice conducted by Otto Thoresen in 2008 was enormously helpful in pointing the way ahead for us. Building on Otto's work we are about to morph CFEB into the Money Advice Service

We have chosen this name and this approach very carefully.

- We don't want to just give out <u>information</u>. We want to provide <u>advice</u>. Advice that leads to action. Though we will obviously not cross the regulatory boundary.
- We want to provide money advice to everybody that wants it not just those who can afford it or those in the greatest need but the huge majority in between as well.
- We want people to know our service is unbiased and we want them to know we are not trying to sell you anything.

So these are our watchwords:

- Unbiased
- Universal
- Aspirational

We want our service to be available when, where, and how people want it – so we will be re-launching our online offer from scratch.

And we want it to be a personal service based on a brand new financial health check tool that we're developing and which we'll launch in the spring.

We'll need all your help – in the industry, in government and in the third sector – to promote the health check tool to as many people as possible.

Our intention is that millions of people will use our website as their online destination of choice for money management and financial planning.

These are all demanding, ambitious plans. But we need to go even further than that.

If we want people to take decisions – not just receive information –

we need to be there for people when their lives are going through a transition.

We have done good work for people becoming parents and for people getting divorced and separated. We will build up our service at these key life transitions. In particular, we are building an offer for young people as they move into adulthood.

Adding value

We're funded by the levy on the financial services industry and that is a huge privilege in these dark economic times. We absolutely must demonstrate in return that we are making a difference and that we are value for money.

We'll do that in three ways.

First, by tracking who does what as a result of our advice and reporting on that.

Second, by working with and through others wherever we can and by making sure we don't duplicate what others can do better than us.

Third, by making good use of what we learn. Our front-line contact with consumers means we'll be the canary in the coalmine. We'll be picking up the early signs of any new issues emerging, which we can raise with the industry and the FSA – and the CPMA before long.

Over time – by analysing every single click and question – we'll be building up intelligence from hundreds of thousands of connections and conversations with people about managing their money.

We are going to have a vast and unique pool of insight and knowledge and we will want to share that knowledge with our stakeholders, whom we hope will come to think of themselves as members of the Money Advice Club.

Conclusion

So that's a rather breathless gallop through our thinking,

our evidence and our plans for the Money Advice Service.

That's how we are planning to make a difference to people's financial planning and decision-making – and perhaps even to happiness.

It was the King of Bhutan who said he wanted to mea-

sure Gross National Happiness.

Well, my job is to try and maximize gross national happiness.

That's the closest I'll ever get to being the King of Bhutan. ◆

BEST-WRITTEN SPEECH BY ORGANIZATION—ENERGY

There Is More Than One Inconvenient Truth

Writer, James Evans; Speaker Thomas F. Farrell II, Chairman, President and CEO, Dominion Resources Delivered at the Dominion Energy Symposium 2010, Harvard Business School, Cambridge, Mass., Oct. 23, 2010

Good afternoon. I am delighted to be with you. For those of you who listened to the earlier panel discussion, I am sure this is an extra treat. You get me twice in one day. But then you bill this symposium as "the largest energy focused event at Harvard University," and I figured it would not hurt to double-down.

Fact is, there is plenty to talk about.

And more to the point – actually, this is exactly the point I want to make this afternoon – we need to talk about energy in better, more informed, more realistic, more constructive ways.

A few caveats, however.

The term "energy" takes up a lot of territory – just about all the territory there is, in fact – and definitions count for something.

Besides, when you enter into a discussion of a large, complex issue, it often helps to define your terms and stay within your area of expertise.

I am privileged to lead a large company that produces and transports electricity. Dominion also operates the nation's largest natural gas storage system and one of its largest natural gas pipeline systems.

If you imagine the U.S. shaped as a box, we do business in the northeast corner – from the Midwest to New England, south to Virginia and a portion of North Carolina.

Here in New England, we are the largest supplier of electricity. We operate nuclear and fossil-fired generating stations that constitute a large part of our merchant fleet.

In contrast, in our home state of Virginia, we operate the state's principal regulated electric utility.

About 55 percent of Dominion's total electricity production is fossil-fired – using largely coal and natural gas. The rest is emissions-free nuclear power and renewable energy in the form of hydropower, biomass and wind. As a result of this balanced fuel mix, we are in the top third of all U.S. power producers in minimizing carbon intensity, according to the most recent report from the Natural Resources Defense Council.

Speaking of the environment, Dominion is in the midst of a multi-year nearly \$4 billion investment program to im-

prove the environmental performance of our fossil stations. When completed in 2015, we will have reduced sulfur dioxide and nitrogen oxide emissions at our regulated coal stations by more than 80 percent, and mercury emissions by nearly 90 percent below what they were in 1998.

Here in New England, where we supply about 20 percent of the region's electricity, we are achieving similar improvements in environmental quality. We are investing more than \$1 billion on advanced pollution control equipment – including a closed-loop cooling tower system at the Brayton Point fossil station in Somerset, Massachusetts. When completed in 2012, the cooling towers will reduce the amount of water withdrawn from Mt. Hope Bay by more than 90 percent.

All told, Dominion does business in a potential market of 50 million homes and businesses where about 40 percent of the nation's energy is consumed.

That market includes an astounding array of global high-tech companies – including many headquarters – as well as such undertakings as the Pentagon, the CIA, the world's largest Naval base, the Navy's Atlantic Command and the new Homeland Security centers.

Along with our national security establishment and the high-tech sector, our job is to provide reliable and reasonably priced electricity to rural, urban and suburban populations – a responsibility that must be met without fail 24/7, 365 days a year.

So that is who we are.

I mention this to establish the fact that we do not make cars – or trucks, either – though an innovative aspect of the transportation business is about to involve electricity in a rather large way. I will get to that toward the end.

Generally speaking, however, oil actually has very little influence on the power industry. As a fuel source, oil-fired generation accounts for only 1 percent of the nation's electricity production.

Those who claim that we need to use windmills to reduce our oil imports – you may have seen a commercial or two – are confusing cars and trucks, which run on liquid fuels, with power stations that produce electricity – princi-

pally from solid and gaseous fuels.

That is an important distinction to keep in mind. Lumping together transportation and power generation muddles a debate that is already muddled to begin with.

It is bad enough as it is, because our habit on energy issues is to talk past each other, to fall back on time-honored slogans and to reach for illusory remedies.

Such has been the way of things for a long time in this country, and it contributes mightily to the policy failure.

That is, if we *had* a policy – a <u>national</u> energy policy. Which we do not.

Jon Stewart – a product of Virginia higher education, I might add – has a way of getting to the heart of our national problems. Not long ago he ran a series of recorded clips from a few of our presidents.

I took notes. I always take notes during "The Daily Show."

"Let us unite in a major new endeavor that in this bicentennial era we can appropriately call 'Project Independence.' " – Richard M. Nixon, 1973

"We must wage a simultaneous three-front campaign against recession, inflation and energy dependence." – Gerald Ford, 1975

"Our decision about energy will test the character of the American people, and the ability of the president to govern this nation. This effort will be the moral equivalent of war." – Jimmy Carter, 1977

"We will continue to support research leading to development of new technologies and more independence from foreign oil." – Ronald Reagan, 1981

"There is no security for the United States in further dependence on foreign oil." – George H.W. Bush, 1988

"We need a long-term energy strategy to maximize conservation and maximize alternative sources of energy." – Bill Clinton, 2000

"This country can dramatically improve our environment, move beyond a petroleum-based economy, and make our dependence on Middle Eastern oil a thing of the past." – George W. Bush, 2006

"For decades, we have known the days of cheap and easily accessible oil were numbered." – Barack Obama, 2010

Over this same nearly forty years, our oil imports have almost doubled.

Now – to me – this suggests a problem. It tells me that we need to unpack the national energy conversation.

First, allow me a point of personal privilege. I have an ingrained, deep-seated, personal bias: The numbers must add up.

The ethos of our industry is grounded in the physics of engineering. It is a brutally empirical business. I strongly suspect that we have some incurable romantics at Dominion – but we keep a close eye on them.

I believe – and this is the basis of my remarks today – that we will never do more than react to circumstances – piecemeal, incrementally and often inconsistently – unless we establish a realistic, factual basis for discussing our choices.

We do not have that right now, and it shows. There is no national energy policy. We react. We adjust. We hyperventilate. But it all occurs within the framework of the immediate.

In fact, we have never had a national energy policy – except perhaps during World War II, when the policy was simple: rationing.

Still, like Thomas Jefferson, whose boyhood home is just a few miles down the road from my own home, I am an optimist. Even when there was ample evidence to the contrary, Jefferson always believed that reason could rule. And so do I.

Reason tells us that there are many inconvenient truths about the way we generate electricity and use power in the U.S.

Here are three right off the top – three big ones:

- (1) We like the lights on.
- (2) Folks really do not know or understand what keeps the lights on.
 - (3) What little we do know, we do not like.

Let's start with the first inconvenient truth: We like the lights on.

We like the lights on so much that every time the barometer drops my pulse increases.

Service interruptions are not incidental to our customers; they are often traumatic.

This describes a simple and elemental truth: We like what electricity does for us, we want more of it – and, by the way, so does the rest of the world.

For the first time in our national history, Americans are spending more on electronics than they are on durable goods.

They are spending more on iPads and flat-screen televisions – and less on furniture and lawn mowers.

In 1980, the average U.S. household had just three consumer electronic products –

three. Today, it has about 25. How many do you have? The U.S. government gives us these numbers. They were recently reported in *The Wall Street Journal*.

But the numbers also appear in the form of electricity demand on our control room computer screens.

The Journal cited the buying choices of one 27-year-old man who, over the past year or so, spent about \$8,000 on new electronics – including Apple's iPhone 4, a MacBook Pro, an iPad and an iPod.

He also bought a Blu-ray video player and a \$2,000 stereo system.

Do you think he thought about the electric power implications of his purchases? Not very likely.

Almost no one ever does. Americans take their power for granted.

They assume it is reliable.

They assume it is low cost.

No surprise there. Many Americans pay substantially more for their cell phone or cable TV service than they do for their electricity.

You know it worked out this way on purpose. Utilities

have done precisely what the public has asked us to do.

Americans want power safe, cheap, abundant and – most important – ON – all the time.

And, in order to comply – to make it reliable – utilities made massive investments in generation and transmission infrastructure.

It has been a good bargain for all concerned. Cheap, reliable electric power transformed America. Better – indeed – far better than anywhere else in the world.

We created a \$14 trillion economy based on the ability simply to reach out and hit the switch and have the lights come on – inexpensively.

Energy gave us what we know. How we live. How we work. Our sense of what is possible.

It took roughly half a dozen generations of Americans – over a century –and a vast amount of capital – to get us to this point.

A mere three generations ago Americans were still working on rural electrification – your grandparents.

Consider the South, which includes our service territory. Do young people really understand, or have their parents forgotten, that until the Second World War, that region remained economically isolated and undeveloped?

Do they know, or remember, that large sections of the rural South had no access to electricity at all – that the entire Southern economy was hampered by inadequate power resources?

Do they know, or have they forgotten, that only when the South had abundant and affordable electricity was it able to attract large-scale manufacturing and the jobs that went with it? Think of the political and demographic changes that have resulted from that investment.

As this example reminds us – given the essential life force that electricity represents in our lives and the economy we rely upon, you would think that we would want to be careful and thoughtful about how we use it and provide for it, right?

Yet, we know for a fact – and this is inconvenient truth $\underline{\text{No. 2}}$ – that our customers have only a vague understanding of what it takes to generate, transmit and distribute electric power.

So, do you know what keeps the lights on? I confess that when I joined Dominion 15 years ago, I had very little idea.

The answer is ... water, mostly. The pressure created by vaporized water turns power turbines – which then turn magnets around a coil, just like you learned in high school physics.

The trick is to vaporize the water.

It takes heat. On a vast scale. And fuel to make the heat. Generally, the easiest, cheapest way to do that is with fossil fuels – though at present uranium is the least expensive of all.

This is not about love or some emotional attachment to the past. It is about availability, results and cost. With fossil fuels you get sufficient heat, at the scale required, inexpensively.

But do Americans really care one way or another? Increasingly so – certainly a lot more today than they did 10

years ago – and I for one am thankful for that.

But there is still considerable evidence that most consumers view electricity simply as a commodity. In fact, they almost never think about it at all. How it is generated is of little interest to most Americans.

The facts of generation – largely removed from public consciousness – make it possible for the next inconvenient truth to flourish and prosper.

Namely, a ready willingness to turn our backs – casually on what keeps us going.

<u>Inconvenient truth No. 3: What keeps the lights on –</u> we do not like.

Let me try to make my point with a home town reference. In August, when Johnny Damon was thinking about coming back to the Red Sox, there was a wonderful column in *The New York Times* by Tyler Kepner.

Damon, of course, stayed in Detroit, but at the time Kepner wrote that the "folks at Fenway Park will face the ultimate test of the Jerry Seinfeld Theory that sports fans basically root for laundry."

According to Seinfeld, "Fans will be so in love with a player, but if he goes to another team, they boo him. This is the same human being in a different shirt – they hate him now."

The point is that the public mentality when it comes to baseball – or sports, generally – can be a bit ridiculous. Reason does not rule – except, of course, in Boston.

And that is fine, as long as we are talking about sports. But when serious, complex issues come along – such as energy, an issue that shapes and defines our quality of life – can we afford the same quality of public discourse?

I can give you six words that say, "No, it cannot." Here they are: "Fossil fuels, bad; renewable energy, good."

Seldom does the debate get past that simple formulation. In fact, those few words have gone far toward shaping America's energy thinking.

The American public loves the idea of renewable energy. But a disconnect remains between the objects of our affection and what we get in return.

And that disconnect constantly influences how we examine our choices. Case in point: A front page article last month (September 29, 2010) in *The New York Times* with the headline, "Ancient Italian Town Now Has Wind at Its Back."

You might have seen this already. Did you read all of it? Big picture right under the masthead. A graceful, familiar landscape. Small town framed against green hillside.

Olive groves. Four giant wind turbines.

And, true to Italy, tons of romance. The little village becomes energy independent. A renewable revolution. The very old meets the very new.

But only when you get to page 4 do you get a picture of the necessary economics: namely, high electricity costs melded to big subsidies.

And not until the last column do you discover that this energy-independent town is not using its own wind-gen-

erated power, but selling the electricity it makes into the national grid.

The town's residents, the story says, "do not use the electricity it produces directly because relying entirely on local wind energy could leave the town vulnerable to blackouts during periods of calm."

That happens to be – not a small, inconsequential detail. Italy is no exception. I am going to mention a couple of recent books today – maybe I should hand out a syllabus?

There is one by David MacKay, a physics professor at Cambridge – the other Cambridge. A year ago he was appointed Chief Scientific Advisor to the U.K. Department of Energy and Climate Change.

The book is focused on the United Kingdom and is called *Sustainable Energy: Without the Hot Air*.

I highly recommend it. Do I agree with everything he says? No, but there is a first-rate mind at work here. He disciplines his approach with a bias I share, in that he argues we need "numbers, not adjectives."

Dr. MacKay is strong on renewables. He assumes people want a future less reliant on fossil fuels. But alternative energy sources have to add up against consumption – and he insists on tracking how people actually behave and react.

On that score, he has a clever little list: His words:

Geothermal: Too immature!

Wave energy: Too expensive!

Deep offshore wind: Not near my radar!

Shallow offshore wind: Not near my birds!

Biomass (food, biofuel, wood, etc.): Not in my countryside!

Photovoltaic farm: Too expensive!

Wind: Not in my back yard!

Professor MacKay specifically refers to British attitudes, and he does not mean to be discouraging.

He is simply pointing out that "green ambitions" and "social reality" often run into each other.

That has been Virginia's experience with the development of wind farms. Come down to the Appalachian ridges of Virginia and I will introduce you to the folks there.

You will be struck by the bond they have formed – at least on this one subject – with the people of Nantucket.

Of course, broad change of any kind – in Italy, the United Kingdom, in Massachusetts, or in Virginia – invariably will inspire resistance. That is in the natural order of things.

Factor in the natural order of democracy – which bars us from ignoring public opinion – at least for an extended period – and you see that we are not merely troubling ourselves with picky details.

There are any number of other inconvenient truths, not the least of which is the potential for renewable energy sources to fill the gaps created by less reliance on fossil fuels.

I refer you to another new book – take notes, this will be on the final exam – from the University of Chicago Press. It is called *The Powers That Be*.

It is written by a geologist – Scott Montgomery – and he says that "the idea that [renewables] will run a major part

of the world, especially in a mere decade or two is fantasy." He is right.

And investors seem to think so, too.

Earlier this month, for example, *The Wall Street Journal* reported on two IPOs – initial public offerings – with each sale worth about \$3.5 billion. One involved an Italianowned green energy firm, the other an Indian coal concern.

The renewable energy shares closed flat on the first day of trading after falling as much as 4 percent during the day. In contrast, shares of the Indian coal company soared by 40 percent on its debut.

The market appears to be telling us that black beats green, that coal is still king.

In nearly all instances, renewable sources of energy are "in addition to" not "in place of " fossil fuels.

According to Cambridge Energy Research Associates, nearly every country that installs wind turbines backs them up with natural gas-fired generators. They have to – for reasons of reliability. The wind blows according to the whims of Mother Nature – not human demand.

I am sure you saw the announcement last week that Google intends to lay a transmission cable in the Atlantic from New Jersey to Virginia. They estimate that over a 20-year period the line will support up to 6,000 megawatts of electricity. Sounds like a lot. Game changer? Google does it again? Those savvy internet guys solving the problem?

Not exactly. Renewable energy sources have a fundamental problem with scale. Today – not accounting for 20 years of expected growth – today – our nation has about 1.1 million megawatts of installed generating capacity. So 6,000 megawatts of new renewable capacity would represent only about one half of 1 percent of the total.

The region these offshore wind farms would serve has about 170,000 megawatts of installed capacity – meaning these potential developments would account for only about three percent of the regional total. IF you include the U.S. government's estimate for capacity needs in 2035 – which is 205,000 new megawatts – you can see that 6,000 megawatts of capacity is less than a drop in the ocean.

So – does that mean we should not build them? No, of course not. It means we need to be realistic when we talk about what renewable energy can accomplish.

It is also worth noting that renewables feed on land. These are rough estimates, but wind power requires about 45 times as much real estate to produce a comparable amount of power as a nuclear station.

Some estimates on the transmission requirements for wind-generated power alone run up to 40,000 miles of giant, new lines that – some say – mar the horizon.

Now, some of these problems could be overcome with commercial-scale electricity storage – if such technology existed.

Unfortunately, we have not yet figured out how to store electricity nearly as well as the way Mother Nature stores energy in coal, natural gas and uranium – and we are not

even close after 100 years of trying very hard.

Another book – my final text for the day – is called *Power Hungry* by Robert Bryce, who describes himself as an "industrial-strength journalist."

Bryce points out, "The idea of a large-scale storage facility for electricity is something akin to cold fusion or the perpetual-motion machine: wonderful ideas, but existing only in the imagination."

As it stands, power is the ultimate "just in time" business, where energy losses occur at every stage in the process. It has to be used as it is created. That is a fundamental fact that we cannot wish away.

These are physical facts. Not all sources of electric generation are equal.

This is not to say that our relative capacity for producing power is locked in. You look at the advancements in renewable energy technology and you cannot help but be impressed.

But, still, the actual contribution to what we need to fulfill the prime directive – keep the lights on – remains small. <u>Very small</u>.

Now, there is another response to this and it usually arrives in a one-word package: "conservation." Stop using so much power.

It is a laudable goal. You can always turn things off.

But as a practical matter, for most consumers, electricity is too cheap to save.

No doubt that will change. The emergence of smart grid technology has that potential.

In a car, for instance, the speedometer is located where you can see it. It is right there in front of you and, presumably, affects the pressure you apply on the accelerator.

Smart metering holds promise for achieving a similar effect on household energy use. It puts eyeballs into the equation. People will see what they are using, as they use it.

And, in theory, consumers will be more prudent about consumption. In theory.

Here is another inconvenient truth – No. 5, if you are keeping track – the futility of pursuing energy independence in a world that is increasingly <u>inter</u>dependent, with energy markets becoming ever more competitive and global in their scope.

Take the notion that America can – and should – achieve energy independence and liberate itself from foreign sources of energy.

It is an unattainable goal. It contradicts the reality of today's global economy and a \$5-trillion-a-year global energy industry in which the U.S. is the largest consumer and the third largest producer.

If anything, we can expect energy markets to integrate further as the global demand for energy grows and new energy supplies become more difficult to find and more expensive to produce.

Here in the U.S., coal accounts for about half of all the power we produce. It will remain the principal fuel for

electricity production for the foreseeable future – both here and abroad.

World coal consumption, about 6.7 billion tons in 2006, is set to reach about 10 billion tons this year – a nearly 50 percent increase in just four years. Coal simply is not about to disappear from the generation of electricity.

In fact, according to Peabody Energy, the world's largest private coal company, the global coal industry is in the early stages of a long-term "supercycle" led by China and India that will last for decades and will require more than 1 billion tons of additional coal production worldwide.

China produces about 70 percent of its electricity from coal, while the United States deploys 90 percent of the coal it consumes – some 14 percent of the world total – in electricity production.

My point is this – the use of coal will continue – and so will our efforts to improve its environmental performance. The most serious pollutants from coal can be removed and properly disposed, safely re-used or stored. It can be done and many are doing it. Dominion has made tremendous progress in cleaning the air and water, and we will continue to do so.

I do not mean to imply that coal is a perfectly fine fuel and we should just quit worrying about it. I do not believe that nor espouse it here. It has significant social costs. But the hard, cold fact is – we cannot wish it away. We need to be honest with each other as we discuss the future. It will take more than one generation to transition to a cleaner electric fleet – that is, if we had an energy policy to achieve it – which we do not.

In any case, we need to recognize that the rest of the world is coming on – and they are coming on <u>fast</u> – some 2 billion people – one-third of the people on the earth – are without electric power today.

And, they intend to get it. Just ask them.

Professor MacKay points to another inconvenient truth – No. 6 – that is – "little counts for little."

Again, he is talking about the U.K., but it applies to the developed world generally. It certainly applies to the U.S.

He says, "Have no illusions. To achieve our goal of getting off fossil fuels ... reductions in demand and increases in supply must be big. Don't be distracted by the myth that 'every little bit helps.' If everyone does a little, we'll achieve only a little. We must do a lot. What's required are big changes in demand and in supply."

That is about right. He says little adjustments here and there tend to miss the larger reality of what has to be changed.

Such as when we set carbon emissions goals.

For instance, last year the White House announced its goal to slash U.S. greenhouse gas emissions by the year 2020 by 14 percent below 2005 levels, and then by 83 percent below 2005 levels by the year 2050. That is about the same as the Kyoto goals. Ever wondered why folks never state an actual amount of carbon emissions – but use a convoluted reduction formula instead?

We need to put this in historical perspective to understand what it means. What it means is – returning to the days of Warren Harding, Calvin Coolidge and Herbert Hoover – that is when the world last produced that level of human-related carbon emissions.

We are talking about the decade of the 1920s – nearly 100 years ago – when, according to the U.S. Bureau of the Census, only about half of the nation's non-farm homes had electricity and less than 2 percent of farm homes were electrified.

Who had air conditioning?

No one.

Who had a computer?

No one.

Who had a flat-screen TV and a Blu-ray player?

No one

Who had a cell phone or a BlackBerry, or an iPod, or an iPad?

How many data centers were there in the world?

Talk about an inconvenient truth.

So, does this make me a climate change denier? Absolutely not.

What it means is – we need to be honest with ourselves and not get lured down a dead end with simplistic, unworkable remedies.

We must have a plan that adds up – a plan that truly reflects how we live and work, a plan that takes into account our reliance on electricity and the fuel sources we need to keep the lights on.

I was struck the other day by something written by Tom Friedman – the economist gifted with a knack for capturing inconvenient truths.

He applauded the Obama administration – as do I – for advancing eight "Energy Innovation Hubs": smart grid, solar electricity, carbon capture and storage, and other exciting possibilities.

The broader idea behind these hubs, as explained by Energy Secretary Chu, is to "capture the same spirit" that produced radar and the first nuclear bomb. End the incrementalism. Push the boundaries. Change the game.

Without necessarily buying into all the specifics, I admire and support the mindset... that we need to do things that are commensurate with the task at hand. Let us liberate ourselves, if you will, and think big.

So how might we unpack the energy conversation and ignite our national will?

What forums could be created to lift and improve the public debate?

What actions could we take to confront tired, existing assumptions and, as Friedman puts it, "help unlock and scale everything that America knows?"

Well, for starters, brace yourself – I know this is one recommendation destined to inspire groans – but we need something in the way of a <u>national commission</u>.

It could resemble BRAC – the Base Realignment and Closure Commission – a process that tackles controversial, politically unattractive choices about military facilities – and still gets results.

I come from a state with one of the heaviest concentrations of military facilities in America. If you want to see a public official make a face, just say "BRAC."

Yet, the process gets results. Not perfection. Results. Results are good.

The commission could be presidential or congressional or both

It just needs to work!

We will need the energy community and environmental constituents, as well as federal and state regulators. We will need minds like yours. We have to get them all at the table because we have to stop making energy and environmental decisions in a vacuum.

Whoever participates has to arrive prepared to compromise. It will never fly otherwise.

We have to achieve a long-range plan – looking out a minimum of 10 years – 20 is probably better – so that we can arrange the necessary capital and permits.

Obviously, the plan would have to have a national perspective, with a firm grasp of global realities.

It would ask the right questions and address the options we have for confronting climate change and bringing about a low-carbon economy.

It would inventory energy demand, present and projected, based on what is real and measureable.

It would show the significance and cost of each available approach.

It would catalog the transmission network we need to build in order to realize the desired growth in renewable energy projects.

It would ask the right questions and would not flinch. Big questions.

Are federal agencies structured in a way that promotes the development of a rational, long-term national energy policy?

Or does the totality of this apparatus make it harder, if not impossible, to achieve?

I am just asking.

Do our laws, for instance, instruct federal agencies to develop an acceptable level of environmental protection, balanced with reliable and affordable electricity?

Or do they create a mandate that is inconsistent with social and economic reality – meaning the way we actually live and work?

Ultimately, I believe, we must center our energy policy on the concept of <u>security</u> – the most meaningful principle, as it recognizes the interdependencies, scale and complexity of the energy supply system.

Energy security is rooted in a number of different things: Supportive legislation and regulation that provide access to and responsible development of our domestic resource base: natural gas and oil, both onshore and offshore, as well as coal and uranium.

A modernized, smart power grid – empowering consumers and moving electricity reliably and efficiently to population centers where it is needed most. Here is where conservation may yet have a chance to promote reduced energy demand, lower costs and protect environmental quality.

Robust international relations and trade that help maintain stability and long-term economic growth.

And perhaps most important of all, reliance on the <u>full</u> range of energy sources at our disposal.

Energy diversity is really the key to America's energy security. As any decent financial adviser will tell you, the best hedge against a market is a diversified portfolio. You knew that – even before you came to HBS. The same is true for energy.

As a nation, we are in no position to pick a few favorite sources of energy and exclude others. We need to draw on every resource at our disposal – coal, nuclear, oil, natural gas, renewable energy and also more aggressive conservation.

Renewable energy sources – will certainly be an increasingly important part of our energy future.

They have real environmental advantages, but they are useful only in limited applications, but as I pointed out earlier, they will always remain that way unless we crack the code on storing electricity at a very large scale. And that technology is nowhere in sight at the moment.

But the potential for it to emerge raises an interesting prospect.

Back to Tom Friedman. The other day he was pointing feverishly to what he called the "game-changer": The electric car.

The electric car industry could be pivotal. After all, it was the auto industry that laid the foundation for America's manufacturing middle class.

And what if the notion takes hold that the way to reduce oil dependency is to move toward more electric transportation?

What, indeed?

Obviously, as Friedman points out, the country that replaces gasoline-powered vehicles with electric-powered vehicles – could win a huge advantage.

But reality intrudes a bit here, too. A survey taken last month by the *Financial Times* finds that three quarters of American and British consumers would consider buying an electric car – but not if it costs more than a conventional one.

Yet the survey offers some encouragement in underlining a growing consumer willingness – mostly based on fuel costs – to consider an electric alternative.

This gets the attention of those of us who make electricity. We are obliged to monitor these shifting attitudes.

Mr. Bryce points out that we have been down this road before – he notes that *The New York Times* once declared that the electric car, "has long been recognized as the ideal solution because it is cleaner and quieter and much more economical."

That was in 1911 by the way – a century ago – and we have been working on batteries ever since.

Still, we may be destined to advance back to the future. If so, we better have the juice – the electricity – to support what would constitute a major shift in consumer preferences.

It all comes back to having a policy in place that realistically assesses how we live and work and prepares us accordingly.

I believe we <u>can</u> achieve a balanced and well-designed national energy policy and have a cleaner and more secure energy future.

But it will not come quickly or cheaply or without a higher degree of candor with the American people.

To sum up, if we have the courage to move from the realm of generalized mythology to the specifics of 21st century reality, we might just succeed in shaping an energy future that is to our liking – instead of letting it shape us.

A national energy policy could emerge with a renewed national conversation.

Clearly, the task is daunting – but it is doable. We must outline the choices before us and bring the players together.

Wall Street must help us find and deploy the capital we need to build and modernize our aging energy and electricity infrastructure.

State and federal laws must mirror the new realities, and the new conversation.

The first step is unpacking the conversation and changing how we speak about energy.

I say – let the discussion begin – and I hope you will join in. ◆

BEST-WRITTEN SPEECH BY ORGANIZATION—GOVERNMENT

These Brave American Soldiers

Writer, Annelies Breedveld; Speaker, Eimert van Middelkoop, Dutch Minister of Defence Delivered at Margraten War Cemetery, Margraten, Netherlands, May 30, 2010

Your Majesty, Secretary of Veterans Affairs Shinseki, relatives of the fallen American soldiers, veterans, distinguished guests,

When I was sixteen years old, I set out on my first independent summer holiday. I took my bike and – together with my best friend – went south on a cycling trip.

We visited Belgium. We visited France. But my most vivid memory of that first holiday on my own is our stop here, at Margraten War Cemetery.

As I stood here as a young man, I was impressed. Impressed by events that had taken place twenty years previously. For me, at the age of sixteen, these soldiers had fallen a long time ago. This war was history.

It is something of a paradox, but time has brought Margraten closer to me. Growing older, I realised that it is also part of <u>my</u> history, and now I see this hallowed ground with different eyes.

Now, having sent soldiers on a mission, I know these soldiers had their own childhood dreams.

Now, having had soldiers killed in action, I know the lives of their loved ones were changed forever.

I know now, that behind every one of these eightthousand three-hundred-and-one white headstones we see here, there is a story.

Stories of hope, ideals, friendship and the determination to strive for a better world. Like the young Eimert van Middelkoop on his bike twenty years later, they had their future in the palm of their hands.

Like Private Fred Farris who one afternoon in March 1944, closed his business in St. Joseph, Missouri, and walked up the street to the main post office and volunteered for infantry duty. To fight for his country, as he told his mother.

Private Farris fought his way across France, Belgium, Holland and into Germany with the Old Hickory Division, the Workhorse of the Western Front. His platoon was ambushed and Farris was killed in action on the 22nd of October 1944. He is buried here at Margraten in Plot A, Row Five, Grave Nine.

Like Private First Class Walter C. Wetzel from Huntington, West Virginia of the 8th Infantry Division, who threw himself onto two German grenades to shield his colleagues from the explosion. Private First Class Wetzel received the Medal of Honour and rests here in Plot N, Row Eighteen, Grave Ten.

Like Private William F. Davis of the 101st Airborne Division. A brave paratrooper from Newport, Virginia, who

jumped during Operation Market Garden to outflank the German enemy. He died under unknown circumstances, far away from home. Private Davis rests here in Plot G, Row Four, Grave Five.

The stories of Privates Farris, Wetzel and Davis are the stories of the eight-thousand three-hundred-and-one American soldiers who were laid to rest here in honour. Their stories share but one ending. In their family homes back in the United States, the star in the window turned from gold to blue. Indicating that a son, brother or husband had died in the service of their country and the ideals for which it stands.

These stories also tell a greater story.

The story of America's brave soldiers who came to the other side of the ocean.

To fight against terror.

To fight against oppression.

To fight against the merciless persecution and annihilation of millions of Jews, gypsies, the mentally ill and anyone who resisted Adolf Hitler's obsession for *Blut und Boden*.

Thanks to their resolve, the oppressor was stopped and the Netherlands – indeed Europe - was liberated.

To these soldiers, we are forever grateful.

We honour their names.

We honour their memory.

We honour their relatives and fellow soldiers present here today.

Many of the soldiers who fell, rest here at Margraten, some Known But to God.

I stood at the grave of an unknown soldier, in our spring holiday just a few weeks ago, when I privately visited Margraten with my wife.

At that grave, I saw fresh flowers delicately resting on the pristine white headstone. It touched me to see someone had made an effort for this unknown man. It made him less unknown.

It made me realise you lose a little of your anonymity if you are given a gift by someone else.

Those flowers also made me realise the depth of the word of the Lord in the book of the prophet Isaiah from the Old Testament (49:16). And I quote: 'Behold, I have graven you on the palms of my hands'.

These men may have died alone and unknown.

But they are not entirely unknown.

They are known to Him.

Even in the darkest hour,

He knows our name.

Mr Shinseki.

These American soldiers, and the veterans who are here today, gave us back our freedom.

The Dutch government has always felt it its duty to use this freedom to do the right thing. To prevent such a war from ever repeating itself. That is why we were at the forefront of founding NATO.

And that is why - as the only country in the world - we amended our Constitution to say we will promote the in-

ternational rule of law.

Since the Second World War we have taken part in many peacekeeping operations, including Lebanon, the former Yugoslavia and Afghanistan.

Together with the United States and other Allies, we work to further safety and stability around the world.

It is our <u>obligation</u> to do so. Now and into the future. It is our obligation to defend the legacy of these soldiers. The legacy to strive for freedom and justice for all. ◆

BEST-WRITTEN SPEECH BY ORGANIZATION—NONPROFIT

I Am Alzheimer's

Writer, John Santoro; Speaker, Melvin R. Goodes, Retired Chairman and CEO, Warner-Lambert Co. Delivered at "Hope Is on the Horizon" Event, Alzheimer's Drug Discovery Foundation,
The Pierre Hotel, New York City, N.Y., Sept. 22, 2010

What do you do when sit with your doctor... and he starts with the only words you didn't want to hear...

"I'm sorry...you have early-stage Alzheimer's."

Not too long ago, Nancy and I had to confront that question...because it was <u>my</u> doctor speaking...and he was addressing that difficult message...to me!

I remember my first reaction... "But Doc...I feel fine... in fact...I feel GREAT!"

And I did...I was working out each day, like a boxer. My golf game was as good as ever.

And while I recognized I had been forgetting some things...and sometimes, repeating myself...I chalked this up to the usual progression of age...and not to the advent of an always-fatal disease.

I remember coming back home after Nancy and I got the news, and just taking some time to think to myself...in the quiet that is maybe the most eloquent communication after a life-changing day.

My first thought was...I'll beat this!

After all, I had a pretty good track record of beating the odds.

Sixty years ago, when I was a teenager growing up in the steel town of Hamilton, Ontario...I was determined to beat the grinding poverty that enveloped my family.

I did that. I was the first in my family to ever go to college.

Fresh from graduate school, I was determined to prove myself, very quickly, as a leader on the rise.

I did that. At age 30, I was Warner-Lambert's youngestever country manager.

And as I turned into my 40s, I was determined to eventually lead the company.

I did that. In 1991, I was elected Chairman and named

Some people thought I was the perfect sucker for the job.

When I came to the helm, Warner-Lambert was a mess. Its total market value was less than \$10 billion...its biggest medicine had just gone off-patent...and we were described by one analyst as "amongst the walking dead of the pharmaceutical industry."

In eight short years, Warner-Lambert went from the "walking dead" to a company that Pfizer was happy to buy...for more than \$100 billion dollars.

We went from a company with practically nothing in its pipeline...to a company that discovered what is now the world's best-selling medicine—Lipitor.

Along the way...we discovered...and developed, the first FDA-approved treatment for Alzheimer's...called Cognex.

Looking over all the times I faced long odds...and didn't blink...I wondered...why can't I beat Alzheimer's, too?

And then...over a few days...the reality sets in...

Alzheimer's disease is pitching a perfect game.

I stand here today knowing that for all my determination... for all my will and resilience...for all the support I have from a loving family and wonderful set of friends... that I, most likely, will not beat Alzheimer's.

Hey...but let me tell you...I am going to try with all of my might.

And, if I can't beat it...I am going to do all I can to make sure that it **eventually gets beaten**.

My Alzheimer's diagnosis has made me a junkie for just about every scrap of information I can find about this disease.

Read enough...and it's easy to become discouraged.

Think of it... my company, Warner-Lambert, began marketing the first treatment for Alzheimer's in the early 1990s.

Now, nearly 20 years later, we have very little more in the way of effective therapeutic treatment.

The few medicines available...important as they are... treat only the symptoms...and, at best, slow the apparent progression of the disease.

Now, we find ourselves in a race that's moving into full gallop...a race between a Baby Boom Generation that will soon enter the prime years of Alzheimer's onset...and the march of science, which, for me and for every other patient and caregiver...is moving too slow, and may be too late.

We have to **speed up** the pace of science...because every day counts... as hundreds of millions of people just a bit younger than I am...begin to cross into the Alzheimer's danger zone.

That's why I am excited about the Alzheimer's Drug Discovery Foundation.

It's a brilliant model...providing investments and incentives to unleash the full force of science against Alzheimer's.

Behind the passion and energy of Leonard Lauder...and the medical expertise and vision of Dr. Howard Fillet... ADDF is working to increase the odds that we will find new approaches to treating Alzheimer's.

Nancy and I are behind ADDF all the way...and we are backing it with our money and our motivation.

I am a realist...it may be too late for me...but it is <u>not</u> too late to turn back the looming disaster of a "Generation Lost."

There won't be a magic bullet here...we won't have a single new medicine that knocks out Alzheimer's in the way that Jonas Salk's vaccine knocked out polio.

That's why we need a range of approaches...and incentives for new ideas...that's why ADDF is so important to people like me, and you are so important to the scientists helped through ADDF.

I am now convinced that we are getting closer every day...to the genuine possibility that we can change the

course of this most terrible disease.

Today, we will hear how new drugs might bypass the plaques associated with Alzheimer's...or even sweep them from the brain.

Exciting as all this is... I am a realist.

Biomedical science won't ride to my rescue.

But I will go out a happy man...if, during the rest of my active life...we see the hope we are hearing about today... come to fuller fruition.

We, in this room...can help make that happen.

The power is literally in our hands...and in our wallets. (Pause)

In closing, despite the news of my Alzheimer's diagnosis...I don't curse my luck, or feel sorry for myself.

I have had a <u>fabulous life</u>...with another great stage... to come.

I have a **great partner** who continues to be my inspiration and my love.

I have a **wonderful family** that is in this with me, every step of the way.

I'm surrounded by <u>old friends</u>...and <u>new ones</u>...all committed to this cause.

And I am determined to take my best shot at beating the odds...because I don't know of any other way to act.

My hope for today is that \underline{I} will remember, <u>forever</u>, the noble efforts of ADDF...the wonderful generosity that all of you will pour out to turn back this epidemic...and the excitement we feel today about the medicines to come.

Hope <u>IS</u> on the horizon…let's keep hope alive with our generosity…our passion…and our spirit. ◆

BEST-WRITTEN SPEECH BY ORGANIZATION—PHARMACEUTICAL

Recapturing America's Genius for Innovation

Writer, Robert Friedman; Speaker, John Lechleiter, Ph.D., Chairman, President and CEO, Eli Lilly & Co. Delivered at The Detroit Economic Club, Detroit, Mich., June 9, 2010

Good afternoon.

It's a great pleasure to be here today, and a privilege to speak to the Detroit Economic Club.

And congratulations on your milestone anniversary.

1934 was truly a good year for this city.

- A team known as the Portsmouth Spartans moved here from Ohio and became the Detroit Lions.
- Mickey Cochrane led the Tigers to the American League pennant, and was named MVP.
- And the Detroit Economic Club was formed to provide a venue to explore vital national issues ... something you've been doing with great impact for 75 years now.

My predecessor – Sidney Taurel – spoke here exactly 10 years ago. Sidney discussed the impact of medical innovation on people's lives and on the U.S. economy.

So I thought it appropriate to revisit Sidney's theme 10 years on ... to assess our progress and describe what needs to be done to ensure we don't cut that progress short.

Though a big part of my focus is innovation in medicine – and more specifically, biopharmaceuticals – my broader issue is one of great urgency for all our citizens: the danger that we are losing what has been America's greatest competitive advantage: our genius for innovation.

(Pause)

Let me begin with a simple axiom: America is the inventing nation.

Innovation is part of this country's DNA – all the way back to our founders, whose ranks included inventors like Benjamin Franklin and Thomas Jefferson ... and who set about inventing a new kind of nation.

With a long-range plan that included taming a good chunk of the continent, Americans explored every frontier – producing inventions to help conquer time and space: wagon trains and steam locomotives gave way to cars, airplanes, even rockets ... as well as movies and television ... communications and computers.

Along with exploring geographical frontiers, we also began mapping human biology, producing medicines and medical technology that conquered many diseases and alleviated others – extending life spans, enhancing health, and creating new industries along the way.

From this pioneering spirit came a steady stream of innovators: Thomas Edison ... Henry Ford ... the Wright Brothers ... the Mercks, Upjohns, Pfizers and Lillys ... continuing with people like Thomas Watson ... Steve Jobs ... and Bill Gates. Just last year, with 5 percent of the world's population, Americans won nine of 13 Nobel Prizes.

These innovators emerged not by chance but from the characteristics that define our nation:

- We have always welcomed a diverse group of dreamers from across the globe and offered them opportunities to advance by virtue of their ideas and hard work.
- We believe in the free flow of ideas in fact, it's such a bedrock concept that it's enshrined in our Constitution!
- We value education ... and built a public education system that has paid tremendous dividends and was once the envy of the world.
- We have historically had a good business climate and a system that provides incentives for and rewards innovation.
- And we never lost that frontier spirit that looks at obstacles as challenges to be overcome.

(Pause)

Indeed, it is the innovation that sprang from these qualities – above all else – that made the 20th century the American century – marked by a steady growth in jobs ... rising standards of living ... and longer, healthier lives.

This corner of Michigan added an important chapter to this story.

Henry Ford is an apt example of someone who innovated relentlessly in pursuit of a vision.

- His idea to build a reliable vehicle for the masses rather than the expensive, hand-crafted machines then in vogue in his words, "to democratize the car" was a radical concept.
- His moving assembly line was such a breakthrough that, by 1914, Ford was making as many cars as the rest of the auto industry combined but with only one-fifth the workers!
- Also in 1914, Ford began paying a minimum wage of \$5 per day a salary that provided his workers the means sufficient to purchase the cars they were assembling! I count that as innovation, too!
 - As a result, turnover declined, and over the next three

years, profits doubled.

Thanks to this stream of innovations, Ford did much more than revolutionize the car: he turbocharged the U.S. economy ... helped expand the middle class ... and transformed the country. And I guess I count myself as a direct beneficiary – my Dad, along with my uncles, was a Ford dealer in Louisville, Kentucky.

(Pause)

As far-reaching as the impact of the automobile has been on our society, I would argue that the impact in another area of innovation far surpasses it: and I'm talking about advances in medicine.

Medical innovation in the 20th century alone transformed the basic expectations of human life that had prevailed since the dawn of civilization:

- More and more death sentences were lifted ... think of antibiotics for infections, vaccines for conditions such as polio, and more effective treatments for a growing number of cancers. Despite what some perceive as slow progress, life expectancy for cancer patients has increased three years just since 1980.
- Other dread diseases became manageable chronic conditions ... think of diabetes and heart disease. Since 1970, the death rate from heart disease has dropped by nearly 60 percent.
- And countless maladies barely understood or described in Henry Ford's day ... think of severe sepsis, osteoporosis, schizophrenia, and auto-immune disorders ... could be brought to heel by medical interventions. Since 1995, thanks in large part to antiretroviral medicines, deaths from HIV/AIDs have dropped more than 70 percent.

Lilly was a pioneer in several of these pivotal breakthroughs – including insulin, antibiotics, the polio vaccine, and more.

The cumulative impact of the medical innovation of the past century is nothing short of mind-boggling.

When Henry Ford started his car company at the turn of the 20th century, the average American life expectancy was 47. At the turn of the 21st century, it was 78. That's an increase of 66 percent in one century – unprecedented in human history!

If you're older than 50, like me, we've added nearly a decade to lifespans just in our lifetimes! Seen another way – each day of our lives, every 24 hours, we've gained an additional five hours! Although it's still not enough hours to clear my email.

(Pause)

A key reason why we've gained this extra decade is *in-novation*. If fact, an independent study found that just one area of medical innovation – the launches of new medicines – accounted for 40 percent of the increase in life expectancy during the 1980s and 1990s.

In other words – in the study – for every year that life expectancy has increased, five months can be attributed to the availability of new medicines.

If the sole impact of these innovations were additional decades of life and health, we'd be hard-pressed to find their equals.

But the economic payback from these gains is also difficult to overstate. The payback is years of productive work, economic value added, consumer spending, and tax dollars paid – which together outweigh the costs of treatment overwhelmingly ... even if you resist putting a number on the intrinsic value of being alive!

(Pause)

And then there's the impact on the broader economy. Recent data show that

- \bullet the biosciences industry today employs some 1.3 million Americans \dots
- and supports a total of 7½ million jobs across the U.S. economy.
- From 2001 to 2008, jobs in life sciences grew by nearly 16 percent that's about 4½ times the rate for the national private sector.

Michigan is a good example – here, bioscience jobs have grown even faster than the U.S. average.

According to the University of Michigan, the state's bioscience industry employs more than 33,000 people directly ... and about 100,000 people when we include academic and other supporting jobs ... and generates more than \$9 billion in total economic output.

(Pause)

Today, the U.S. is the undisputed leader in medical advances. Our biopharmaceutical sector is the envy of the world. U.S. inventors and companies:

- hold the intellectual property rights to a majority of new medicines;
- they account for more than 80 percent of the world's biotech R&D;
- and they're testing more potential medicines in clinical trials than the rest of the world combined.

This wasn't always the case. As recently as 1990, the pharmaceutical industry spent 50 percent more on research in Europe than in the U.S. By 2001, that was reversed, with the industry spending 40 percent more in the U.S. And we've never looked back.

(Pause)

But – if I'm allowed to edit Satchel Paige – it's time we did look back … because something is definitely gaining on us.

In fact, despite all this progress ... despite all these gains ... the evidence is mounting that we are facing today nothing short of an innovation crisis in America's life-sciences sector:

• To begin with, the science is difficult, incredibly complex ... and staggeringly expensive. Over the past 25 years, the cost to develop one new drug has risen from \$100 million to some \$1.3 billion – in large part because finding the next breakthroughs to treat stubborn diseases like diabetes, cancer and Alzheimer's disease is among the most challenging of human endeavors.

- At the same time, the number of new medicines approved by the FDA over the past five years 92 is lower than in any other five-year period since I started working in the industry in the late 1970s.
- And this comes in the midst of a six-year period when products that comprise some 40 percent of the total U.S. retail pharmaceutical market lose patent protection. This is great news for consumers, who will gain access to more generic drugs medicines, by the way, that exist solely because of our original research. But this translates into about \$100 billion less annual revenue for the industry collectively which means we'll have proportionately less to invest in discovering and developing the next generation of innovative medicines the world desperately needs.
- As a result of these forces, in the large-cap pharma industry, we've seen a wave of defensive consolidations that has left a dwindling number of entities capable of taking an idea ... a discovery ... and turning it into a medicine approved for patients. Large pharmaceutical companies and a select group of large biotech firms are the only entities that can do this work period ... and I believe that a further reduction of this small community is not necessarily a good thing.
- The smaller biotech firms in the U.S. have also seen their cash dry up as investors clearly see the tremendous risks ... with less upside than ever before.

(Pause)

At this moment of unprecedented pressure on our home-grown biopharmaceutical companies, the rest of the world is not standing still. The U.S. is not the only country looking to the life sciences to drive economic growth. The very qualities that brought much of the world's research capacity to our shores could just as easily attract that work to Asia, or elsewhere.

According to the Kauffman Foundation, in 2006, more than 5 percent of all global pharmaceutical patent applications named one inventor or more located in India ... and more than 8 percent named one or more located in China. These numbers may seem small, but they represent a fourfold increase from 1995.

We've also been hearing for years how countries like India and China are producing more scientists and engineers than we are. Those potential innovators see improving prospects in their own countries and more restrictive U.S. immigration policies.

So now, instead of coming here, or staying here and contributing to our economy, many of the world's best and brightest are – as a *Washington Post* headline put it – "Taking their Brains and Going Home."

(Pause)

While I've been focusing on the industry I know best ... the threat to America's leadership in innovation should concern every one of us in this room.

A study published last year by the Information Technology and Innovation Foundation ranked the U.S. sixth among the top 40 industrialized nations in what they call

innovative competitiveness. Not number 1, but not a disaster by any means.

However, the same study also measured what they call "the rate of change in innovation capacity" over the past decade. These are things countries are doing to make themselves more conducive to innovation in the future. They looked at 16 different metrics – things like higher education ... public and private investment in R&D ... corporate tax rates, and the like. On this list, the U.S. ranked dead last – dead last – dead last – dead out of 40!

So we can see things as they are and feel complacent ... or we can dig deeper and recognize disturbing signals that we're at serious risk of falling behind.

(Pause)

What will it take to preserve our lead in innovation – including medical innovation?

Let me be clear that when it comes to sustaining innovation, the burden remains on research-based companies like Lilly – as it should. Businesses like ours that live or die by health care innovation in the U.S. ask only that we be allowed to continue doing just that: proving the value of what we've developed ... and succeeding or failing in the marketplace.

The one thing that industry has a right to ask of public policy ... in my view ... is to help preserve the environment in which innovation is even possible – that supportive business climate I referred to earlier.

The pursuit of innovation in any field is a very difficult, very high-risk venture. If innovation is to take root and grow, it requires a combination of elements I like to describe as an "ecosystem" – and I believe this is a good analogy.

The first element of this ecosystem is an atmosphere in which innovation can thrive ... a society that understands and appreciates scientific inquiry ... and free markets where innovators can expect to be rewarded for the risks they take and the value they create.

The second element ... the nutrients for innovation ... come in the form of monetary investments. For investors to take the risks associated with innovation, they must have a fair shot at earning a return if the work is indeed successful. That requires solid protection of intellectual property ... and a fair, rigorous, and transparent system of regulation.

The third and most important element ... the seeds of innovation ... equate to talented people and their ideas. Ultimately, innovation grows from the human mind. We need to remind ourselves that human beings, with their talent and energy, their creativity and insights, are a priceless resource – but a resource that is woefully underdeveloped in this country, even as we congratulate ourselves for maintaining – still – the world's largest knowledge economy.

(Long Pause)

In the remainder of my speech, I want to briefly call attention to four policies necessary to allow innovation ... especially human talent and ideas ... to take root and grow:

• First, broad improvement in science and math education

in our grade schools and high schools;

- Second, immigration laws that allow and encourage top scientists to choose to work in the United States;
- Third, a well-funded basic research infrastructure within academic and government labs; and
- Fourth, tax policy that fosters rather than undermines innovation.

(Pause)

When it comes to science and math education, I don't need to convince this audience that the U.S. is falling short ... especially at the high school level.

- In international comparisons, American 15-year-olds perform poorly in science and math literacy. When compared with students in 57 countries around the world, U.S. 15-year-olds rank 29th in science literacy and 35th in math literacy.
- And last year, the ACT admissions test reported that only about a quarter of 2009 high school graduates taking the test were ready for college-level biology.

Folks, these kids are the future scientists we'll need to build the next generation cars and power plants and semiconductors ... and to discover new treatments and cures for our toughest medical problems. But, not surprisingly, the number of U.S. students pursuing bachelor's degrees in science, technology, engineering and math – the so-called "STEM" fields – is far below what will be needed to meet future demand.

Broad understanding of math and science is essential, first of all, so that young people across our society have an opportunity to participate in the high-tech economy of the future. Further, as the technology sector grows ... the Baby Boom generation retires ... and shortages emerge in particular fields ... we will need a large cohort with basic scientific skills to prepare for these jobs.

Meeting these needs will require continued significant attention to improving K-12 science and math education across our country, and I believe that both the public and private sectors must be involved.

Let me cite just one key imperative: Better preparation and support for teachers in STEM subjects ... teachers who know their stuff and can get students excited about math and science. When I think about my own decision to pursue a career as a chemist, I go immediately to two devoted high school teachers who inspired me and put me on the right path.

Ultimately, what we need is not an intensive program to produce an elite cadre of brilliant scientists, but a common effort as a society to develop whole new generations of Americans with knowledge and skills in math and science ... a large pool from which great scientists and breakthrough ideas will emerge.

(Pause)

Second, we must return to immigration policy that allows and encourages top scientists to choose to work in the U.S.

Breakthroughs in any field require superlative talent. In pharmaceutical research, only one molecule in 10,000 be-

comes an approved medicine ... so we need the kind of scientist who might come up with the pivotal insight that makes a difference. Today, many of the top candidates don't start out as U.S. citizens or even permanent residents. This includes candidates emerging from the best U.S. graduate schools.

To stay and work in this country, skilled foreign nationals typically need H1B visas, but the number of those visas has been subject to impossibly low limits in federal law.

Since Congress last raised the annual cap in 1990, U.S. GDP has grown by nearly two-thirds, and the demand for skilled workers has risen commensurately. At Lilly – despite lots of work on our part, and considerable expense – we've typically had success with only about 75 percent of our H1B visa applications, because once the low limit has been exceeded, we're subject to a lottery like every other potential employer.

Today, it takes an average of five years for the Lilly employees we sponsor for residency status to obtain a green card.

This uncertainty and frustration is driving away prospective candidates before we ever see them. With growing opportunities in their own countries ... the last thing we should be doing is pushing them away.

Whether or not Congress takes up comprehensive immigration reform, we must fix the policies that are driving away talented people who want to live here and contribute. This does not require drastic changes ... just a sensible increase in visas for these highly skilled immigrants and a shorter, simpler process to get a green card.

To those who argue that these immigrants are taking jobs from Americans, I say baloney! The fact is, they're contributing to strong businesses that help create jobs right here in the U.S. According to the *Wall Street Journal*, between 1990 and 2007, 25 percent of U.S. companies started with venture capital had an immigrant founder.

And it surely beats the alternative: talented people trained in the U.S. returning to their native country or going elsewhere to start or help a foreign firm to compete against us. You want a job-killer? *That's* a job killer.

(Pause)

Third, we need strong, sustained government funding of basic research.

Academic and government research has historically operated synergistically with the private sector, often supplying the raw material and insights ... which industry works to translate, develop and commercialize. Yet real federal funding for research actually declined over the past five years – and the decline hit basic research in government and academic labs.

To counter that trend, the stimulus bill included substantial additional funding for the National Institutes of Health, the National Science Foundation, and other agencies involved in health research. And President Obama has outlined the goal to increase R&D investment to 3 percent of the Federal budget.

I believe that investment will be most effective if a com-

mensurate share goes to basic research. And it can't be just one-and-done. Because medical research is such a long-term enterprise, the funding must be consistent; predictable; and sustained.

What's required, again, is not some new "Manhattan Project" but rather a long-term commitment. Such a commitment is necessary to attract more outstanding scientists to basic research and keep them engaged in productive work throughout their careers, whether in academia, government laboratories, or the private sector.

(Pause)

Fourth and finally, we need a tax structure that provides incentives – rather than undermines – innovation.

Though the U.S. was one of the first countries to offer an R&D tax credit, we have not kept pace with other nations. Other countries – and some U.S. states – including Michigan – are making public investments to attract private capital and using tax policies to encourage local investment in R&D and related job growth.

- We need to make the federal R&D tax credit permanent and raise it to levels that make it globally competitive ... including allowing partial refunds for emerging companies without income and providing an incentive to create public-private partnerships.
- We also need a business tax system that levels the playing field for America's worldwide companies.

Debate started yesterday in the Senate on tax legislation already passed by the House that could prove pivotal for America's innovative companies – H.R. 4213.

We strongly support including the R&D tax credit extension in this legislation. However, we strongly oppose the international tax revenue raisers in the bill – which will hurt the U.S. economy and deplete U.S. jobs. These are long-standing provisions in the tax code – not loopholes, as some are calling them – and should be addressed only in the context of comprehensive tax reform.

These international tax revenue raisers further exacerbate a corporate tax system that is out of step with the rest of the world. Our corporate tax rate is too high and we should not tax the foreign earnings of U.S. global companies. We need a corporate tax system like the rest of the world – one that encourages, rather than discourages, investment in the United States.

(Long Pause)

I've been talking today about what America's genius for innovation has meant to our citizens – more jobs, higher standards of living, and longer, healthier lives.

As it was with the first cars or the first insulin ... it's impossible to predict the full range of benefits future generations could enjoy from today's innovation.

But if we take the steps I've been suggesting ... and unleash America's true genius for innovation ... what might seem unimaginable today will be commonplace tomorrow:

• A new generation of cars whose performance, safety, and energy efficiency far surpasses anything on the roads

today ...

- a virtually inexhaustible supply of renewable, clean energy ...
- ever-greater computing power put to uses that today would seem like science fiction.

And in medicine:

- treatments that transform cancer into a chronic disease, with survival times measured in decades rather than months
- effective treatments for malaria, TB, and other diseases affecting tens of millions in the developing world ...
- breakthroughs that will save millions from the devastation of Alzheimer's disease ...
 - cardiovascular repair and prevention of heart disease ...
 - replacement organs ...
- and ultimately additional decades for people to enjoy precious life and enhanced vitality not just additional years, but additional *healthy* years.

And, along with the profound benefits in and of themselves, we'll see exciting, new opportunities ... a rising standard of living ... and a reinvigorated American economy.

(Pause)

All the things I've just listed are not only possible – they're on the drawing board somewhere today. But success is not guaranteed.

You will still hear some people say we have all the innovation we need. Or that, in this difficult economic climate, we just can't afford it.

I hope when you hear these arguments, you'll remember what I've talked about today and conclude – as we at Lilly have – that innovation is not the problem. *Innovation is the solution* – the essential key to ensuring that, when people look back at the 21st century, they will say that it truly was the *second* American century.

(Pause)

Thank you very much. ◆

BEST-WRITTEN SPEECH BY ORGANIZATION—TELECOMMUNICATIONS

Connecting the Next Billion: The New Frontier of Upward Mobility

Writer, Brian Akre; Speaker, Olli-Pekka Kallasvuo, CEO, Nokia (with Jan Chipchase of Nokia Design)

Delivered at the International Consumer Electronics Show, Las Vegas, Nev., Jan. 8, 2010

(Introduction by Karen Chupka, Senior Vice President of Conferences and Events, CEA)

Thank you, Karen. And good morning, everybody!

Every time I see that video, it reminds me why I love this business. Because when you get right down to it, what we do, every day, is enable billions of conversations, billions of connections.

Today people use our devices to connect by voice, by text message, by chat, by email, photo, video and social networks. So the ways we're "Connecting People" keep expanding, but the goal remains the same: to help people everywhere make the most of every moment, of every opportunity.

So, here we are again in Las Vegas – a place where it's easy to find conversations taking place 24 hours a day, including between people and their slot machines.

Vegas, of course, is dedicated to the pursuit of fun and games. It was designed to be an unreal world – a city of escape.

What I want to do this morning is take you to a very different, very real world.

It's the world where most of Earth's inhabitants live. And most of it is about as far from the glitz of the Strip as you can imagine. It's a world in which millions of people face a daily struggle just to survive.

But it's also a world of increasing opportunity and upward mobility. where wealth is being created at an incredible rate, where innovation is thriving, where business opportunities abound, and where the future is brighter than it has ever been.

Mobile communications have played a big role in bringing hope and higher living standards to billions of people. This trend promises to accelerate in the coming decade, as the capabilities of smartphones spread across the globe.

As this new frontier of upward mobility expands, it will open up countless opportunities – not just for the mobile industry, but for a wide range of businesses, content providers, software developers and entrepreneurs.

Before we get to that, I'd like to talk about how we at Nokia look at this world, how we try to understand it, and about the role the simple cell phone has played in opening this new frontier.

When we started out in this business, when Nokia first began using the slogan "Connecting People," it was just about connecting by voice with portable phones.

Back then, just over 20 years ago, "portable" looked like this. This is our classic Mobira Cityman from 1987 – Nokia's first handheld wireless phone. It marked the start of what turned out to be the fastest-spreading technology in history.

Today, our industry estimates there are about 4.6 billion mobile subscriptions among the planet's 6.8 billion people.

We're nearing the day when we'll be able to declare the entire world connected.

Our industry's brief history has been a truly remarkable story. It's a story of how innovation and competition continue to improve technology and make it more affordable and more reliable, bringing its many advantages to those who stand to benefit the most.

Of course, as much as we marveled at the Mobira back in 1987, it was a very basic phone.

Today, this is what you and I would consider a very basic phone: the Nokia 1616. By our standards in the West, it's nothing to get worked up about.

But compared to the Mobira? Well, it's sort of like comparing Ford's new Mustang G-T to a Model T!

For developing markets, it's a high-performing model designed specifically to meet their very demanding needs. Of course, this phone makes calls, sends text messages, has an appointment calendar and a color screen. But it also has multiple address books, because in many villages and families, a single phone is shared among several people.

It includes a built-in flashlight, because many of the people who buy it live in places where electricity is unavailable, scarce or unreliable. It has a dust-resistant keypad, making it durable in harsh environments. It has an FM radio, a speaking alarm clock, and an extended-life battery.

Today, farmers in India and Indonesia can use this phone to get the latest information on crops, prices and weather with an application called Nokia Life Tools.

You can use it to learn a second language, or check your horoscope, or get the latest news on your favorite Bollywood stars. And you can load prepaid minutes on this phone as a kind of currency, to send to far-off relatives in need of cash.

The Mobira? It made calls, when it could pick up a signal, at a cost of more than a dollar a minute. That's if you could afford its \$6,000 price tag.

Nokia's global scale – combined with our manufacturing and distribution efficiencies – have allowed us to relentlessly drive down the cost of our entry phones to make them more and more affordable to more and more people.

Today, you can buy this phone in India, Africa and China for the equivalent of about \$32. This is what some of us might spend in a week drinking venti lattes at Starbucks.

It also reflects a more than two-thirds drop in the price of our most affordable phone – in just the past five years.

To a tenant farmer in India or a merchant in Kenya, \$32 is substantial – for some it can be more than a month's income. Yet that farmer or merchant will save and pool his money with his friends or neighbors to buy one of these.

Which humbles me – the idea that people who materially have so little, decide to invest their hard-earned money in our products. When you think about it, these are some of the most critical, most discerning consumers on the planet – by necessity: When you have so little money to spend, you tend to be very careful how you spend it.

Perhaps the nearest comparison is when you or I bought our first car. We didn't have much money, but we worked hard, saved up and paid for the car in installments. Owning a car made your life easier, it gave you more freedom, and a certain status.

That's really what a basic mobile phone represents to many people in the world today. But it's even more than that.

The mobile phone is an investment in their livelihood, in a better life. It can increase the owner's income substantially. It opens up the possibility for new kinds of businesses. It allows farmers, fishermen and merchants to avoid middlemen and earn more money for their labor.

Over the past five years, Nokia has sold more than 750 million entry-level phones, similar to this one, mostly in the world's high-growth economies. They have, in fact, become a necessity for upward mobility.

Of course, the rapid spread of this technology in the developing world has occurred in a fundamentally different way, compared with the West.

Modern western telecommunications began with the telegraph and then telephone lines strung across the continent. Access to the Web spread first though PCs over phone lines, then via broadband cable, and now wirelessly.

But across the rest of the world, where there is less of this legacy infrastructure, many people are going wireless first.

Think about it: There's an entire generation of people growing up today who are connected to the rest of the world solely though their mobile device.

(Sound of dial tone)

Many of them have never even heard that sound – the sound of a dial tone – and they probably never will!

Over time, the "public call office" popular in the developing markets is doomed to go the way of the public phone booth here in the West. Likewise, for the majority of the world's people, their first and only access to the Internet will be through a mobile device – not a PC.

And this access is spreading very, very fast. In China, every month more than 7 million people gain access to the Internet for the first time, and mostly on mobile devices. And that's an important point.

While entry phones play a critical role in these markets, the high-growth economies of China and India in particular are seeing rapid growth in sales of smartphones as well.

So how has Nokia succeeded in these economies?

First, we approach all our markets from the point of view that you can do good business, and "do good," at the same time. Our focus on "Connecting People" is inherently about doing good, about bringing people together – it gives us a strong sense of purpose.

We also strive as a company to be a responsible global citizen. Which means giving back, being a leader in promoting sustainability, and truly respecting different cultures.

This is part of what the Nokia brand stands for – and I believe it's one reason why our brand is consistently rated as among the most valuable and trusted in the world.

Nokia is perhaps the most global company on the planet. It was obvious long ago, being based in a Nordic country with about the same population as Minnesota, that we had to look outside our small home market to grow. Which meant we needed to really understand every market we entered.

Business people often tend to lump all of the growing countries outside the West into one category. They call them "developing countries," "emerging countries" or "emerging markets." In most cases today, those labels are a bit out of date. I mean, is there any doubt the economies of China and India have emerged?

Each of these markets is uniquely different and complex. A one-size-fits-all approach just doesn't work.

For years, Nokia has had teams working around the world to develop a deep understanding of people, cultures and markets. We take this understanding very seriously – we try to never stop learning.

Now, I'd now like to bring on stage a guy whose job is to visit those places and essentially serve as our cultural anthropologist. Jan Chipchase has worked for Nokia for nine years, traveling to the far corners of the Earth to help us understand how people live and how mobile phones might help them live better.

I like to think of him as "Nokia's Indiana Jones," and he may also be the only Nokia employee with more frequent flyer miles than me!

Please welcome, Jan Chipchase...

(Ian Chipchase, Nokia Design)

Thank you, OPK. And good morning everyone!

I work out of one of Nokia's five global design studios. My job is to identify new opportunities for the company, and help our teams understand both the similarities and differences between cultures.

The timeframe that I'm interested in ranges from now to about 15 years ahead of the market. So if you think of this dot as now, I spend my time exploring this fuzzy, unknown space out here, where there are any number of possible outcomes

Some people describe this space as being a cone of uncertainty. But like many of you, I think of it more as a cone of opportunity – a place where the future is constantly being invented and reinvented.

And whilst this is the headspace in which I operate, my physical office looks like this.

Most people expect to find cutting-edge technology use in cities like Tokyo or San Francisco. We do run research in these places, but we've increasingly turned to places like Brazil, Ghana and China for inspiration on how the future will turn out.

These nations have a growing middle class, but also support large populations living near the poverty line. They live in communities that often don't appear on a map, and have limited access to many of the resources you and I take for granted.

Every company talks about putting customers at the center of what they do. I'd like to give you an idea what this means for Nokia.

Each of these dots represents months of teamwork to prepare and run field studies, from conducting background desk research to hiring local experts and guides.

For example, we might head to Kampala to understand the very basic human motivations behind why people share, or look at more practical issues, such as how people who can't read and write are using our products in India.

The driving principle behind the research is that we learn the most by being in the contexts in which people do the things they do. So, if we are interested in commuting habits in India, we need to be able to have a team on the ground that is capable of gathering data through careful observations, interviews the collection of photos and videos.

The logistical issues are interesting enough. But the most challenging aspect of the work really is the moral questions that it raises: How do you conduct the research in such a way that shows sufficient respect to the individuals and the communities?

And, fundamentally, as representatives of a large global company, do we even have the right to be there?

This is not a question we've taken lightly, and over the years we've developed and refined a suite of methods to do this with the sensitivity that it requires.

Let me give you some examples of what we've looking for and the kinds of questions that it raises.

This room is a home for a family of four, living in Dharavi, a neighborhood in Mumbai, India.

A simple question: How does the mother save for her children's schooling when she doesn't have a secure place to store her money, and there's always someone looking for a handout?

The UN estimates there are around 800 million illiterate people world wide, many of whom are already our customers. Bearing in mind all phones have textual interfaces, how do people who can't read and write navigate a world of words and numbers? And how does this change the kinds of designs targeting these customers?

Increasingly we're finding innovation at the edges of "the grid."

Simple question: How do you keep your devices charged if you don't have direct access to the electrical grid? This is how they do it in rural Uganda ... and here's a charging station in Kampala.

These kinds of grassroots solutions to local problems are becoming increasingly sophisticated. Last year in Ghana we came across this hardware hack that allows two SIM cards to be placed into one SIM card slot.

You put this in your phone and it allows you to switch dynamically between two operators.

Many business models are dependent on containing customers within a walled garden. What happens at the grassroots level when they find ways to break out?

This gentleman and his laptop are from a market in Delhi, India. You hand him your memory card and for a small fee he'll upload whatever content or applications you want.

A bunch of companies, including Nokia, have launched app stores with great fanfare. As far as I'm concerned, we're playing catch-up with these "corner shop" app stores.

What does it take to compete with this? What kind of service is more convenient for these consumers, and can create a win-win for operators and the content providers?

A couple of years ago I was traveling through Ulan Bataar, Mongolia. It was in the middle of winter and was bitterly cold, and these guys kindly invited me into their monastery. As soon as we're inside, they both fish out their mobile phones. The guy on the right has taken my phone, has switched on Bluetooth and is data-mining it for interesting content.

What surprised me what not just the level of technical literacy but that he actually owned a recently released phone that was considered a high-fashion statement in London or Milan.

It's a very simple lesson, but worth articulating: Once objects become small enough to fit in a pocket, they rapidly find their way to the four corners of the globe.

Any manufacturer or service provider who wants to compete in this space is competing with the best in the world – because that is now the benchmark for local consumers.

What I like about these examples is that they challenge our assumptions about what we think we know about our customers, and what it is we are designing. They open our eyes to the vibrancy, ingenuity and innovation that exist in these markets, they show us the potential of what is possible.

You might imagine that after all this travel I'd like to put my feet up at home. But to unwind, I like to go to the places that don't fit easily with my day job.

So, in the past year, I headed up to the remote mountainous regions in the west of China to better understand the use of communication tools there. I've just returned from Afghanistan, where I've been scouting new potential projects.

My hunch is that Afghanistan's unique culture, this moment in its history and the very limited infrastructure make it ideal for exploring some of the new mobile services that our researchers are studying. People around the world have shown us that adversity and scarcity lead to real innovation.

People in some of the world's most remote and poorest countries have inspired us and amazed us. They know what they need and they find ways to make it happen.

To be prepared for our future, we all need to listen, think and not jump to conclusions about our customers.

Do that and you have a good chance of making your business succeed and, even more importantly, improving people's lives in ways both large and small.

Thank you.

(Mr. Kallasvuo)

Thank you, Jan. Not only are you a cultural anthropologist, you're also an amazing photographer.

We at Nokia have known for years about the difference mobile communications can make in the lives of people around the world. But we had not really talked about it much.

You see, even though we are a truly global company, our roots remain in Finland. And we Finns are by nature modest – perhaps too modest for our own good!

So in an effort to get the word out more widely, we invited Lonely Planet – the largest travel publisher in the world – to investigate the impact of mobile communications for themselves.

Lonely Planet and its team of writers have a great reputation for giving independent, impartial travel advice. We gave them complete editorial freedom to draw their own conclusions.

What resulted was the "Progress Project," a series of short videos that show how people's lives are being improved though this technology. Let's take a look at scenes from two of the videos, which show how "Nokia Life Tools" and an application called "TEJ" are making a difference in India.

(Video)

You can see how this technology is truly improving people's lives. And here to tell us more from her personal perspective, I'm pleased to introduce the host of the Progress videos, welcome travel journalist Frances Linzee Gordon ...

(Frances Linzee Gordon, Lonely Planet)

Thank you, Olli-Pekka. Good morning, everyone.

Have you ever noticed if you ask anyone about their best vacation, chances are they'll tell you all about the people they met, not necessarily the places they've been?

As a travel journalist, I'm no different. My best memories all involve people.

I believe passionately that good travel journalism is not about the museums, monuments or tourist attractions. Rather, it's about the people.

The minute you connect with people, you begin to truly step into that country and culture – and only then can you begin to write good guidebooks or make good travel films.

This is what ultimately attracted me to the Progress Project – it was all about people.

However, when Nokia and Lonely Planet first approached me to do this project, I have to say, I was less than enthusiastic.

I've worked as a Lonely Planet journalist, photographer, presenter and speaker for nearly 15 years. Lonely Planet prides itself on giving impartial, objective and independent advice. What I love about working for the company is the complete freedom it gives its writers. They leave it up to us to make up our own minds about things.

So we made it clear to Nokia that we were happy to collaborate on this project, but we ultimately would make up our own minds about it.

And I know this probably is the worst place to admit this, but I am not a gadget girl. I'm certainly not a tech geek! Yet, here was a project that basically involved interviewing people around the world about how they use their mobile phones.

But one of the things I love about travel is how it broadens your perspective, and how it can shatter your misconceptions – something I'm sure many of you have discovered for yourselves.

My first misconception about this project was that Progress was merely about technology. In fact, it was really all about people – as you've just seen in the videos. How people use mobile devices to improve their health, wealth, business and education.

My second misconception? Before this project, like a lot of people, I didn't appreciate the potential for a global company to be a force for good. In Nokia's case, it wasn't just their tremendous global reach. It was also their commitment to innovation and development.

I was astonished to read in a recent BBC article that Nokia has spent more than \$40 billion in the last two decades on research and development alone!

My third misconception, and I'm sure none of you share this one, was that a mobile phones was just a mobile phone. That's no longer true, of course. As Olli-Pekka noted, even the most basic ones today are capable of performing highly complex tasks.

They even have the potential to save lives, as they have done in the fight against disease in Brazil, where we shot a video on the Nokia Data Gathering program.

This program uses mobile devices to map the spread of diseases in real time, pinpointing areas where outbreaks are occurring and help is most needed. In this way, health authorities can prevent the outbreak of epidemics that can kill hundreds or thousands of people every year.

In the past, their efforts were hampered by the geography, lack of funding and manpower. Using Nokia Data Gathering, alerts can be sent out and information from remote areas can be transmitted back to the authorities instantly.

An epidemiologist I spoke to said the incidence of dengue fever had dropped in the last year by 93 percent, thanks in part to Nokia Data Gathering.

So mobile phones can improve the well-being not just of individuals, but the collective well-being of entire regions, countries and continents. We're talking here about global implications.

What utterly fascinates me about this project is the sociological phenomenon it is generating. It is no exaggeration to say: Something of a social revolution is unfolding around us.

Mobile phone technology is allowing people to overcome environmental difficulties and obstacles, to rise above their social status and conditions, and to empower themselves by themselves.

In Nokia Tej, the local businessmen can cut through India's legendary bureaucracy and paper trail using an application tailored especially to them. Saving hours in a day, they are able to concentrate on what they're good at: Simply getting on with business.

The farmers using Nokia Life Tools can leap-frog the politicians to bring about their own development of their own land. One of the last people you saw in the video was Datatari, the delightful farmer who owned just four hectares of onion fields in western India.

When we said goodbye, I teased him that when I returned he would have made his fortune. He laughed, but you could see in his eyes, he believed he could.

And you know what? With his tremendous will and his tools he had in hand, we all believed he could, too.

Interestingly, these are the very two things that sociologists say are required for human progress: The will, and the means. There's no question in my mind of the will of the wonderful people I met while filming the Progress Project.

Just imagine what good can be done with the billions that Nokia spends on research and development plus the combined R&D investment of all the companies here at CES!

With the will and the means, I suggest: It's up to us to get it done.

Thank you.

(Mr. Kallasvuo)

Thank you, Frances.

Not long ago, people who spoke about mobile communications at conferences like this predicted mobile devices would soon bridge the digital gap and bring the Internet to emerging markets. I was one of them!

In reality, it hasn't happened as fast as some of us expected – largely because of the lack of infrastructure.

One way Nokia is getting around this is by adapting services to the local infrastructure, and trying to reduce any barriers to customers. In reality, the lack of 3G technology in many of these parts of the world is not a barrier to offering modern mobile services.

For example, we deliver services and information from the Internet via S-M-S, the common technology for text messaging.

SMS offers a way to provide mobile apps to basic cell phones. It also is an inexpensive solution in areas without data coverage, or where data plans are too costly.

A good example of using SMS technology is Nokia Life Tools. Another is a series of services being co-developed by the Nokia Research Center in Palo Alto and our local research team in Bangalore, India.

They are designed to be culturally in tune with the way people tend to navigate in India's crowded cities.

Most basic phones in that part of the world don't come equipped with GPS navigation capability. So rather than using GPS to determine coordinates on a digital map, we use SMS to map a city based on the location of cell towers and neighborhoods.

While the result is not always as precise as GPS, it's solid enough to provide some surprisingly useful services. One such service is called "M-Bazaar."

It's like a mobile Craigslist or e-Bay, but targeted at developing markets, where classified ads don't really exist.

Sellers post items or services for sale, which are linked to their location. Buyers subscribe to the service for the type of product or service they want. The program finds matches and delivers them by text message.

For the first time, workers in the services trades can reach out digitally to a larger audience of customers looking for what they sell, rather than just relying on word of mouth to advertise their services.

Such simple technologies can make a real difference to people's lives. But it is not always about keeping in touch, or finding potential customers.

We all know cell phones can be used to buy goods and services. But in areas where banks and ATM's don't exist or are few and far between, imagine the benefits of using your phone to pay bills and transfer money.

We all take banks for granted. But here is a statistic that shocked me the first time I heard it: While there are nearly 4.6 billion mobile phone subscriptions in the world today, there are only about 1.6 billion bank accounts. Which means much of the world still has very limited access to basic financial services. So there's tremendous potential in mobile banking, for literally billions of people.

It means people don't have to travel miles or wait for hours in line at the nearest bank or post office. It means they can securely manage their money anywhere, and get paid quickly.

Last year, we introduced "Nokia Money," a service to deliver basic mobile financial services on a global scale. We're bringing together the carriers, regulators, merchants, bankers, and other device manufacturers to strengthen the necessary infrastructure.

We believe it will be more successful if it is not tied to a single bank, a single carrier or a single country. By working together with pioneering companies like California's Obopay, Nokia Money will launch commercially during the first half of this year.

Another area where we are growing Nokia's services ecosystem is e-mail. Now I know email is not something that generates much excitement today.

But here's another statistic which might surprise you: nearly 75 percent of the world's population still has no access to e-mail. 75 percent!

Most of us in the developed world approach email today as something of a necessary evil – especially when our inbox is stuffed, or our mother is sending us another video of a dancing kitten from the web.

But imagine your life without it. We now accept it as a basic communications tool, no less vital to our daily lives than our phone.

Now imagine someone in China or Africa who is gaining access to email for the first time, how it will improve their efficiency and ability to connect with others. What's making this scenario increasingly possible? People no longer need a PC to sign up and use email.

Using our Ovi Mail service, people around the world are

now able to sign up for a free email account in a couple of minutes when they set up their new Nokia phone.

In just a year, we signed up more than 5 million Ovi Mail accounts, exceeding the first-year user total for Gmail, Yahoo Mail and Hotmail. The top countries for Ovi mail are China, India, Vietnam, Indonesia and Chile.

As I said, there are huge opportunities to accelerate development in the growth markets. This is particularly true for software developers. The developer community is focused today on smartphones and apps here in the West – and for good reason.

But in addition, there are big long-term opportunities in the developing markets as well, given their sheer size. As our efforts to "democratize the smartphone" begin to pay off – that is, as smartphone features are driven into the lower price segments – the potential is staggering.

Which means demand for applications is growing as well. But this should not blind us to the huge, largely untapped market for apps and services for the less affluent in these economies. In looking at these markets, you have to think in terms of multiples that we're not used to thinking of in the West.

While a service like Nokia Life Tools may cost the customer only a dollar a month, when you multiply that dollar by several hundred million customers, you begin to appreciate the potential.

Nokia has been working hard to build up our legion of developers globally. In China alone, we already have 300,000 developers working with Nokia on applications and services. They understand the potential of the Nokia ecosystem.

For developers here in North America, Nokia and the Symbian operating system are a prime "export channel" that gives them potential access to our 1.2 billion customers around the world.

A developer today in Palo Alto can come up with an idea, push it out through Nokia's Ovi Store, and in an hour people around the world can be downloading it.

I mentioned earlier that Nokia operates from the philosophy that you can do good business and "do good" at the same time. And that particularly applies to what we are doing in the world's developing economies.

For the past two years, Nokia has run a competition aimed at developers around the world. It's called "Calling All Innovators," and its aim is to inspire the imagination of developers to make a difference through mobile communications. The theme for this year's competition is "Generating Apps That Make a Difference."

We want to encourage our developer community to create locally relevant apps and services that not only expand how mobile devices can be used – but also improve people's lives.

This year we're happy to have a new partner for "Calling All Innovators" – Sesame Street. Sesame Street already brings its great brand of quality educational programming

to 125 countries worldwide, including many in the markets we've been discussing here today.

We're convinced that "Calling All Innovators" is a great way for us to help Sesame Street create educational apps for developing markets, and reach children around the world who are most in need.

I hope we've sparked your interest in the developing economies and maybe inspired you to think how your expertise or business could contribute. Because I firmly believe that we have only scratched the surface of the potential to do good business and "do good" in these parts of the world.

So to conclude this morning, I want to make a significant announcement. I want to put our money where our mouth is.

I'm pleased to announce – as part of the "Calling All Innovators" competition – the first "Nokia Growth Economy Venture Challenge."

We're challenging developers and innovators around the world to take action. We want you to come up with new and innovative ways to help people and promote upward mobility around the world.

To encourage that, the winner will receive a \$1 million investment from Nokia. And I stress the word "investment."

It's an investment aimed at creating a strong, vibrant business that will also improve people's lives.

We've seen what the tech community can do when it

focuses on problems that are also opportunities. We want to channel that energy toward improving lives in the developing world.

The idea can involve a hardware, software or service opportunity, but it must clearly warrant a \$1 million investment. And it must be aimed at areas of the world where the average daily income is less than \$5 a day.

Details of the Growth Economy Venture Challenge are available on this website. We plan to announce the winner in June.

I can't tell you how excited I am to be able to do this and to see what amazing ideas result from this challenge. Because this clearly is one of those opportunities to do good business, and "do good."

Ladies and gentlemen, in the real world, far away from here, these little devices already have done more to improve lives at the base of society's pyramid than perhaps any technology in history.

Billions of conversations, billions of connections, every single day. We're connecting people on a scale unimaginable back when we started out in this business.

Our entire industry should be incredibly proud of the role it has played in opening up this new frontier of upward mobility. It's a great story, a story of how technology has improved, and continues to improve people's lives.

The exciting thing is, we've only just begun.

Thank you. •

BEST-WRITTEN SPEECH ON TOPIC—DIVERSITY

The Sound of Leadership: What Women Know and Businesses Need to Hear

Writer, Elaine Bennett; Speaker, Barry Salzberg, CEO, Deloitte Delivered at the Conference Board's Women's Leadership Conference, New York City, N.Y., April 28, 2010

Good morning. I'm honored that The Conference Board has invited me to speak with you today.

For the last day and a half, you've heard from some of the most successful women in business. You've heard how these remarkable women handle a range of talent management and other leadership issues. You've heard a lot of what it takes to thrive as a woman in the workplace. You've heard the "sound of leadership" from many women's voices.

From my reading of the conference agenda, it appears I am the only man you will hear from. So I am honored to be here and provide my perspective or perhaps you might say "the flip side of the coin" – what is it like to *empower* strong, successful women in the workplace? If our goal is to attract, retain, and grow women leaders – what works? And what can we do better?

Let's start out with a case study.

A young woman – we'll call her "Maria" – begins an entry-level job with high hopes of success. But she soon discovers it's a much more restrictive environment than she had imagined.

It seems like she's at work 24/7. Her supervisors expect her to perform the tasks assigned to her the same way every time, with no leeway to add her own personality. All of her work has to be done at the workplace, with no exceptions made for any other pursuits in which she would like to engage. For instance, she could never leave work early to go to her child's softball game.

Fortunately for Maria, she doesn't have any children... yet. But she *does* have something she loves to do – and her work schedule definitely interferes with it. So every once in

a while, Maria just ducks out of the office, unannounced. Where does she go? She grabs her guitar and runs off into a lush, mountain pasture. Then, twirling her skirt joyfully, she bursts into song.

In case you haven't recognized her by now, Maria is the protagonist of the great musical *The Sound of Music*. In the movie, she's played by Julie Andrews and, while it's practically un-American to be critical of any character played by Julie Andrews, let's consider Maria from her managers' point of view.

Maria was a postulant at the convent – kind of a nun-intern. It's a job she really wanted – at least that's what she told her interviewers. But now it's clear that she either doesn't *understand* or doesn't *respect* the rules that have governed work at the convent for as long as anyone can remember.

She won't stick to the duties or the working hours she's assigned. Compliance is a real challenge for her. Eventually, her coworkers get so frustrated that they complain to management – singing, "How do you solve a problem like Maria?"

But Maria wasn't a "problem." She was a *leader*, *even a pioneer*.

The *problem* was that her employer – the convent – wasn't set up to recognize, nurture, and capitalize on those leadership skills. So they encountered a situation that many businesses deal with today: generational differences in work styles led to the loss of a promising recruit.

When Maria was given a different opportunity – a more self-directed job in the secular world – she thrived. She rapidly changed the culture of her new organization and dramatically improved the morale of her new colleagues.

And, if that weren't enough, she employed a combination of quick thinking and bold action to save her entire team from certain death at the hands of the Nazis. I don't know about you, but that's the kind of leader I want in *my* organization.

Maria's story is a true story. Okay, maybe not the part about the singing nuns – but Maria von Trapp was a real woman. She really did set out to become a nun and she left the convent to become a governess.

There are "Marias" in companies everywhere in the world. Women whose talents have not been properly recognized or deployed. Whose different modes of problemsolving have been overlooked instead of celebrated. Women whose out-of-the-box thinking has not been received well and perhaps been stuffed right back in the box, lest it CHANGE the way things have always been done.

For more than half my career, Deloitte has been working to ensure that fewer and fewer Marias slip through the cracks. It's even more important today because changing demographics and the increasing diversity in the marketplace make it an imperative to retain, develop and advance women.

We have long recognized that having diversity within Deloitte – and that definitely includes strong, women leaders – allows us to tackle our clients' issues from a number of perspectives, and ultimately to create better solutions as a result.

At Deloitte, we began our journey to diversity in 1993 when we became one of the first professional services organizations to establish a Women's Initiative. And because of the way our leadership is structured, we have had a number of different CEOs championing it during the past 17 years. That's been essential to our success, I think. Because it's ensured that the Women's Initiative is not the pet project of just one executive. It has become fully integrated into the goals and values of our organization.

And I'm proud to say that our Initiative for the Retention and Advancement of Women has just won its second Catalyst Award – making Deloitte the only professional services organization to receive multiple honors from this pioneering organization.

We've had some good success with our Women's Initiative over the years: I'm proud to say that the latest class of partners, principals and directors our leadership contains the highest percentage of women we've ever promoted. Today, Deloitte has more than 1,000 female partners, principals or directors.

But, while we're pleased with our progress thus far, we're not kidding ourselves. We still have a long way to go until women are fully represented at all levels throughout our organization – and we're committed to getting there.

The mission of all our diversity efforts is to drive marketplace growth and create a culture where the best women – and men – choose to be.

Part of what has enabled us to build that kind of organization is that we've moved away from the "one size fits all," "my way or the highway" kind of corporate culture that was prevalent when I began my career over 30 years ago.

Back in the late 1970s, it was rare to find a woman in the business world...unless she was sitting behind a secretary's desk. Our story about Maria and her love of music reminded me that another industry women have had difficulty breaking into is classical music. In Maria's home country, the Vienna Philharmonic didn't hire its first female musician until 2001!

Of course, if you talk to the orchestras about it, they'll be quick to explain it's not due to *prejudice*. On the contrary! As one Viennese sociologist pointed out – and I quote – "Music is something special. It is a special deep knowledge, it has something to do with magic." He said that men's orchestras, quote, "carry secrets that are involved with music and tones."

This myth of the "magic" that men bring to music has been disproved time and again when orchestras hold blind auditions. The orchestra places a screen in front of the applicants, so the judges cannot see the race or gender of the person auditioning. A study by economists Cecilia Rouse of Princeton and Claudia Goldin of Harvard showed that women had a 50% greater chance of advancing during blind auditions than in the traditional process. It's one reason that the representation of women in American orchestras, at

least, increased more than threefold between the 1970s and the late 1990s.

I doubt anyone could ever speak about the "special, deep knowledge" that male *accountants* carry. They'd be laughed out of the room. But still, our profession has encountered challenges over the last couple of decades in retaining and advancing many of the talented women who join us. And in a way Deloitte's solution to this challenge is not unlike the orchestras' solution. But instead of genderblind *auditions*, we have created a *culture of opportunity* in which everyone, no matter his or her gender, has access to the same resources.

We have programs at every level of the organization that allow our people to create their own opportunities and use their skills to create a career path that suits them. Instead of climbing a career ladder, Deloitte offers its people a lattice organization – where people may choose to progress vertically, diagonally or even laterally, adjusting their career trajectory as their professional or personal goals change.

As the lattice analogy suggests, our approach to talent development is highly individuated. While we have put in place some overarching, organization-wide programs over the years, we've had some of our most lasting successes when we get granular – helping each employee to customize the talent development program he or she needs. And the program that's most emblematic of that granular approach is Mass Career Customization, or MCC for short.

We see MCC as a business expression of our values around diversity and inclusion. It enhances the overall diversity of our organization: diversity of mindset, work style, goal-setting. You'll notice that none of those diversities is gender-specific. And that's one of the beauties of MCC – it isn't a "women's program." It recognizes that *everyone* in the workplace has both a career *and* a life, and that nobody should be required to sacrifice one for the other.

I'll give you an overview of the program today, but if you're interested in the details, they're explained in an excellent book by my partner Cathy Benko, cleverly titled *Mass Career Customization*.

MCC allows each of our professionals men *and* women to dial up or down the various components of their careers, or to remain on track, which is the option most of our people are choosing at the moment. For instance: A young person starting out or someone whose children have decamped for college might want to go full-steam ahead. A mid-career professional who wants to coach their kids' soccer games or care for an ailing parent may want to dial down some aspects, like workload or travel schedule. At first we worried that we'd have a flood of people dialing down, but we've actually found that most people don't change their profile at all. And most people who change their profiles are actually dialing *up*.

We've spent four years rolling out MCC to every one of our employees, and it's been so successful that some of our clients have asked us to implement MCC programs for them, too.

And MCC is not the only way in which we're getting granular with our diversity and inclusion efforts. At this point, with our Women's Initiative well into its second decade, the values of inclusion are well integrated into our culture; the broad, organizational changes have all been made. So we're starting to look closely at how those values are playing out in our businesses.

Is there a gender gap in staffing our accounts? I'm happy to report there is not.

Are women and men being assigned equally challenging roles on those accounts? I don't know. But we're doing the research to find out. And where we uncover disparities, we will hold managers accountable for fixing them.

We are focusing our attention on every stage of a Deloitte career. For a while now, we have hired as many women as men for our entry-level positions. But what happens in the second or third year of employment? We are analyzing our workforce, title by title, business by business, region by region and office by office. For instance, if Senior-level women professionals leave the Audit function at our St. Louis office faster than men at that level, we're going to find out.

But knowing where the challenges lie is not the same as *addressing* the challenges. We're committed to doing both. And the key to making that happen is accountability.

One of the things that has made our Women's Initiative so successful is that from the very beginning we have had an external advisory council keeping us accountable.

This is no rubber-stamp oversight group – the distinguished leaders who've sat on the committee wouldn't waste their time with something done merely for show. Today Dr. Sally Ride chairs the committee, with four other accomplished women representing the worlds of business, government, and academia.

We meet with our External Advisory Council twice a year. They hold us accountable for achieving our goals and provide a diverse range of perspectives about what we can do better, and what we can do next. They ensure that we keep moving the needle.

Recently we set up a new internal accountability mechanism, which I call "Talent Days." At the beginning of last year, I met separately with the leader of each of our four business functions and they committed to specific goals around women and minorities – desired outcomes for recruiting, development and representation.

Although the goals have a three-year horizon, we are tracking progress frequently, in bimonthly meetings with our Talent teams and in semi-annual meetings with me. We're about halfway through this process now and we've seen some progress, even in a difficult business environment. But I do expect to see more.

Just as MCC allows employees to create their own path to achieving their career goals, the focus on "Talent Days" allows each of our businesses to tailor the solutions to their particular challenges. Which makes sense. We've spent 17 years ad-

dressing the organization-wide disparity between genders. It's time to tackle the issues that are specific to each business.

Of course, Deloitte is not the only organization hiring and promoting women – women hold positions of authority in many companies. And they are, increasingly, the people making decisions about whether or not to engage our services. In fact, a few years ago over 90 percent of our leaders told us that they have pitched business to women clients.

So to help our people understand the diverse styles of decision-making and relationship-building that they may encounter, we created a groundbreaking workshop called "Women as Buyers." It's based on a year-long research study we undertook, including interviews with dozens of women who buy professional services, as well as academics and experts on gender differences.

We make sure that each "Women as Buyers" class contains a mix of male and female participants – and we have reaped some unexpected benefits from that choice. Men report greater appreciation for their female colleagues and an enhanced appreciation of the contributions our Women's Initiative has made to Deloitte and our clients. And everyone learns how to recognize and capitalize on different styles of selling and buying.

One of the Women's Initiative's earliest efforts was a workshop called "Men and Women as Colleagues." Everyone in the organization above the level of manager was required to attend. And as with "Women as Buyers," we ensured that each session contained people of both genders. One of my partners still remembers a conversation she had with a male colleague after they both attended the workshop. She was still at an early stage in her career, and the conversation opened her eyes about her own selling style and how she might improve upon it.

That's the kind of support that can change people's lives. It certainly changed that young woman's life: It enabled her to get on – and *succeed* on –the partner track. And that

happened because on an organizational level, we were committed to advancing the state of women in business and because on a personal level one woman had a deeper conversation with one of her male colleagues. For gender disparities to disappear, we need both channels working.

To return to our case study, if Maria had had more support from her organization – if they'd offered more flexible working conditions, if they'd had a better understanding about diverse styles of working and of leadership – she might never have left her first job.

Now, I'm not qualified to give talent management advice to convents, and I think you know that's not what I'm doing here. But I do believe that organizations must recognize and support the diversity of their employees. And when I say "diversity" I don't just mean gender, race, or sexual orientation – I'm also talking about diverse ways of thinking, of selling, and of leading. The organizations that embrace diversity put themselves in the best possible position in this difficult economic and demographic environment.

The key for us – and, I think for many businesses – has been to recognize that diversity and inclusion programs need to continually evolve. What worked 10 years ago – or 17 years ago, when Deloitte began this journey – is no longer adequate today. Organization-wide policies handed down from on high will only do so much. To really uncover the entrenched disparities, you need to get granular – round up as much data as you can, with as much detail as you can. Find where the speed bumps are for your various people and work to eliminate them.

I know Deloitte is not the only organization that has embarked on that journey. And I look forward to a time when everywhere that women – and men – turn in the business world, they will find organizations that recognize and reward diverse styles of leading. I look forward to the day when we can hear and appreciate "the sound of leadership" from everyone. •

BEST-WRITTEN SPEECH ON A TOPIC—ENVIRONMENT

Corporate Philanthropy for the 21st Century

Writer, Darragh Gray; Speaker, Stephen Green, Group Chairman, HSBC Holdings Delivered as the Pears Partnership Lecture, London Business School, London, England, Nov. 2, 2010

There are few words with a richer and more inspiring etymology than 'philanthropy'. It can be traced back over two thousand years to the Greek tragedian Aeschylus and comes from the Greek "philos", meaning benefitting, and "anthropos", meaning humanity. Philanthropy was then later defined by the Platonic Academy as being "a state of well-educated habits stemming from love of humanity, a state of being productive to humans".

So the concept and act of human philanthropy has been

around for a very long time indeed. But in many ways, the subject under discussion, corporate philanthropy, is still in its infancy in relative terms.

Of course, there are several examples of philanthropy associated with business leaders in former times which still inspire us today, like the Victorian George Cadbury who developed his model village at Bourneville for the benefit of his staff to, and I quote, "alleviate the evils of modern more cramped living conditions", for instance.

Nevertheless, until the 1950s, US law largely prohibited companies from engaging on social issues without a very clear link to business purpose. And even today, there are those who would vehemently argue that philanthropy has no place in the corporate world.

Milton Friedman, the arch defender of free market principles, fiercely believed that, quote, "the social responsibility of business is to increase its profits." In fact, in 1970, he wrote that the idea that businesses should set out to engage in broader issues was "pure and unadulterated socialism".

This is still received wisdom among some business leaders 40 years later. Only this May, the Chairman of one multinational company said in an interview that corporate philanthropy is a "misuse" of shareholder money and "you shouldn't do good with money which isn't yours".

Others might be less open about things, but more likely to agree in practice, especially in these more straitened times.

Even more recently, after I spoke about the importance of corporate philanthropy in July, my remarks prompted a former Cambridge lecturer to pen an opinion piece in the Wall Street Journal which concluded: "No one likes to think of himself as a hypocrite. But corporate philanthropists should embrace the accusation. Hypocrisy is better than larceny."

Then there are those who believe that the complex nature of the global problems we face mean they are best left to governments, policymakers and NGOs; companies 'throwing money' at issues can often make them worse.

But the fact is that the world is a dramatically different place to the one in which Friedman wrote his book. And right now, there are at four important ways in which the social and economic operating environment for banks and businesses is continuing to shift. Each of these demands that as companies, as business leaders and as individual employees, we reassess our thinking about how seriously our business takes its 'social responsibility'.

First, the financial crisis has exposed the serious error of short-term thinking by company boards and shareholders.

In the run-up to the crisis, greed too often led to a focus on the short-term at too many banks – and indeed in too many other corporate boardrooms. A culture had begun to pervade some quarters that it was fine to pursue quick profits without any concern for the longer-term consequences.

To respond to Friedman for a moment, I do absolutely believe that the primary objective of any business must be to earn as good a return as is sustainably possible on the capital entrusted to the company by its shareholders. Yet the crisis has made it more evident than ever that this should not be the over-arching objective of management in business. It should, rather, be the hallmark of business well done.

Indeed, one of the most striking features of the last year or two is the way in which discussion about the role of business and the importance of values has become quite commonplace in a way that certainly did not happen ten or 20 years ago.

Investors are making their voices heard in this energetic and important debate. Over the last decade or so, we have seen the steady development of socially responsible investment products. Today, things are moving on, and investors are increasingly assessing the health of every investment in every company, using a range of measures, including environmental, social and corporate governance. Shareholders are realising that these issues are essential to sustainably successful business models – and therefore to sustainable returns.

Above all, it is now better understood that delivering real, sustainable value depends upon understanding and responding to the needs and expectations of all of a company's stakeholders. This starts with the nurturing of long-term customer relationships, which, in turn, depends on engaged employees, who are appropriately rewarded and respected as 'ends' and not just treated as a 'means'.

Increasingly, relationships with both of these groups of stakeholders are dependent upon the perceptions of the contribution a business makes to its wider constituency. The author of "Good for Business", Andrew Benett, puts it neatly when he says, "Consumers have become more mindful, more thoughtful, about how they consume, where they consume, why they consume".

Second, the global challenges we face today are of such a radically different nature and a vastly increased scale such that no one nation or stakeholder group can solve them alone.

If last year's Copenhagen summit showed us anything, it was that, in the generations ahead, global problem-solving on this scale will require a multi-stakeholder approach. And by that I mean a partnership between public and civil society in which business has a valid and valuable role to play. Businesses and financial markets will simply have to help.

So, some experts now suggest that businesses can and should play a more active role in tackling social and economic issues. Where once this was seen as the responsibility of governments and international organisations like the UN, there is now a greater willingness to harness the expertise and influence of a broad range of stakeholders.

This does not mean companies trying to solve political problems that they don't understand. Rather it is about seeking to drive economic development in ways that can help to deliver a more stable society.

Which brings me to a third point.

The environment of public opinion in which business operates has, quite simply, changed.

Companies need to acknowledge the link between their operations and the wider social needs of the countries and communities in which they do business.

They need to understand that they are often – whether they like it or not – perceived as actors in a whole range of issues, from environmental concerns to resource scarcity; and from economic development to conflict and instability.

So when HSBC opened a branch in Jaffna in northern Sri Lanka at the end of last year, to give one example, that was clearly a commercial business decision but it was also interpreted by many, more widely, as a signal of confidence about an area emerging from decades of strife.

Flying below the radar is no longer an option. Companies will be called to account for their actions – and their inactions. The crisis, in turn, has elevated the levels of scrutiny to which business is subject. Business leaders are certainly feeling this: 72 per cent of global executives said last year that the public's expectations of business have increased as a result of the crisis. And I believe greater public awareness is a trend here to stay.

Finally, here in the West, the crisis and ensuing recession are now giving way to a period of adjustment and austerity not just for the taxpayer, but also for the voluntary sector.

In the UK, over three quarters of large charities have experienced a drop in income because of the downturn - and at the same time as a third of them are seeing a rise in demand for their services. And this time, the scale of the recession means that charities fear this money could be permanently lost. Meanwhile, the Association of Chief Executives of Voluntary Organisations estimates that government giving to the charitable sector could fall by up to 4.5 billion pounds.

As an aside, an interesting leader article in The Times last week attempted to draw a distinction between the culture of giving in Britain and the United States. It observed that wealthier US households give 7.4 per cent of their income while equivalent UK households give only 1.2 per cent.

I suspect that, if you went across the English Channel, you would find that the ratio was even lower. Certainly, it makes sense that levels of individual giving and levels of social and welfare provision would have an inverse correlation.

However, the article got me thinking. Is that same pattern true of companies too? Some qualitative studies suggest a similar pattern is apparent. But here, I think, there is much less of a less logical justification. Companies with global operations, especially, face the same responsibilities for the environment and for social and economic development in emerging markets, for example, wherever they are based. Moreover, an analysis of corporate giving following the Asian tsunami confirms that Scandinavian countries – which enjoy probably the best social and welfare provision anywhere in the world – were among the most likely to donate.

So perhaps The Times is right to suggest that Britain should do more. Certainly, it is true that – for whatever reasons – we lack the long tradition of American philanthropy. And it is definitely proper that, as the world's centre of gravity shifts, UK plc thinks more carefully about the needs of the emerging economies where they are guests doing business – and where the traditions of philanthropy and welfare provision may both be less well established.

So, as a result of each of these factors, I believe it is now time to develop and articulate a new vision for corporate giving which fits more properly with the challenges and opportunities of a 21st century world.

First, we would do well to start by deconstructing the old fashioned view of 'corporate philanthropy'.

Despite its rich etymology, this perhaps means reviewing the usefulness of a term which is several thousand years old and more usually associated with the actions of individuals.

It certainly means losing the poor practice which has been traditionally associated with corporate philanthropy, and which, sadly, often continues today.

From presenting oversized cheques at charity functions, through to matching employee gift giving and product donations: these are all activities which undoubtedly contribute, but which are also in danger of becoming compartmentalised in a 'do good box', away from the mainstream of the business. By doing this, companies miss a huge opportunity to unlock greater value for the community and for the organisation itself.

Furthermore, it concerns me that nearly half of all corporate philanthropy decisions are still based, at least in part, on the individual interests of the Board or CEO - and continuous league tables of who gives what only perpetuate this agenda. Of course, individuals make a huge contribution in the field of philanthropy, and indeed a much greater one than companies. At their best, individual business leaders have revolutionised thinking across the entire community. But we need to move away from a situation where corporate giving strategy is based on individual interests with a view to creating a personal legacy – into a sphere where all employees are engaged.

Instead of corporate philanthropy, we might therefore better talk about community investment which is core to a broader corporate sustainability strategy. And this, in turn, must be linked to a company's values and a clearly articulated commitment to sustainable value maximisation.

Which brings me to a second point.

It is only by integrating community investment into the very fabric of a business that our engagement will deliver tangible long-term value both for the business and wider society.

Instead of writing cheques for an array of causes in an unfocused way, I would therefore argue that the company should carefully and thoughtfully select the right issues on which to engage, with reference to both the external environment and its own business strategy.

Those might be the social and economic issues which impede human progress most in the markets where a company operates. But the company should then focus on some specific aspects which are most clearly linked to business goals and strategy, and which present a real opportunity to bring an individual company's experience and knowledge to the table.

By establishing clarity on this, a company can then begin to move from simply making donations to developing longer-term, strategic partnerships which tackle those social issues which chime with a business and where action can have a real, positive impact on its operating environment.

This is not hypocrisy: companies are not charities; nor

should they act as charities. Nor is it simply marketing and gloss: every responsible bank and business needs to be able to answer a very fundamental question, how is what we do contributing to the common good?

Every company must develop its own answer to that question. But analysis suggests that those companies who take a more strategic approach to their community investment, are also the most confident that it achieves its business and social goals. There are perhaps two particular issues, above all, which are relevant for HSBC and for many other large organisations today.

One is inequality in a globalised world. Already, more than 70 per cent of earnings from FTSE 100 companies now come from overseas. And the economic crisis has accelerated a new phase of globalisation in which emerging markets are driving economic growth. By 2020, it is anticipated that developing countries will account for over 55 per cent of global GDP.

Yet many of these regions lack basic infrastructure, healthcare and education provision, all barriers to their populations realising their full potential and open to exploitation. For example, despite China's success, its rising Gini coefficient shows that inequality has increased as the economy has grown.

This continued development will also lead to competing demands on the world's limited resources. We are now set on an irreversible path to a low carbon economy. I firmly believe that any company which does not anticipate and prepare for this change is not built on sustainable foundations and will ultimately fail commercially.

At HSBC, we know that if our business is to succeed in the long-term in any country, society needs to be educated and there needs to be a clean environment. Indeed, our experience shows that, without this, our economic returns will be compromised over time. We therefore allocate around 75 per cent of our community investment budget to education (with a growing focus on emerging markets) and the environment, totalling around half a per cent of profit before tax.

Our flagship educational programme provides access to education and teaches life skills to deprived and excluded children – whether on the streets, orphaned or in care – in 47 countries. Meanwhile, our global financial education programme teaches students about earning, spending, sharing and saving money – and about finance as a career.

On climate change, HSBC is working with four leading global organisations on climate change research. So far over a thousand of my colleagues have taken part in field research, contributing to one of the most extensive forest-based carbon monitoring programmes in the world. The outcome of this work will eventually help our global understanding as to how we can begin to mitigate the impacts of climate change. But it also has the potential to revolutionise the way we work and think within our business (and I will come back to this).

Third, and finally, we need to get better at measuring the value of our corporate sustainability activity.

Three quarters of CFOs believe that social programmes make a positive long-term contribution to shareholder value, according to McKinsey.

Yet another of their studies interestingly shows that for more than 80 per cent of companies, their community investment programmes are, at best, judged to be only 'somewhat successful' at meeting their business goals.

Now, I don't believe for one moment that the average company would continue a commercial relationship which doesn't meet its expectations without at least asking some serious questions.

And, likewise, the relationships between companies and third sector partners should be professionally managed. Charities and NGOs are not businesses. But the relationships that are established should be business-like.

To my mind, that means having a clearly articulated plan before work starts; it means regular reporting against an agreed set of objectives; and it means the final investment or donation being made only when the work is complete.

Continuous monitoring and regular evaluation of our community investment activity is essential in ensuring that good value is, in fact, delivered to all stakeholders. Indeed, if we fail to evaluate and measure its impact – both in terms of business goals and social impact – how can we know that we are spending shareholder funds appropriately?

It also feels like all of this should be mutually reinforcing. By regularly reviewing things, companies can become more confident about the value of their giving. Where it works well, they will be become more committed to it, and more able to communicate that value to their stakeholders, who will in turn become more engaged.

Better measurement also potentially has a positive social effect impact by forcing voluntary organisations to improve the impact of their programmes. And corporates often have the skills and the capacity to work with their charity and NGO partners to help them do that, above and beyond any financial support. These may include the sharing of specialist and technical expertise to make them more effective, and of management best practice to help them become more cost-efficient.

So, through the investment decisions they make and the support they provide, companies can help society to differentiate between successful and unsuccessful charities, and ultimately help to weed out the consistently weak performers.

As for HSBC, I have perhaps been most encouraged at the effect which our corporate sustainability activity has had in improving staff morale and engagement.

For example, over three quarters of line managers report that our climate champions come back with new skills, a new way of seeing the business, and that they work better with their colleagues as a result of the time spent in the forest.

This analysis reaffirms what I had long suspected – that there is a positive and mutually reinforcing correlation

between levels of staff engagement and participation in social initiatives. And that the vast majority of my colleagues want to know that their job makes a difference – reward is not their only motivating factor, or even the most important one.

And it is important that we do not lose sight of this point. Because how a company behaves – and is perceived to behave – will play an increasing role in attracting and retaining the brightest and best of the next generation. In a competitive global marketplace with a 'war for talent' raging, strong employee engagement is potentially priceless. As one CEO succinctly put it recently "young people have a high expectation of doing well and doing good. They want to become Bill Gates the businessman and Bill Gates the philanthropist."

In conclusion, the financial crisis has presented the banks – and the corporate world more generally – with a real opportunity to prove, once again, their value to society. As such, it could yet prove to be one of the positive turning

points in modern corporate history. It is certainly clear that the big issues of the generation ahead will provide opportunities for companies to make a more active contribution in a way that reinforces the sustainability of their own business model.

To be clear, no company will ever get all of this right, all of the time. Companies are imperfect and the individuals that work in the companies are imperfect. There is always going to be a risk in saying something and seeking to live by it, whether as a company or as an individual. You are always at risk of falling down on the job, or of looking like a hypocrite. But actually, in the end, you only have two choices. You either articulate your long-term strategy and try to do your best, or you become the cynical, short-term thinker. I think we would all agree as to which is the more attractive. I am certainly clear in my mind which is the more socially productive.

Thank you. •

BEST-WRITTEN SPEECH ON TOPIC—ECONOMICS

Shift Happens

Writer, Barbara Busey; Speaker, David Dooley, President, R.T. Dooley Construction Delivered at the Charlotte Succession Group, Charlotte, N.C., June 8, 2010

ood evening. I thought I'd start out my talk this Uevening with a calendar. [Hold up a year-long calendar.] I want you to picture a year-long calendar, one that starts on January 1 and goes to December 31. Now imagine that we could fit the history of humankind onto that calendar; it starts at January 1st with the origin of our species and ends with right now, which we'll say is one second before midnight on December 31st. January 1st represents some 200,000 years ago when the species we belong to, homo sapiens, evolved into existence. For the next eleven and a half months, this species lived in caves, survived by hunting and gathering, and developed stone tools to help with survival. It was not until roughly December 19th of this imaginary year that our species began to farm the land and domesticate livestock. About December 21st, they invented the wheel, and the first forms of writing began, signaling the end of the prehistoric era.

December 22nd ushered in the Bronze Age, when our ancestors developed the skills to make bronze for weapons and tools. On December 23rd, the first pyramid was built in Egypt. December 25th started the Iron Age, an even more advanced metallurgical stage where man was able to create tools and weapons forged out of iron or steel.

Around noon on December 28th, about three and half days before the end of this year, Christianity began, marking our calendar differentiation between B.C. and A.D. During the next three days, many significant world events

happened, including the fall of the Roman Empire, the Crusades, the Middle Ages, the Renaissance, etc. But it was on the very last day of this year, at 2:30 p.m., that the Industrial Age began, with its amazing inventions such as the steam engine, electricity, the assembly line, the airplane. Sometime around 9:00 that evening, the Information Age was ushered in, when the telegraph and telephone were invented, the first satellite was launched, nuclear power was discovered. It was during this time that the first computer came into existence—it took up more space than an 18-wheeler tractor trailer, weighed more than 17 Chevrolet Camaros, consumed 140,000 watts of electricity and could execute up to 5,000 basic arithmetic operations per second. Before 11:30 that night, the microprocessor was powering personal computers; it was built on a tiny piece of silicon about the size of a dime, weighed less than a packet of Sweet "N Low, used less than two watts of electricity and executed 54 million instructions per second.

The last 26 minutes of this hypothetical year represent a new period we are entering as we leave the information age. Futurist David Houle has dubbed it the Shift Age, a period that has moved faster than any other and will be considered by historians as the most significant "shift" ever in human progress and development—far beyond the impact of the Industrial Age or the Information Age. It's marked by a new global economy, 24/7 connectivity, instant access to information, and wireless and digital

technologies that improve the speed, volume and quality of communications. Cell phones, webcams, GPS, satellite radio, digital television, the Smartphone and social media are just some of the examples of the technologies reshaping our everyday world. And this "age" will probably be over before the first hour of the "new year" has past.

So, you could say "Shift Happens." Change is occurring at supersonic speed. Not only is the world entirely different than it was a generation ago, but it's going to continue to change at exponential rates. As a CEO or business leader, you have to be able to anticipate this change and manage change. It is absolutely going to be key to your survival, because our economic and social future is going to be dramatically impacted by this change.

Let me give you just a few examples:

- The US Department of Labor estimates that 25% of today's employees are working for a company where they've been employed less than a year. And one half have been working at the same company for less than five years. Today's student will have 10-14 jobs—by age 38.
- We are currently preparing students for jobs that don't yet exist, to use technologies that haven't yet been invented, to solve problems we don't even know are problems yet.
- According to the social media site Facebook, it has 400 million registered users. If Facebook were a country, it would be the third largest country in the world, between India and the U.S.
- In China, the top 25% of the population with the highest IQs is a greater number than the total population of North America. This means they have more honors kids than we have kids.
- There are currently 2.7 billion Google searches every month. What did people do before that availability of information was at their fingertips?
- The number of text messages sent each day exceeds the population of the planet. And I think my daughters are responsible for about half of them...
 - There are 3,000 new books published—every day.
- 1.5 exabytes of new information was generated last year. An Exabyte is 10 bytes to the 18th power—that's a 1 with 18 zeroes after it. That's more than the all new information generated in the last 5,000 years! Those are just a few examples of how different the world is today and how quickly those differences have happened. Have you ever wondered, "Why do things seem to happen so fast?" Now you know, you're not imagining it. The world is changing a lot, at faster and faster rates. And, this fast pace of change isn't slowing down, but will continue unabated. When I was asked to speak to this group, I was told you wanted me to share my advice on what it takes to be successful. And truthfully, what worked for me 20 years ago, heck even five years ago, is not going to work today. This Shift Age has created all kinds of new considerations for success in the coming years. I'd like to share a few thoughts about the forces driving this Shift Age, the new issues and chal-

lenges we will have to face and solve in this Age, and what I think you're going to need to be successful.

Back in the prehistoric world, tools defined the age—from the Stone Age to the Agriculture Age. Then in the Industrial Age, machines defined that era; in the Information Age, it was technology. What will define the Shift Age? Futurists claim it will be "consciousness" because we now live in a time in which information has become so abundant and readily available that whatever you can be conscious of at any given moment becomes important—attention has become our greatest commodity.

So what are the forces driving this focus on "consciousness"? According to David Houle, the three biggest forces are:

- 1) accelerating electronic connectedness
- 2) the flow to global
- 3) the flow to the individual

I think everyone gets the electronic connectedness. Think about your computer, your laptop, your Blackberry or iPhone. Who could have imagined 30 years ago the concept of a device that would enable you, at the touch of a few keys, to get any kind of information, to get in touch with anyone anywhere, or to buy or sell goods and services without ever seeing your transaction partner face to face? The internet and wireless technologies have transformed the way we communicate, socialize and do business.

Number two, globalization. The question of whether globalization is good or bad is no longer a valid conversation. It's a historic one. Regional economies, societies, and cultures have become more and more connected through communication and trade that spans the globe. Your outfit was made in China, your customer service representative talked to you from India, your food was grown in South America. This is our new economic reality. And at RT Dooley, we know this to be true. We're currently working with Bank of America on one project that could take us to 150 cities in the US and 15 countries worldwide over the next five years.

Number three, the flow to the individual refers to the trend that gatekeepers—those intermediaries who traditionally handled our transactions—are being moved out. The Internet has transformed the customer experience. Customers book their own travel, even select their own seats, without travel agents; they can pick what TV shows or movies they want to watch when, regardless of when they're offered on network schedules; they can buy and sell their stocks and bonds without going through a broker; they can purchase almost any product without leaving their chair and have it delivered right to their door. These are examples of individual empowerment—the consumer is increasingly in control of the how, what and when of our lives.

These three forces—connectivity, globalization, and consumer control—are going to be the drivers in this New Age. So what? What does it mean for us as workers, as entrepreneurs, as Americans? The futurist David Houle identified several key issues that he believed are our biggest

challenges as we enter this new millennium. I particularly believe that four of them are crucial to face and solve in the near term for our economic well-being. And it will fall to you, as young rising business stars, to address these challenges and determine how we navigate the next 20 to 30 years. You will write the history that will determine whether future historians will praise our wisdom and insight or indict us for ignoring the obvious.

Here are my top four issues related to the new way we have to do business and deal with challenges ahead:

- 1. Energy. We were a world powered by cheap oil. That is no longer the case. Fossil fuels must be replaced by alternative energy of all types. There is a business opportunity, as well as a moral imperative for the health of the planet, to explore and develop a vast array of energy options.
- 2. Infrastructure. Our country's infrastructure is frighteningly old. Bridges, highways, subways, dams, power generating plants—the vast majority of this system is 70 to 100 years old. It needs updating, re-engineering, re-building before something catastrophic happens. I'm pleased to state that at BalfourBeatty we have a leading market share globally within the infrastructure industry.
- 3. Global economy. America has to figure out how to fit into this new reality. While our clothes are made in China and our electronics in Japan, what is America making and exporting? There is a huge opportunity for America to become a thought leader, to create intellectual property and be the innovation engine of the world. We need to figure out what to create, then how to develop it, export it, and create value around it. We need to create differentiation.
- 4. Global leverage. With great minds and great talent all over the globe, it makes the most sense for us to capitalize on that brainpower to solve the problems of the world. The U.S. should lead the effort to create a cooperative global council, charged with tackling the issues that are affecting this whole planet.

Those are four crucial areas that have to be addressed immediately. Creativity and innovation will be key. Reaction time will be critical, but at the speed of change today, even immediate reaction could be too late... So what can we do? We have to take initiative. We have to be the change agents.

What will that entail? For those in the business world, I think one key factor will be differentiation. You have to set yourself apart, find a niche and drill down into it so you can add value. We began doing that at RT Dooley by creating vertical markets where our expertise was best in class—building data centers, call centers, trading floors, headquarters and renovations for clients. This allowed us to grow and expand rapidly to serve our corporate clients.

Another key to success: I think Houle is on to something when he says innovation and intellectual property is our new reality. Those who can think outside the box—invent, create, design—in software, in the digital technologies, in science and R&D—these people can literally write

the blueprints for tomorrow.

A third key factor: in a world where the customer has so much information at his fingertips and has so much control, you have to develop a different relationship with him. You've got to get closer to him. You have to be a resource to him, support him, stay in touch with him, and offer innovation and solutions to him. You must be his trusted advisor.

By the way, I use the masculine gender here because it's grammatically acceptable and simple. But it does warrant mentioning that women are going to be one of the forces to consider in this new age. Women college graduates have been outnumbering men for several years now. Last year, 58% of college graduates were women. If current trends continue, then within the next decade, female college graduates will outnumber their male counterparts, two to one. And a larger number of women graduates will mean more women moving into professional and white collar jobs, more women in positions of power and high income earnings, more women in leadership and decision-making roles, more women hiring and firing. I look around this room and definitely see a disproportionate representation of men... J Just mentioning it, guys. Something to keep in mind...

Finally, let me share five guiding principles that direct my life. While this new world order is challenging and calling for out-of-the box thinking and innovation every day, I still practice and believe in these five basic precepts:

- 1. Your attitude and approach to life will make a difference. Being humble and grateful and positive can alter your life.
- 2. Planning is absolutely key. You must have a vision for where you want to go and a strategy for getting there. And in this fast-changing world, you must be flexible enough to alter your course and change your strategy as the situation warrants.
- 3. People are vital. They can help you or hurt you in your career. Choose those you associate with carefully. Identify and work with mentors—and be a mentor yourself. Cultivate good relationships, with lots of people. It will help you immensely over your career.
- 4. Have a clear sense of values to guide your life. You'll find that the tough decisions will be easier if you have ethical principles to guide you. Several years ago, my family and I created our personal creed statement: be trustworthy, be focused, be humble, be a team player, and be godly. This creed guides all my actions and decisions in life.
- 5. Have faith. A spiritual underpinning to your life will not only be a moral compass, but can sustain you during the bad times and uplift you and inspire you in the good times.

These five principals are the foundation of my business life—everything else is built on them. While the winds of change are transforming the world I do business in and the earth is shifting under my feet, at least I feel well-grounded and less likely to succumb when things get really shaken up.

So, as you can see, "Shift happens." The impact of globalization, faster technologies, and more consumer control has literally created a smaller world. Change is happening at an ever increasing pace. It's inevitable, it's unavoidable,

and it will continue unabated far into the future. It's going to be up to you to harness these changes. You're going to have to be faster, quicker, and smarter in order to make a difference while making a profit in this new world.

In closing, I have just one thing to say. Take everything I said here tonight with a grain of salt—because from the time I started until now, it's already outdated.

Thank you! ◆

BEST-WRITTEN SPEECH ON TOPIC—HEALTHCARE

A Call to Action: The Future of Nursing Begins Now

Writer, Emerson Moran; Speaker, Risa Lavizzo-Mourey, M.D., MBA, President and CEO, Robert Wood Johnson Foundation

Delivered at University of Pennsylvania School of Nursing, Philadelphia, Pa., Oct. 14, 2010

Good afternoon, everyone. And thank you, Afaf – for your friendship, for your wise counsel, for your relentless leadership in nurse education – and for your very kind introduction.

My thanks to all of you, as well. Believe me, I know how hard it is to break away from the urgencies that rule our days. But I also know the horrific price we pay when we put off getting ready for the even tougher urgencies that are certain to confront us when tomorrow comes. And come it will.

This is the Institute of Medicine's brand new report on the Future of Nursing. It went up on the Web 10 days ago. Many of you've seen it already. The title tells us why we're here and what's expected of us. It says ...

THE FUTURE OF NURSING: LEADING CHANGE, ADVANCING HEALTH

You can download free copies from our website, <u>thefutureofnursing.org</u>.

On its face, the report is about the future of nursing. Don't be misled. It's really about filling in the final missing pieces of health care's larger puzzle.

Two years ago we proposed that the IOM undertake a sweeping examination of nursing in America and what the nation will need from the profession in coming decades. The IOM convened a special committee and, with our support, set about its task.

The chair was Donna Shalala, president of the University of Miami and former U.S. Secretary of Health and Human Services. The committee was made up of 18 leaders from higher education, economics, medicine, business, public health, research, health policy, information technology, and, of course, nursing itself.

Their charge was direct and sweeping:

"Examine the capacity of the nursing workforce to meet the demands of a reformed health care and public health system."

The IOM wanted "bold" recommendations addressing:

• The delivery of nursing services in a time when demand far outstrips supply.

- The shortage of nurses that's expected to be severe all across the country.
- And the capacity of the nursing education system to meet America's health care demand now and in the future.

They were asked to come up with a clear agenda – a blueprint – for changes in public and institutional policies at the national, state and local levels.

They took on this task knowing exactly what they needed to do. And they did it.

Take note: This is the first independent, outside, authoritative assessment of nursing in memory.

Their findings are courageous, sharply-drawn and straightforward. They are based on thorough research and solid evidence. Some of their conclusions and suggestions are controversial already. That's because they are so consequential.

I've read the committee's report. The magnitude of what they've achieved far exceeds our expectations. This is nothing less than the owner-operators manual for the future of nursing in America – and how to get us there.

I believe the impact on nursing education in America promises to be as profound and lasting as medical education's Flexner report of exactly 100 years ago this year.

The committee concluded that "the nursing profession has the potential capacity to implement wide-reaching changes in the health care system" – and "the power to deliver better care."

There's a big "IF," though.

None of this will come about unless stakeholders and leaders like you come together in common cause to transform – not reform, but transform – health care as we know it into health care as we know it can and should be.

Our foundation's role is to facilitate implementation of the report's recommendations.

Today's "Pennsylvania Launch" is the first step. It marks a defining moment for nursing and education – and a huge milestone in America's long and often troubled journey toward better health care.

The job ahead will test our willingness to change. Our gumption to stay the course. Even our patience with one

another. But oh my, is it ever worth it!

There's an African proverb that says "tomorrow belongs to the people who prepare for it today." Starting today – tomorrow belongs to you – if you so choose.

I'm here to ask you to help us make a difference between the way nursing used to be – and they way it is going to be. It will be like the difference between night and day.

In just a minute we'll talk about what this means for all of us. But first, some reality-based context. At the Robert Wood Johnson Foundation, we've looked forward to this moment for a long, long time.

Going way back, strengthening nursing was a personal crusade of our founder and namesake.

Though they called him "The General," his health was never robust. Rheumatic fever as a little boy left him with chronic cardiac problems as a grown-up man. He spent a lot of time as a hospital patient.

In the process, he had his own epiphany about what really matters in care at the bedside – especially when it was his bedside.

The General would prop himself up in his hospital bed and with a pad and pen he'd spell out his own orders for how nursing ought to be.

- Patients always come first, he said. That's non-negotiable.
- Next, tear down the "rigid caste system" that is the enemy of hospital efficiency and treats nurses as less than full partners in care.
- And finally, The General concluded, if we're serious about improving the quality of care, nurses had better have a major voice in how we're going to do it.

Now remember, this is a view from 60, even 70 years ago. It's a view that's built into our philanthropy's DNA – and into mine as well.

What's stunning to me is how much has changed, how much has stayed the same, and how this straight-forward prescription for improving the quality of health care

has stood the test of time so strongly.

My understanding of nursing came early in my career as a physician when I was on the faculty of Penn's medical school and nursing school.

My specialty was geriatrics and I had the good fortune to practice and teach in a team composed of nurses and doctors. It was great!

When we got into clinical settings we taught each other. Hospitals, nursing homes – even house calls – we did it all. Our team's passion for patient care was contagious. I loved it.

Our collaboration awakened me to what nursing is really all about. No wonder, then, my alarm in recent years at the weakening of nursing right when the country needs the profession to be stronger than ever.

The challenges are huge, they're obvious, and they so far are unresolved.

Just listen to the bill of particulars from the IOM report ... If nothing changes, the U.S. will face a shortage of as many as a million nurses by 2025. Hospitals, doctor's offices, clinics, nursing homes – no one will be spared.

It's already happening. Veteran nurses – discouraged, underpaid, too often treated as medicine's second-class citizens – are quitting the profession early.

Meanwhile, the oldest members of our families are living longer and needing more care.

Add to that the expected surge of more than 32 million previously-uninsured patients who're about to be covered under the new law.

Plus the deepening shortage of primary care providers that's making it harder and harder to find a primary care physician.

Plus the all-in-one "medical home" movement that relies heavily on nurses and team work to coordinate care, manage chronic disease, and educate patients on how to take care of themselves. It's all at risk.

It should be no surprise, then, to know that there's a corollary shortage of adequate nursing faculty to attract, educate, train and retain enough nurses to meet current and expected unmet needs.

Compounding the shortage – nursing education hasn't consistently kept pace with all the changes in patient care, quality standards and new technologies.

As a result, we produce cadres of nurses who may not be fully prepared for what the rapidly changing workplace is going to demand of them.

There's an added factor, too: The nursing workforce too often does not reflect the race, gender and ethnicity of the patients it serves.

Differences in language, diet, and culture – when not anticipated or accommodated in either the classroom or at the bedside – can be as dangerous and deadly as any other medical error.

Given all that we know. And given all the decades of political and legislative sound and fury. And given that the most comprehensive changes in health care in almost half a century finally are the law of the land. Well, you'd think that the future of nursing would be squared away by now.

Think again. It's not. Why not?

Sure, the Patient Protection and Affordable Care Act does concede some of nursing's pre-existing conditions involving workforce development, education, and safety net services. (None of it, by the way, funded yet by Congress).

But the full potential of the profession's 3 million-plus nurses has yet to be tapped to its full potential.

That's pretty amazing when you consider that the American public trusts nurses more than any other group involved in their health care, more even than their doctors and pharmacists.

Opinion leaders in health care, business, government, and academia agree.

They told the Gallup Organization, in a poll we sponsored, that nurses should have more influence in reducing medi-

cal errors, improving the quality of patient care, promoting wellness, imposing higher efficiency, and in lowering the cost of care.

This is what they are telling us: Just as nurses are the patient's primary protectors, nurses should also be empowered as co-equal leaders in health and health care.

But the fact is that old and seemingly unshakeable barriers of health care culture and custom somehow still block nursing from providing patients from all that they have to offer.

As a result, we're squandering this critically needed national human resource for healing. That's just plain wrong. I'm here to tell you that with your help we're going to right this wrong.

The Future of Nursing committee explains how to do it with the same vision and high-impact of other IOM landmark studies like those on the quality of care, medical errors and public health.

The report is complex and wide-ranging, with dozens of recommendations, large and small. Overarching everything are four principal recommendations that tie the whole thing together.

Number One: Empower nurses as leaders in health care. Nurses are fully capable of leading change. The time has come for them to do exactly that – from hands-on care at

come for them to do exactly that – from hands-on care at the bedside to decision making in the executive suite.

Nurses must be at the table whenever decisions are made about patient care.

In turn, nurses, have a responsibility – an obligation, really – to build their own leadership and partnership skills, knowledge and savvy.

That's why this next recommendation is so urgently important.

Number Two: Align nurse education to transform health care and shape the future of the profession.

Nursing's multiple educational pathways are unique among U.S. health professions.

The most common path to a nursing license is to obtain a diploma in nursing from a community college – a portal first opened to fill a serious nursing shortage after World War II. That was a long time ago,

The less common, longer and more expensive path is to obtain a bachelor's of science in nursing. That's about to change.

The fact is that the nation needs more baccalaureate nurses no matter what road they traveled to get there.

We need more nurses who are qualified for advanced practice positions. More nurses competent in everything from community care to public health, research to evidence-based practice, health policy to leadership.

This is a tall order to fill. But fill it we can by channeling more and more students from the traditional community college platform upward into more advanced levels education.

The national standard set by the IOM is for 80 percent of all nurses to hold bachelor's degrees by 2020. Remember

that. 80-20. That's the goal.

Meeting it requires nursing schools to work together like never before – not by tearing down what already works so well for so many – but by opening new opportunities for nurses to advance their education.

It's an understatement to say that this is a big challenge for deans of nursing and medical schools.

You are asked to invent and support a new educational model – one that trains nurses, doctors and other health professionals to work together as teammates – and not as a hierarchy of superiors and subordinates.

It also means more nurse faculty and researchers – masters and PhD – so our next generation of degreed nurses has an unobstructed shot at becoming nurse educators themselves.

Mounting a common cause like this requires a level of inter-professional and cross-sector collaboration that's too often missing today. Take heart, though.

From my own experience I can tell you that collaboration leads to understanding, understanding leads to mutual support, and support leads to better practitioners working together to achieve better outcomes.

This may not be an easy pill for some to swallow – at first, anyway. I know. I learned the hard way that I was a better student, a better teacher and a better doctor when I was part of a team. You will, too.

Number Three: Expand the "Scope of Practice."

Nurses are educated and prepared to deliver a higher, more effective level of patient care than existing federal and state policies and common workplace practices permit them to do.

Certainly, earning a medical degree requires an enormous commitment to years and years of education and training. Physicians understandably are protective of their traditional authority, autonomy, and dedication to patient care.

Listen – I worked incredibly hard and at great expense to become "Dr. Risa, M.D." I know just how seriously most physicians take their hard-earned ability to diagnose and treat injury and illness.

Yet, I see clearly that the time has come to expand nursing's scope of practice.

The hard truth is that while medical specialists are in abundant supply, there are not nearly enough primary care physicians and other health professionals to care for America's young families and their aging elders.

The most obvious, the most logical answer is to widen and deepen the professional scope of the country's entire workforce of general RNs as well as advance practice nurses.

For example: Nurses in doctor offices can coordinate care, educate patients about risky behaviors, and how to manage their own chronic conditions. School nurses can guide obese children toward healthier eating habits and. partner with pediatricians to educate kids about diabetes, asthma, STDs.

To not advocate expanding the nursing scope of practice

would violate the oath I swore to "not be ashamed to say 'I know not" or to "call in my colleagues when the skills of another are needed for a patient's recovery."

This way all patients will have access to the care they need from health professionals they can trust without leaving the hometowns where they live, work, raise families and grow old themselves.

Some professional groups are uncomfortable with this proposal, and we understand that. Look at it this way, however: Webster's cites two pertinent definitions of the word "scope."

One says scope applies to a "limited field" and a "marked off area of relevancy"

The other defines scope as the "space or opportunity for free and unhampered motion, activity, intention, thought, or vision."

The status quo may seek shelter in that marked off and limited field.

But to this physician, nursing will step fully into its future when education and training open the doors to opportunity, when collaboration and teamwork replace turfs and silos, and when policies based on the best evidence is what tells us what's best for patients.

Finally, Number Four is about workforce data.

This is the recommendation that under-girds and connects One, Two and Three.

America's patient population is churning, changing and growing. Our health care workforce needs to change and grow to keep up.

Good, solid, reliable evidence reveals what works, what doesn't work – and why. The trick is to accumulate, aggregate and analyze data wisely so it works for us, and not the other way around.

Workforce capacity, diversity, education, training, influence and leadership – we'll discover the answers through the strategic application of what we learn.

How well we control and command information and knowledge is what will determine our impact on nursing education through the next decade and beyond.

We can do this, of that I am certain.

I said before that this is the missing piece of health's care's incomplete puzzle.

The need to complete the puzzle is irrefutable. It makes good health care sense. It makes good medical sense. And it sure makes common sense.

This is a call to action that says ...

"Do It! – And Do It Now!"

We're talking about mobilizing a national movement to bring about consequential change in one of the country's most essential sectors.

We take this seriously. Our Board considers this a legacy commitment by our philanthropy – one that is vital to the strength of our nation. And so do I.

We are prepared to stay the course – not matter how long it takes.

So far we've committed some \$10 million to the initial investigation and research, and on readying the field for what is certain to be a long period of disruptive, innovative change.

Our history and experience harnessing change on this scale teaches us that the nursing movement will need the support of disparate and possibly unexpected forces and personalities.

Take our collaboration with AARP. They are the largest and one of the most influential member-driven consumer groups in the country. Their strength and skill as changeadvocates and coalition-builders is legendary.

In advance of the IOM's report, together we set up the relatively new Center to Champion Nursing in America.

Eventually, the Center will organize and lead a broadbased coalition of consumers and patients, hospitals and health systems, insurance companies and other payers, higher education, state and federal governments, other health professionals and, of course, nurses.

In other words – the Center will provide a home base for the national campaign to strengthen nursing. Actually – the mobilization's already started.

Last week, as the IOM released its report at the National Press Club in Washington, watching and listening online from outside the Beltway were health care leaders, educators, policy makers and practitioners were from hospitals, research centers, universities, executive offices, government agencies and nursing schools all across the country.

Some of you were among them. So many logged on that the servers crashed. How good is that?

In coming weeks we'll launch a new version of thefutureofnursing.org. It'll be informative and inter-active and loaded with resources. Think of it as your real-time link to the future of nursing as it unfolds.

The site offers ...

- Details on the IOM recommendations and the research and data behind them.
 - Blog posts, forums and user feedback.
- Start-up Ideas, action steps and resources for stakeholders, organizations, alliances and individuals.
- Examples of local programs that exemplify what the recommendations can achieve.
- And authentic personal stories and case histories that illustrate the principles behind the recommendations.

For me, this symposium – "The Pennsylvania Launching" – marks the moment when the future of nursing really begins. Our setting is – pardon the expression – just what the doctor ordered.

Leaders like you have been assembling on this very spot to deal with health care's most daunting challenges ever since Ben Franklin helped organize America's first hospital here almost 260 years ago.

The fruits of our discussion today will inform and, we

hope, inspire all those similar gatherings that are certain to follow.

It certainly will help determine the agenda for a two-day "National Summit on Advancing Health Through Nursing." It's in Washington November 30 and December 1.

Participating will be members of the IOM committee and more than 200 major health system stakeholders and thought leaders. They'll be charting a course for implementation of the same actions we're talking about today.

It's not going to be easy. None of us can do this alone. The trick is to ...

- Convert traditional adversaries into working partners.
- Overcome the critics and the naysayers.
- Dissolve the inherent inertia and predictable resistance of the status quo.

Now, a skeptic might say that this kind of cooperation and collaboration is a rare commodity in these discouraging days of divisiveness. Well, I'm an optimist. To see why, just look around at the company you're keeping.

Not one of us would be here if we didn't believe that America still possesses the want and the will to be true to what President Lincoln called "the better angels of our nature."

Let me tell you a story about what I mean. Back in the day, I was a primary care physician here in Philadelphia. It was my privilege to care for a woman with ALS. She'd been a schoolteacher, once vibrant, still strong-minded.

Though terribly debilitated, she was fiercely determined to stay in her row house as long as she could – no matter how bad it became. And t did become very bad.

The disease sapped the strength from her arms and legs. They atrophied. Eventually, she could move only one finger a little bit; her head, hardly at all. Amazingly, though, she could still let people into her home. She'd blow on a straw, which was rigged to unlock her door. That slight, remaining physical

capability was her key to maintaining the quality of life she demanded and deserved.

She was a Jefferson University Hospital patient. A home health aide knew her and cared for her well. Specialists from Jeff regularly addressed her neurological needs.

Here's where it gets complicated. They didn't make house calls.

We anticipated the disease's progression. We met her needs.

I was a Penn doctor, and, along with a Penn nurse practitioner and the geriatrics team, we did make house calls.

Our team – Jeff and Penn – patched together a network of family, caregivers, community, hospitals, doctors, nurses and other health professionals. We even had a podiatrist on call.

We created an ad hoc, integrated system of quality care that managed her chronic care in a well-coordinated, prospective way that was not extraordinarily expensive.

Since she only had one admission to the hospital in all the years we cared for her, it was low in cost and high in reward.

We made it possible for her to live the way she wanted to live – and to die the way she wanted to die – all thanks to the power of that simple straw, and to our resolve to make the system work for our patient, and not the other way around.

My goodness, if that frail little old lady could open her door with a straw, we ought to be able to open the door to a future for nursing and health care in America that's safe, reliable, high quality – and full of fairness and health care justice for all.

Let's get started. Let's get the job done. Let's open that door. •

BEST-WRITTEN SPEECH ON TOPIC—LEADERSHIP AND MANAGEMENT

Ethics as a Business Strategy

Writer, Fletcher Dean; Speaker, Andrew N. Liveris, Chairman and CEO, The Dow Chemical Co. *Delivered at the Center for Business Ethics, Bentley University, Waltham, Mass., Nov. 4*, 2010

Thank you Mike (Hoffman) for that kind introduction.

And thanks to each of you for that warm reception.

It is a pleasure to be here with you, and an honor to be asked to give Dow's perspective on business ethics.

Business executives aren't often asked for their views on ethics these days—unless it is by a congressional subcommittee.

This is a far friendlier forum than that, I am glad to say. I want to start by thanking Raytheon and my friend Bill Swanson for sponsoring this lectureship. These discussions, as you know, are vital to the health of the corporate community. Thank you for supporting them.

I am extremely impressed by what this university

and this center have done to put ethics in the spotlight throughout the business community. Your work here at the Center for Business Ethics is a constant reminder that all of our institutions – including those in the business world – must be built on a culture of trust.

At Dow, we share that belief. Dow's Values are at the core of ethical behavior, and they drive The Dow Chemical Company from the bottom to the very top. The way we treat each other. The way we treat customers and suppliers. The way we treat our investors and our communities.

Now I do not expect you to take that on faith. Intentions are of course important, but we in business – as in any

other walk of life – must be judged by our actions.

Ethics, after all, are not supposed to be abstract principles. They are supposed to be doctrines for the way we behave, the way we work, the way we conduct ourselves in life as well as business.

Today, in that spirit, I want to give you a sense of how we at Dow have embedded ethical behavior – the adherence to Dow's Values – into our everyday business strategy.

I want to begin with a brief overview of our Values and our Vision. Every company has those, of course. You can see them pasted on bulletin boards in nearly every break room.

What I want to illustrate for you today is how we have taken those documents down off the wall and integrated them into our business strategy and our everyday work. I want to show you how we have brought them to life and infused them with the power of the Human Element.

For me, this is the most interesting aspect of ethics ... and perhaps the most unexpected for the people who know The Dow Chemical Company the least.

At Dow, we have entered into what I consider to be the third phase of business ethics. Each phase has been important. But our evolution into this third phase has transformed our Company most profoundly. And this new approach, if broadly applied, has the potential to truly transform the way the world does business.

Let me explain.

The Great Awakening

The first phase of business ethics is what I consider to be the Great Awakening, that period which began in the 1970s as businesses, corporations, governments – and even the medical and legal fields – felt increasing pressure from the public to reform.

I think U.S. Attorney General William Saxby captured the mood in 1974 when he spoke out against what he described as the "seamy" side of business.

Saxby said that there was, and I am quoting, "the feeling among too many in the business community that any means are acceptable to achieving profits and that the crime is not in doing but in the getting caught." Keep in mind that Saxby was a pro-business Republican.

That kind of broad and angry sentiment was a great wake-up call for the business community. It led to the first national conference on business ethics – and the founding a few years later of this wonderful institution at Bentley. Importantly, it also led companies en masse to reassess their internal processes and codes of conduct.

Dow's Code of Business Conduct developed out of this period. It remains an extremely important framework of accountability for everyone in the organization. Those guidelines – along with our core values of Integrity, Respect for People, and Protecting the Planet – dictate not only how we treat one another but also how we conduct business around the world.

I am optimistic that most corporations have codes simi-

lar to ours, and have disseminated them throughout their workforce and backed them up with internal governance mechanisms.

Dow has very senior people who run our Office of Ethics and Compliance, for example. As a global company, our ethics committees interact with employees around the world. These committees not only run our feedback systems – like our EthicsLine – but they work together to oversee our training programs, communicate Dow's Values, and conduct independent investigations free from corporate influence.

That is a hallmark of the Great Awakening, when businesses began writing down – for ourselves and the outside world – that "this is how we will behave" and "this is how you should hold us accountable." It was an important first step for the business community in general, and helped create more transparency and more awareness throughout every sector of society.

Did it bring about a Golden Age of Corporate Ethical Behavior? No.

Saying you <u>believe</u> in ethical behavior and actually <u>acting</u> ethically are two different things.

You only have to look back at the past decade – at the accounting scandals, the deception, the criminal convictions, the eroded trust – to know that the business community still has a long way to go.

But what's most important is this: Making a clear commitment to better business practices was a good – and necessary – first step. So yes, we are making progress.

Triple Bottom Line

Still, that first step, as I have suggested, was incomplete.

That is because it failed to account for the fact that corporations exist in a broader community and that we are granted – by law and by society – certain rights and privileges. And when you have rights and privileges, you also have obligations. Those obligations extend beyond the financial to all of those who have a stake in our business.

Once the business world accepted that broader notion into its culture, we moved into the second phase of business ethics. Starting in the late 1980s, we began thinking in terms of the "triple bottom line"—of the economic, environmental and social impact of our actions.

We began talking not only of shareholders, but of stake-holders – a much wider category.

Remember that by the 1980s, the world was shrinking ... corporations were growing ... and their influence was expanding so massively that in some respects, it exceeded that of governments.

Here is a remarkable fact that explains why companies – like mine – felt a real need to get this part right. Depending on how you count, there are about 195 countries in the world today. The bottom 100 of those last year had a combined GDP of about \$900 billion.

Now here is the remarkable part: That number is small-

er than the combined revenues of the three largest companies in the world – Wal-Mart, Exxon Mobil and Royal Dutch Shell.

I think the first President Bush put into words what those of us promoting free enterprise were coming to grips with in the 1980s and 1990s, as our influence on people's lives grew so dramatically.

Standing on the floor of the New York Stock Exchange, President Bush reminded us that, "In the long run, there is no capitalism without conscience. There is no wealth without character." To which I would simply add: there are no privileges without obligations.

[Pause]

The implications were clear: if we operated without a conscience ... if we failed the character test ... if we failed to look beyond the economics of our enterprise, we would compromise our license to operate.

"License to operate" was a particularly strong idea in the chemical industry, which I represent. In the late 1980s, our industry came together and began promoting the concept of Responsible Care, a global initiative that encourages chemical companies – and I am quoting – to "work together to continuously improve their health, safety and environmental performance, and to communicate with stakeholders about their products and processes."

At the same time, our companies became more actively involved in the communities where we operate: promoting volunteerism, for example, and recycling programs, and diversity initiatives. Our efforts to improve our social performance were especially strong in education, where we began reaching out to classrooms and chemistry labs in real, tangible ways. We donated equipment, donated people, donated money – a lot of money – and dedicated our expertise to improve education in science, technology, engineering, and math.

In 1996 Dow formalized our intentions in these areas and gathered them under one umbrella called the 2005 Environmental, Health and Safety Goals. This was a set of groundbreaking, aggressive, and transparent goals to improve our performance across a wide range of health and safety initiatives. The goals spanned 10 years and called for quantum changes in our EH&S performance.

Embracing the triple bottom line allowed us to make an even greater difference on a global scale. That was especially clear when it comes to the environment and, in particular, energy and climate change.

The chemical industry is among the world's largest users of fossil fuels. In fact, Dow's global operations use the energy equivalent of 850,000 barrels of oil every day for energy and feedstocks. So it was important to us – and important to the environment and the world – that we find a way to reduce that demand.

Now, this was not a cheap endeavor. We have invested well over \$1 billion to reduce our energy intensity and our emissions over the past several years.

The payback? Since 1990, Dow has reduced our energy intensity by 38% and since we announced our first goal to reduce our intensity by 20% in 1994, we have saved 1,700 trillion BTUs of energy ... and prevented 86 million metric tons of carbon dioxide from entering our atmosphere. This energy savings is equivalent to all the residential electricity needs of California for 20 months.

During that same time, we reduced our absolute greenhouse gas emissions by 22 percent – well beyond targets set at Kyoto – and we have driven more than \$9 billion in savings and efficiency straight to our bottom line.

So it was good for the environment, good for Dow's economics and good for our fellow citizens. A triple win for the triple bottom line.

And that is just one of many great success stories that became possible when we expanded our concept of ethics beyond codes, guidelines and simple compliance.

Still, the triple bottom line – as it is practiced most commonly today – has one great limitation.

Most corporations treat their triple-bottom-line programs as an add-on ... a necessary – but separate – piece of their business.

Foundations give out money. The Environmental, Health and Safety teams work to improve community and employee wellbeing. Public affairs teams make sure there is a dialogue with communities and there is a strong effort to be a good neighbor.

All of these are good and worthy actions. And I would not minimize the positive impact they have had on the business world and its many stakeholders. Just as I would not discount the importance of the Great Awakening. Both phases were important stepping stones to where we are today.

But Dow realized several years ago that, given the company we aspired to be, there was more we could do. There was more we had to do.

If we wanted to continue growing our company, while being true to our values, we realized we would have to actually integrate the triple bottom line sense of ethics to our business strategy. We would have to, in other words, make the Human Element a central part of our day-to-day business activities.

That's the next phase. As I said earlier, it is not only the most exciting phase, but I am convinced it will be – by far – the most transformative.

The Great Integration

Already in the six years since I became CEO and started us down this path – Dow has merged vision and values in a way that has transformed our business strategy.

Some of you may have read about the changes we have made in our structure and business strategy to seize the opportunities of this new century.

Much less well known is what I call our "Great Integration" ... how we have infused the values of sustainability

and corporate responsibility into the DNA of the New Dow.

Let me explain, beginning with a brief description of Dow's transformation.

When we examined the business environment several years ago, we saw what we call "mega trends" emerging. These are game-changing global societal shifts that will shape the way we live, work and play during the next several decades. They are redefining the critically important market segments of health and nutrition, energy, consumer behavior, and transportation and infrastructure.

Consider this: The world's population is expected to grow from about 6.6 billion today to more than 8 billion over the next 25 years. The impact from this growth is astounding. The implications it has for our environment ... for our food supplies ... for our ability to find affordable housing and clean water ... are immense.

Around the world every year 1.5 million people die because of water-related illnesses. Every day, some 16,000 children die from hunger-related causes.

The fact is that as the world gets smaller – and human-kind's problems become more complex and challenging – the stakes are raised for all of us.

We came to see these new global challenges as opportunities for Dow. In a real sense, they represent a vast sweet spot – here the world's most pressing challenges intersect with our ability to make a difference <u>and</u> make a profit.

Over the past six years we have literally rebuilt, reshaped and refocused our portfolio of businesses to meet these challenges. Those changes are well-documented and you can track them in the business press and in news stories.

What is less well known – and much less understood – are the cultural changes that have taken place in that time, most especially the Great Integration of the triple bottom line sense of ethics into our business strategy.

Remember the 2005 Environmental, Health and Safety Goals I mentioned earlier?

Once we made progress on those, we immediately took on more ambitious challenges to get us to this next level of integration. We call these our 2015 Sustainability Goals. They represent our intent to not only continue improving our EH&S performance, but to step up with even more far-ranging, more integrated, more collaborative and more innovative goals. At the core of that integrated strategy is our approach to sustainability.

For example, we know that global energy use is expected to rise 70 percent by 2050. Energy consumption is expected to grow by 14 percent in the U.S. alone and we anticipate the vast majority of that demand to be met with fossil fuels.

At the same time there is growing recognition that we need to slow, stop and ultimately reverse the growth of greenhouse gases that come from the burning of those same fossil fuels.

How is Dow responding?

First, we looked internally and recommitted ourselves to

making our plants and operations even more efficient and we are continuing to make great progress.

Second, we began searching for real solutions that will help mitigate this crisis for the rest of the world. So today, we are not only developing alternative feedstocks for our facilities, we have also embarked on a huge effort to develop and promote new energy efficiency solutions for customers. Everything from new forms of insulation to new solar shingles for residential homes. Dow has, for the first time in history, made solar power affordable to the masses. It is a fantastic story.

In the transportation field, we are responding to the need for more efficiency and alternative solutions in a variety of ways. We are building a new facility to manufacture 1.2 billion watt hours of large-format affordable lithiumion batteries – enough to power 60,000 fully electric or hybrid electric vehicles annually. And we have developed a new filter that reduces particulate emissions from diesel engines by up to 99 percent. Other products from Dow make vehicles lighter, safer and more efficient than at any time during history.

Those are just a few examples of how the triple bottom line integration is driving our energy strategy.

But it goes beyond energy. Those same people who will be demanding more and cleaner energy will also need affordable housing ... they will need clean water ... they will need access to affordable, nutritious food. These are the basics of human existence – and yet providing these basics remain some of mankind's greatest hurdles.

For a science company, they also represent a vast opportunity to do good. Again, just a couple of examples.

In the health and agriculture area, we have developed innovative new corn seeds that are not only more drought tolerant but also boast new levels of performance for weed and pesticide controls. At the same time, we have developed new Omega-9 canola oils that have zero trans fat and the lowest saturated fats among cooking oils. Over the past three years, they have replaced nearly 500 million pounds of so-called "bad" fats – or trans fats – in North America.

In water, we have developed reverse osmosis filters that today affordably treat billions of gallons of water every day in some of the least hospitable environments on earth.

As I hope you can see, our entire business strategy is now guided by triple bottom line thinking. From the businesses we choose to be in, to the products we develop and market, and to the R&D investments we make ... all are integrated with an eye toward solving the mankind's largest challenges.

In this third phase of our commitment to business ethics, we also realized that if we wanted to be part of the community – more than a neighbor – more than an employer – we needed a new approach to things like philanthropy and community engagement.

Instead of protecting our license to operate, in other words, we are now working to create sustainable condi-

tions for our communities – and for us – to be successful.

The days of checkbook philanthropy, for instance, are gone. Today, we are leveraging our corporate citizenship contributions by aligning them to our business strategy, too. We make contributions where we can gain economies of scale and foster innovations that can sustain change.

In practice, that means we are forming many more – and many more innovative – public-private partnerships than ever before.

One great example is what we're doing with a group called WaterHealth International.

Dow is a world leader in developing and providing water solutions across nearly all markets. From filtration to purification and separation technologies, we have unmatched expertise and an unrivaled commitment to use that expertise to solve the world's water crisis.

So one of our projects is providing WaterHealth International with a \$30 million loan guarantee and a great deal of functional capability to help finance 2,000 turn-key systems that will eventually supply clean water to more than 10 million people in rural India.

In the old model, we might have provided them with a check and said, "Go do good work." Today, we're working with them, hand-in-hand, to make sure their business model is sustainable and scalable.

This hands-on approach means that this one project has the potential to impact millions of the poorest people on earth. We are working with the local NGO and the village government to ensure ownership of these water systems passes to the villages in such a way that they are economically sustainable.

That kind of effort would not have been possible in a non-integrated model.

Another quick example, again in the water field. Dow supports something I hope you have heard of called the Live Earth Run. One of the participating cities was Marlborough, just a few miles west of where we are today.

By partnering with Live Earth, Dow was able to bring a tremendous amount of focus to the fact that one in eight people around the globe lack access to clean water. At the end of the day, Live Earth was the largest awareness, education and fundraising water initiative in history.

This project is the result of a commitment I made at the Clinton Global Initiative in 2009 to use Dow's resources and our expertise to push for real solutions to this crisis. And it is another example of how infusing our concern for our fellow human kind can make a tremendous difference.

The Great Integration, the third phase of business ethics, ensures that each initiative is supported at a level that could not be achieved before. In other words, it is not only the right thing to do, but it is also the economically right thing to do inside and outside the company. We have found that where there is an opportunity to make a sustainable difference, there is also an opportunity to make money.

That is what President Bush meant by "capitalism with

a conscience." That is how Dow is innovating – across our entire company – to develop solutions essential to human progress by providing sustainable solutions to our customers and our fellow man.

At the end of the day, I hope we are practicing the belief that Henry Ford – another Michigan entrepreneur – described more than a half a century ago ... that "a business that makes nothing but money is a poor kind of business."

Do not get me wrong: profit is important. It gives us the opportunity to sustain our business, reward our shareholders, support our other stakeholders and reinvest for new solutions and new innovations. But the modern-day corporation cannot exist solely for the intent of maximizing profits.

Modern-day corporations need a modern-day lens. And if you embrace the view – as we do at Dow – that we are part of the world and therefore have an ethical obligation to help humankind move forward – then business, any business, can be so much richer and more rewarding.

I like to think of the first phase of business ethics as an awakening of business to the idea that sustaining business on the planet meant protecting them from within the enterprise, where our values defined our culture but external audiences were ignored.

The second phase – the triple bottom line – introduced sustainability as a concept and created parallel programs where business was a partner – but not a driver – to sustaining life on the planet. Here, profit and planet co-existed.

The third phase introduced the integration of the idea of sustainability with the concept of sustainable life on the planet to create sustainable growth, where business has now become the driver and the enabler to protecting life on the planet.

That's why, at Dow, we have introduced "Protecting our Planet" as a value.

Before I take your questions, let me close with a special message to the young people in the audience. I understand how tempting it is for every generation to think that older generations are out of touch and perhaps even misguided. It is too easy to read the news headlines and conclude that business has no interest in ethics. And there is increasingly – among younger people – a feeling that "common decency" is neither common nor decent.

My message to you is this: do not give in to that view. Do not to succumb to that cynicism.

Push against it. Take your values, your morals, your ethical beliefs, your ideals, and insist that companies live by them. And do not do it from the sidelines. Sign up. Join in. Get involved.

If you do, you will find – as I have – that even the largest corporations are collections of individuals, and that every individual, from the shop floor to the board room, can make a difference.

The key is to remember that there is only one planet – that we are all on it together – and that the solutions to our problems will only come when we work together – collab-

oratively – toward mutual goals – and with our imaginations unleashed.

At Dow we call that the power of the Human Element

– the 119th element on the periodic table but the one that makes the difference ... You.

Thank you. ◆

BEST SPEECH ON TOPIC—PUBLIC POLICY

I Wish I Was a Messenger

Writer, Silvia Link; Speaker, Jim Grieve, Assistant Deputy Minister, Early Learning Division, Ontario Ministry of Education

Delivered at the annual conference of Ontario Public School Boards Association, Toronto, Ontario, Jan. 22, 2010

 \mathbf{I} t's so good to be here this morning with my friends—my OPSBA friends.

There's a song rolling around in my head. Not a whole song, really. Just one line. Repeating over and over again, like it's on a loop. A brain worm.

Does that ever happen to you? You get a line from a song in your head and it stays there? Well, turns out this line is actually rather apt for my time with you today. It's from the Pearl Jam song *Wishlist*, and it goes like this: "I wish I was a messenger and all the news was good."

I'm guessing you can relate to that sentiment. By virtue of your leadership position as a school administrator, you frequently find yourself in the role of messenger. You're often in the position of having to deliver "the news." As the saying goes: "I've got good news and bad news." Wouldn't you rather just be able to stop after "I've got good news"?

Clearly, I too am a messenger. That's the reason you invited me to speak to you today. And I'm here to tell you—all the news *is* good. Or, put another way, I'm from the Ministry of Education, and I *am* here to help you.

All the news is good. I believe that, and I'm going to tell you why.

There are three main things I want to say to you today.

- The *first* is that all of our work is guided by a ground-breaking vision for early learning in Ontario. **More children ready for school. More children ready for life**.
- The **second** is that full-day learning for four- and five-year-olds is the first step in making our vision reality.
- And the *third* thing I want to talk to you about is my role as *your advocate* at the decision-making table.

[Vision for early learning in Ontario]

I heard a news story on the radio a while back that really caught my attention. Construction has recently been completed on a \$9-million vault. To build this vault, crews travelled to the remote Norwegian island of Svalbard, in the Arctic Archipelago. They drilled through permafrost, deep into one of the island's mountains. There, they built a vault designed to withstand earthquakes and even nuclear attacks. The entrance to the vault is camouflaged and it's protected with high security.

What's in this vault? Well, if you think it's military se-

crets, money or priceless gems, you'd be wrong. It's something far more precious. Seeds. More than 1.5 million different types of seeds. This vault is being referred to as the "Noah's Ark" for the "most valuable natural resource on earth."

Seeds. Young children. There are definite similarities. Small, but capable of remarkable, inestimable growth. You don't know, just to look at a seed, what it could grow into. Same thing with a young child. But you do know for sure it can't grow without the right environment, without the care and nurturing it needs.

That's what the vision for early learning in Ontario is all about. We're committed to making sure every young child has the chance to get the best start in life. To grow, blossom and mature to the best of their own unique abilities.

Clearly, we stand at a remarkable moment of change and opportunity, and we're all acutely aware of it.

To understand how we're implementing full day learning for kindergarten-aged children, it's essential to first have an understanding of the vision for early learning in Ontario.

This vision is good news. It is far-sighted and imaginative, but at the same time is grounded in scientific evidence and very practical considerations for implementation.

I hope all of you have had the opportunity to read Charles Pascal's report, *With Our Best Future in Mind*. But equally important is the companion document, the summary of the scientific evidence, gathered from Canada and internationally, that will guide implementation.

Today, breathtaking findings by neuroscientists are showing that biology is the ultimate level playing field. The human brain at birth holds within it untold, often untapped, equal opportunity only slightly influenced by genetic prophecy.

When a baby is born, it has a relatively undeveloped brain. Different types of research, such as infant brain imaging, consistently show the profound similarities among newborn human brains. We all start out with basically the same brain. Many scientists now believe that 20 per cent of a person's outcome in life is the result of innate brain capacity. The other 80 per cent is based on what happens after birth.

Unfortunately, we know all too well that the play-

ing field does not remain level for very long. Around the world, research shows, the biggest indicator of how well a child will do in school is the income of the child's parents.

Except in Canada. Canada is the one international exception. In Canada, a child's chances of doing well in school are not solely pre-determined by what their parents earn. That's good news, because it's showing us that our education system and public policies are having an impact.

But not enough of an impact. As you well know, currently more than one-quarter of five-year-olds in Ontario are not ready to fully profit from their grade 1 learning program.

Certainly, because we know that a child's school readiness is a good predictor of academic achievement later on, we want to do whatever we can to increase those EDI scores and reduce children's risk of difficulties throughout their schooling. So, the new early learning vision is based, in part, on the goal of dramatically reducing early childhood risk.

The vision documents address big questions: What is the purpose of early learning? What is it intended to achieve? Realistically, if the goal of education is to help each child maximize potential and we're not yet close to achieving it, then what do we change?

These are important questions, but they're not the only ones worth asking. One of the important aspects of the vision for early learning is that it's more than a school readiness strategy. It's about more than just minimizing risk. Its focus is broader than just academic outcomes. It's also more than just a labour market strategy—offering a more cost-effective child care option to working parents.

Our vision is based on the recognition—again from research, as well as experience—that the human brain has a biological need to learn—all through life. So, our vision for the education system is one that unearths and ignites children's passion, their intrinsic desire to learn, the deep joy of discovery.

Our vision is based on a deep respect for the value of childhood in itself. As the OECD report *Starting Strong* observes: "The challenge exists to focus more on the child and to show greater understanding of the specific developmental tasks and learning strategies of young children."

Kindergarten is already a pretty special place to be, and Ontario has been in the forefront.

For example, we were the first province to introduce public kindergarten for four-year-olds in the 1950s.

But now, kindergarten is going to get even better—even more attuned to the needs of young children. One of the ways we're doing that is by combining the expertise of certified teachers and registered ECEs. There will be a strong focus on all aspects of early childhood development—emotional, social and physical, as well as intellectual.

Early childhood education is often called child "care"—and sometimes it's said in a dismissive way, as though "care" is less important or of less value to society than "education." But I like the idea of making overt reference

to "care" as part of the new early learning program. Findings from brain research indicate that *nurturing* is crucial to the learning process, as well as to their overall development. Emotion—the child's and the teacher's—is openly acknowledged as part of the learning process, helping engage the entire brain.

Trying to engage the entire brain, and the whole child, will be the focus of the new kindergarten program. Research tells us that movement and social interaction helps young children build their brains, whereas sitting still and being silent tends to shut down the brain.

Our new early learning program will be play-based and will focus on creating daily quality experiences for each child. These quality experiences will be tailored to each child—to their needs and their developmental stage. That means that every day, every classroom will look a little different, to give each young brain a more equal chance at optimal development. It's mass **customization**, not mass standardization, that can best harness the extraordinary potential of each child.

Of course, literacy and numeracy will still be a main focus. It's just that we know that literacy and numeracy are created in the brain most effectively through the synergy of biology and experience—through meaningful, engaging activities.

The human brain has a biological need to learn all throughout life, but we know that kindergarten is a pivotal time. Many of you may remember the book *Everything I Need to Know I Learned in Kindergarten*, by Robert Fulghum. Well, in a way it's completely true. The kindergarten years are seen as a broad preparation for life and the foundation stage of lifelong learning. It's a time of transition for children and families. If the transition to full-day early learning is too abrupt or handled without due care, there is risk to the child's well-being. On the other hand, done right, transitions can be a stimulus to growth and development. It's our job to make sure the transition and the program live up the vision.

That's what we're working for—a system that supports the best interest of every child.

Our best *future*. Our *best* future. It can only be achieved through this exciting new vision.

[Pilot year for implementation]

The second topic I want to talk about with you is how this vision is being implemented.

It's important for you to know that the complete early learning vision is embraced by the premier, cabinet and the affected ministries. But, as the saying goes, you can't eat a whole watermelon in one bite. In the same way, we understand that the implementation of the early learning vision needs to be staged over time.

It's good news, I believe, that the Ministry of Education is choosing to realize this new vision gradually—though it may not feel very gradual to either you or me. As you already know, full-day learning for four- and five-year-olds

is the first step in making our vision reality. This part of the vision begins in 2010 and will take five years to fully implement. Though several ministries have a role to play, education is the lead ministry, just as within local communities, school boards are taking the lead in the implementation.

Implementation is already underway, but the 2010-11 school year is really the first chance to "test-drive" the policies and implementation. This first year is a chance for vision to meet reality, for policy to undergo the reality check of the classroom.

To support the first "pilot" year, the government has committed \$200 million in funding to provide 35,000 spaces province-wide. When fully implemented in five years, full-day early learning will cost about \$1.5 billion a year and will provide about a quarter-million student spaces.

So, you can see that implementing even this part of the vision is a considerable task, requiring substantial resources. Now, even though \$200 million is a sizeable amount of funding, especially in this economy, I know that, as school administrators, you naturally wish it could be more. I might also wish the resourcing could be higher. But I'm here to tell you that this is what we've got. That's all there is—there isn't anymore.

But I also want you to consider the Ministry's investment in another light—because it is definitely an investment. A study by James Heckman, professor of economics at the University of Chicago, calculated a seven-to-one return on public investment for young children. Meaning that this year's \$200 million will have the same impact as if the government were to spend \$1.4 billion in other types of social programs. What's more, this is an investment that will continue to pay out over the lifetime of these children. By the time of full implementation, it will be the equivalent of annual \$10.5 billion investment in Ontario communities.

Other studies have shown that every dollar we invest in children before they are six years old saves up to \$17 in future social service costs. So, that's also a long-term benefit to Ontario communities.

Of course, funding is only one of the many implementation considerations. The Ministry guidelines around the Early Learning Program are coming out in EL Memos. They may not answer every question you have, but they're an important start.

The reason that I spend time talking about the vision of full-day early learning is that I know it will help guide your actions. As important as policy and curriculum are for the effective implementation of the new program, I want to encourage you to focus as well on the vision, the main intent, of this new endeavour. Our desired end-state is a program that serves the best interests of young children and their families. More children ready for life.

[Advocacy role]

The **third** thing I want to talk to you about is my role as your advocate at the decision-making table.

Everyone in this room knows that my advocacy role starts with a lifelong commitment to early learning.

I accepted the post of assistant deputy minister because it was a natural extension of the work I've been doing my whole career on behalf of young children, and also because I believed I could be of assistance to schools and boards by representing your concerns and viewpoints at the Ministry.

Earlier, I said that I was from the Ministry. I take that back. I don't see myself as being "from" the Ministry, but rather "with" the Ministry. What's the difference? A great deal, to me. Not 81 days ago, I was where you are now—literally. For 37 years, my entire career to that point, I worked for a school board. Until 81 days ago, I sat where you sit and your concerns were the same ones I had. 13,500 days as a school board staffer vs. 81 days as a Ministry employee.

Well, I'm here to tell you that my perspective hasn't changed. I am with the Ministry, but I am "from" [name of school board/organization/community]. I am totally and completely with the Ministry—I support the vision, policy direction and implementation of the Early Learning Program. I am totally and completely with the Ministry on the implementation of full-day learning for four- and five-year-olds. But I can assure you, at the decision-making table when any issue is discussed, my mindset, my outlook, my way of thinking, are from the perspective of school boards—and with the school principals and VPs who will be the heart and soul of the new program.

I have sat where you sit. I've been on the receiving end of Ministry memos and mandates. I have struggled, as you have, to interpret and implement such directives, wishing at times for greater clarity, longer lead times and more money. I know the competing priorities and realities that you must balance.

As you well know, when I was director, it was my practice to spend one *full* day a week out in the field. In my 11 years as director, I made more than 1,300 school visits.

My approach hasn't changed. By the end of February I will have visited 17 communities, boards, schools child care centres and numerous offices of key union, association, college, Best Start programs and municipal partners. I devote every second Thursday to such visits. Because I'm absolutely convinced I can only be effective as your advocate—and as the advocate for all of the schools and administrators—if I actively keep in touch with you—and with the other stakeholders.

Here's what I've heard. [specific concerns from the particular organization/school board/community—identified through the pre-survey]

I promise you, I commit to you, I solemnly pledge to you that I see my role at the Ministry as one of advocacy *on your behalf* in the discussions and decisions about the policy and implementation of this vital new initiative.

[Call to action]

I've described the vision and the implementation plan

for full-day early learning. Now it's up to you. Researchers can document scientific findings; the government can set policy, allocate resources and provide support. But the vision will only become reality through your leadership and your actions. It's all up to you now.

I say that not in an effort to shirk responsibility, but rather to acknowledge the vital role that local communities, school boards, schools and staff have to play in this endeavour. We entrust the success of this initiative to you.

In part, we're trusting you to see what others can't yet see—a future that does not yet exist. You need to see what others don't.

I'm not sure if you remember back to high school biology, but most people see three district ranges of colour. The colour-detecting cones of the retina are red, green and blue. If you've ever seen the letters RGB on your computer or TV screen or LCD projector, by the way, that's what it stands for—those three colours which, to our eyes, make up every other colour.

However, there are a few people who can see four ranges. Their retinas have a fourth cone and it's orange. This type of person is called a tetrachromat. While the average person can distinguish about one million different colours, a tetrachromat can see 100 million!

All of us in this room, by virtue of our role as educational leaders, need to be like a tetrachromat—we need to see what others don't see.

When it comes to early learning, here's what others see—a long, long, *long* list of questions, issues, challenges, hurdles, problems and trouble. I don't need to run through the list—from the yet-to-be-completed policy and curriculum to very specific questions like—how will the four and five year olds eat lunch and how will custodial contracts be adjusted to deal with the clean-up from that lunch?

And I'm not suggesting for one moment that, as leaders, we should not be concerned with these questions and concerns. Absolutely, we must be aware of these issues and grapple with them.

But, in your leadership role, it's also essential to envision the successful implementation of this new program. Imagine it's September 2010, and you've just come back from visiting some amazing full-day early learning classrooms that are bursting at the seams with happy, engaged children learning through play. Imagine parents who have had a positive welcoming experience with the school system and who are involved with their child's learning. Imagine kindergarten teachers and ECE teachers working collaboratively and effectively learning from each other's expertise. Imagine the quality PD that the early learning team has received and will continue to receive. Imagine school principals who are involved on a daily basis in supporting the early learning team.

Does imagining make it so? Well, in part, the answer is yes. Psychological research shows that we're more than twice as likely to be successful at a new endeavour if we *imagine* ourselves being successful.

So, as leaders, it's essential that you see what can be. And then take the steps to make it a reality. [Conclusion]

During this stage of early implementation, as everything is shifting and changing, I know the lack of certainty will sometimes be difficult to deal with back in your school boards. I'm reminded of a story from the Michael J. Fox bestseller *Adventures of an Incurable Optimist*. He writes about driving cross-country with his family. Apparently, as they were driving through a particularly boring stretch of Wyoming, his oldest son Sam started asking the age-old question, "Are we there yet?"

In the book, here's how Fox describes his response: I pulled the car gently over to the side of the road and looked over my shoulder to the back seat.

"What did you ask me?" I said to Sam, my face and vocal inflection betraying no attitude one way or another.

"Are we there yet?" Sam replied, a bit tentatively now. Michael J. Fox handled that situation so much better than I would have. They were in the precise middle of the middle of nowhere, he writes. But he got out of the car and asked his kids, "What do you guys think? Are we there yet? Go ahead. Look around. Take your time."

As he tells it, "for the next five or ten minutes, the kids canvassed that enigmatic little tract of dirt, grass and sagebrush, finding some flowers, a couple of cool rocks and what appeared to be a petrified curl of coyote turd. I was surprised by how well it worked. We are where we are. If we keep moving, we'll be someplace else. We'll know when we get there."

There will be times during this process of implementing full-day early learning when we will all be tempted to ask, "Are we there yet? Have we fully achieved our vision?" Well, at each stage of the process, we are where we are. Right here, right now, is vitally important. We are where we are. As long as we're progressing, we're in a good place.

And, if we keep moving *together*, we'll get to our goals. We'll know when we get there.

It depends on us—on all of you and on me—to make sure we go forward together. Our progress as an economy, as a learning community, as a society—depends on us moving forward together. It will be our legacy, yours and mine. It will be the most enduring and significant contribution we can have made.

In your leadership of early learning, you are, indeed, messengers—messengers to the future.

And all the news is very, very *good*. ◆

BEST-WRITTEN SPEECH FOR AN OCCASION—COMMENCEMENT

Legacies: They're Not Just for Dead Folks Anymore

Writer, John Santoro; Speaker, Freda Lewis-Hall, M.D., Executive Vice President and Chief Medical Officer, Pfizer Inc.

Delivered at the Commencement Ceremony at Coppin State University, Baltimore, Md., May 23, 2010

President Avery...Distinguished Faculty... Honored Graduates...Guests, Family and Friends.

What a <u>blessing</u> to be with you on this happy day! President Avery...my <u>deepest</u> thanks to the Trustees,

administration and faculty for granting me this honorary degree.

I am touched, and grateful for what this honor means, and for all that it represents.

Thank you so much.

And now...LOOK AT YOU!...our beautiful new graduates!

I can absolutely **FEEL** the power in this room!

You know...34 years ago...this week...I was here in Baltimore...sitting with MY graduating class at Johns Hopkins.

I don't remember <u>A THING</u> about my commencement speaker.

I <u>DO</u> remember thinking about how <u>happy</u> I was to make it through Exam Week...and I remember opening my diploma as soon as I got it...just to make <u>sure</u> it was really there.

I remember that I wanted the congratulations...

I wanted the <u>hugs and kisses</u> from my family...

and most of all...I wanted LUNCH!

Right now...I know that I am the <u>only</u> person standing <u>between you</u> and your diploma...

Between you...and your moment to shine on this stage...

Between you...and LUNCH!

So I will take to heart the words of my Uncle "Big Daddy"...who gave me the same advice, <u>every</u> time I took the stage to speak.

"Sugar"...he said... "If you can't be profound...be provocative...and if you can't be either...BE SHORT!

Today, I <u>may</u> be profound...I <u>may</u> even be provocative... but absolutely for certain...I WILL BE SHORT.

(Pause)

I want to talk today about <u>you</u>...and <u>your</u> legacy...and if I had to give this talk a <u>title</u>...it would be...

"Legacies...they're not just for dead folks anymore."

Your legacy is <u>alive</u> and <u>well</u>...and with every new day...you have a <u>new</u> chance to shape it.

When I think about legacy...I remember the <u>wise words</u> of my Daddy...Harvey Thomas Lewis, whom I am blessed to have with me here today.

Daddy is 91...and running circles around people half

his age

Two years ago, the press did a story on him...he was the nation's <u>oldest</u> active campaigner for President Obama.

A reporter asked Dad if he had ever thought he'd see a Black President in his lifetime...

I guess the reporter expected my father to say something like, "Oh no...not in my lifetime!

Daddy kind of got in the reporter's face...and said... "Definitely...and why not!

"WE...CAN...DO...ANYTHING!"

(Pause)

Dad has a special wisdom that he gained <u>the hard way...</u> by surviving the Great Depression...the World's Deadliest War...and the Struggle for Civil Rights.

And from that wisdom comes a special lesson.

"Your legacy" Dad told me, "is measured very simply.

"It's what you <u>LEAVE</u> behind...

"Whom you <u>BRING</u> behind...

"And what you <u>LEARN</u> along the way."

(Pause)

<u>That's my central message today</u>...and even if you forget <u>everything</u> about me...remember my Daddy's advice.

<u>Every day</u>...brings a fresh opportunity to forge a legacy of leadership.

And every day...you shape that legacy by what you <u>LEAVE</u> behind...whom you <u>BRING</u> behind...and what you <u>LEARN</u> along the way.

(Short Pause)

Let's look at that first measure...what you leave behind. Today, you leave behind the <u>rich experiences</u> of your chosen university.

You close the door on this leg of your life's journey...a journey that hasn't been an easy one for many of you.

You have all **EARNED** your place here.

(Short Pause)

But what are you leaving behind?

You're leaving a body of work here...that adds to this school...just as a mason adds bricks to <u>strengthen</u> a building's foundation.

Whatever your achievements here...<u>take pride in them</u>...and know that you are now forever part of a institution that's a <u>beacon of hope</u> for African-Americans everywhere

Also know that while you have already accomplished a great deal...you didn't do it on your own.

You had some help...check that...a LOT of help.

<u>In front of you</u>...you see the cream of Coppin State,

the teachers who walked with you every step of the way. Behind you are the people who <u>love</u> you...and <u>care about</u> you...and sacrificed <u>a great deal</u> for you.

<u>Around you</u>...seen and unseen...there are thousands of people, past and present...who changed your lives in ways that you <u>cannot</u> see...but should <u>always</u> remember.

Think of them...the founders of this university...<u>so inspired by one teacher</u>—Fanny Jackson Coppin—that they built this school...the former Colored High School of Baltimore...into a great university.

Think of the donors...the alumni...and all the people of Maryland...who support this school in its mission of nurturing potential and transforming lives.

They, too, deserve your thanks.

As was best said by Sir Isaac Newton... "If I have seen a long way...it is because I have stood on the shoulders of giants."

In leaving this university behind...remember that you too, have the opportunity to see a long way...and that you, too, have stood on the shoulders of giants.

(Pause)

Now is your turn to be a giant...to take up the second challenge of your legacy...Whom you bring behind.

All of us, as they say, "Owe Big."

As much as you and I have done on our own...we <u>ALL</u> "owe big" to those who have gone before us.

I was reminded of the giants who blazed the trails for us...just a few weeks ago, at a celebration right here at Coppin State.

We gathered to honor the <u>amazing</u> life of my good friend and spiritual godmother, Dorothy Height, a giant in the field of civil rights.

A woman who stood with Reverend Martin Luther King, Jr., when he called out his dream.

Dorothy died last month at age 97...just <u>one week</u> before the University's long-planned celebration of her life.

She wanted the celebration to go on, and on it went...in Dorothy's style...large...loud...and loving!

That celebration reminded us about <u>how much we owed</u> <u>Dorothy</u>...and, in fact, an entire generation, including <u>my</u> parents and elders...who set out to carry a <u>whole generation</u> of African-Americans along with them.

<u>I</u> benefited from the sacrifices of <u>their</u> generation.

You benefit from the sacrifices of my generation.

Now it's your turn to "pay it forward"...and bring the <u>next</u> generation along with you.

You might not feel ready to do this...after all...you <u>don't</u> <u>even have your diploma yet!</u>

However, we have to face the reality...<u>people need you NOW.</u> For all the progress African-Americans have made in to-

for all the progress African-Americans have made in today's society...to the point of having an African-American as our President...an <u>entire generation</u> is at risk of being lost.

Walk the streets of Baltimore...or many other American cities...and you see why bringing the next generation along with you...<u>simply cannot wait</u>.

So, when it comes to "paying it forward"...

start small...mentor a younger person...read to the elderly....give your time and talent as a volunteer...<u>but start right away.</u>

And if you can't think of any place to start...<u>start here</u>... right here...at Coppin State.

Remember that, like a great cathedral...building a university takes many hands and many years...and the work is never done.

In just a few months, a <u>new</u> class of students will take the desks you once occupied.

What will <u>you</u> do to help them?...and to help those who follow them?

Whether you <u>stay</u> in Baltimore...or set out to find your fortunes elsewhere...remember that your legacy <u>cannot</u> wait...and <u>neither</u> can the people who need you.

We "owe big" to those who went before us.

We pay that debt forward, by helping those who follow. (*Pause*)

We start our legacy in what we <u>leave</u> behind...we extend it in whom we <u>bring</u> behind.

We complete it...with what we learn along the way. Here are some of the things \underline{I} learned along the way.

I learned...early on...that I wanted to be a physician.

I learned that with enough work and a lot of vision, I could change things.

<u>I learned</u> that <u>love can endure</u> and that Momma was right 46 years ago when she proclaimed my then-new boyfriend, at age 17, as my soul mate for life.

<u>I learned</u> that if you are planning a career, don't plan for your <u>next</u> job...plan for your <u>final job</u>, and let your next job be a steppingstone on the way.

And maybe the most important lesson I've learned...is to just be authentic.

A quick story...I am a mentor to many people and a few months ago, a woman approached me at a party.

"Freda"...she said... "You gave me advice once that turned around my life.

You can never meet everyone's expectations.

So just...<u>DO... "YOU"</u>...be absolutely <u>authentic</u> in your approach to the <u>people</u>...<u>problems</u>...and <u>issues</u> in your life.

You are emerging from a historically Black university... where you've had four years to shape your authentic self.

But today...with that diploma...things change.

You enter a larger, more complex world...a messier world...but a world that still places a premium on conformance and cookie-cutter thinking.

Whatever you do in that world...<u>DO...YOU!</u>

You'll face setbacks...walk them off!

You'll witness indignities...turn them, as Dorothy Height did...into a charge for new opportunities.

Find it within yourself...to just be yourself.

You've already learned some of the <u>hardest, most valuable</u>

lessons in life...starting with the reality that a college education doesn't come easy.

Now starts the real learning.

There are enough people who are satisfied to keep their heads down, and to just fit in.

That's not enough...and that's not you.

Do You...Be You.

The rest of life will fall into place if you stay true...to just being YOU.

(Pause)

Mindful of Uncle "Big Daddy's" advice...I come nearly to the end of my talk.

I'll close with this reminder...that <u>legacies</u> have never been only for dead folks.

To the contrary...they're very much for the living...and

you have already begun to form yours.

If it is going in a good direction...I congratulate you.

If it is not...this is the perfect time to bend the trajectory, and put your legacy on the right track.

As you move ahead...keep my Daddy's advice <u>squarely</u> in sight.

Remember that your legacy will be measured by what you <u>leave behind</u>...whom you <u>bring behind</u>...and what you <u>learn along the way</u>.

Keep this in mind...and today will mark more than a happy celebration.

It will mark a turning point in your life...leading to turning points in the lives of many others.

Thank you...congratulations...and the very best of health and fortune! ◆