"What's New at the U" Pilgrim House Unitarian Society - Arden Hills - March 24, 2013

I was thrilled to get your invitation to your congregation to speak about the University of Minnesota. I know a bit about your faith community as I was a member of the First Unitarian Society in Minneapolis for a period of time. I can't think of a group of people who are more passionate about to the benefits of higher education and why advocating for it is so important.

We know inherently, people don't speak up for something they have no personal connection to. So the Alumni Association is setting out to help Minnesotans understand their own personal connection to the University and how it impacts their life and community.

I have a feeling I won't get past the second question before all your hands go up, but please indulge me anyway. I'm a visual learner so I like to do this exercise to help us see your personal connections to the University of Minnesota. I'm going to ask a series of questions and WHEN one of them applies to you, I'd like you to raise your hand and keep it raised.

Raise your hand if:

- You graduated from one of the 5 University of Minnesota campuses
 You are or were a faculty member at the University
 You are a member of the University of Minnesota Alumni Association
- You have a family member who has attended / is attending the U of M
- You have a doctor, dentist, nurse, pharmacist, physical therapist or veterinarian who graduated from the U. (University awards 85% of all medical degrees & 100% of dentistry, pharmacy & veterinary degrees in MN)
- You eat apples, drink wine or plant flowers, shrubs, trees or grass, (over 400 winter hardy varieties have been developed by the U of M)
- You eat products made with wheat? (Over 35 wheat varieties have been developed by the U of M and 70 % of the nation's spring wheat is a U of M variety)

As you can see, whether or not you've ever stepped foot on campus, Every one of us in this room has a connection to the U of M.

At the University of Minnesota, we have not always done a good job of telling our story. But those days are over. The University affects the lives and careers of so many Minnesotans, and many communities around the state. We have a compelling story to tell so let's get started.

The University's story in five chapters

I've broken the University of Minnesota's story down into 5 chapters and will leave time for conversation following.

I've called <u>Chapter One:</u> The Research University, Its Role in Innovation and Discovery. This is a chapter marked by the essence of true lifelong learning: the power and energy of curiosity, and the creation of new knowledge and understanding. People often wonder: What is a research university? And what do we really do? They might think of some things we've done in the past — from the first pacemaker to the invention of the black box on airplanes to the development of new apples or strains of wheat.

It's difficult to provide the so-called elevator speech which explains what a Research University does or what value it brings to a city, region or state. I'm going to give it a shot.

- We are Minnesota's only public research university
- We develop cures, treatments, new products and processes, and scientific breakthroughs and we save lives.

Why should you care about having a research university in your backyard?

Why should you care about a place that is home to new inventions, new educational processes, new ideas and new cures?

Because off of the University's campuses are homes for the innovation that makes Minnesota work, and that contributes to the success of those 20 Fortune 500 companies in the state, but, mostly to the hundreds of start-ups and thousands of small businesses.

- Certainly, we are proud of past accomplishments by our faculty and researchers.
- The University of Minnesota was there when taconite was developed, pacemakers were invented, and anti-AIDS drugs were created.

But in this world of "what have you done for us lately?" — and in an environment of scarce resources — it is important for us to show you what your return on investment is RIGHT NOW.

For example, the innovations coming down the pike for heart health care are simply amazing. We have scientists who are certain we can eliminate heart disease in our lifetime, and it's happening on our Twin Cities campus.

We are seeing progress in finding the cure for diabetes and we are a leader in renewable energy research.

Our faculty and researchers have won grants of more than \$1.5 billion over the last two years to cure and discover.

Those grants were awarded in a highly competitive, nation-wide grant market against thousands of other scientists and scholars.

■ We are ranked eighth among all public research universities in external funding from agencies like the National Institutes of Health and the National Science Foundation ... yet we're the 21st most populous state.

There's no dispute, research is an expensive, labor-intensive business. But, you can't just go to Amazon.com and order a researcher and have her show up via FedEx the next day.

Creating people who are capable of doing research is a handcrafted, long process and it's one that's essential to the scientific, social, and economic enterprise of our state. We at the University get a head start on the handcrafted process by being one of the few universities in the country that offer undergraduate research opportunities.

Our research is also the cradle of creative thought in the arts and humanities. It's what makes MN a cultural magnet within our region.

Not many people move to Minnesota because of the weather. They come; they stay and build lives because of our quality of life. The U is a central part of that.

- Right now, at our Academic Health Center, our faculty, student and researchers are on the verge of major breakthroughs in Alzheimer's, cancer, diabetes and childhood illness cures and treatments.
- We are aimed squarely at the most urgent problem facing this state and nation: spiraling health care costs.
- That answer is not rationing or cut backs. That answer is cures, treatments and preventions that we're working on right now at the University of Minnesota.
- Right now, in our College of Food, Agriculture and Natural Resource Sciences, we are a world leader in studying and combatting the global scourge of Ug99 wheat rust, which could affect the food supply of our entire world.

We are a leader in food safety research, so honored, by being a center on that critical issue for the Department of Homeland Security.

- At our College of Education and Human Development, researchers are working with more than 300 Minnesota National Guard families, aiding in parenting resources and studying the lingering effects of parents' military deployment.
- Our College of Veterinary Medicine produces researchers who start their own businesses like Newport Labs in Worthington, diagnosing and then preventing food animal viruses.

From the pacemaker to the black box, from Honey crisp apples to taconite, the University history of discovery is rich and profound.

Can we guarantee that another breakthrough – like a pacemaker or new soybean strain will be developed here? Guarantees are tough.

But we can guarantee this: If we DON'T invest, if we DON'T attract and retain the best scientists, if we DON'T recruit and support the best young investigators, we absolutely will NOT discover new things. Instead, we will wither as a University. We will decline as a state.

At the University of Minnesota, we don't believe that's an option. What we do is help cure diseases, develop treatments, create new technologies, and — FUNDAMENTALLY — work to solve some of the most pressing social problems we face as a state. Let me tell you about just a few of them.

Take for example, invasive aquatic species.

To whom did the state turn, to solve this environmental crisis? The University of Minnesota.

Based on a recommendation by the Legislative-Citizen Commission on Minnesota Resources, the Legislature invested \$8.7 million in the U to develop a research center aimed at combating such invasive aquatic species as Asian carp and zebra mussels. George Lake, Lake Zumbro, Winona Lake, and the Mississippi near Wabasha, are just a few of the nearby affected waters.

We are the only institution in this state with the experts and resources to conduct such urgentlyneeded research for our tourism industry, our millions of anglers, and our public health.

Where did the state turn to address another issue facing Minnesotans every day whether living in rural or urban areas?

The University of Minnesota!

The University's Center for Transportation Studies is a vibrant research hub and is leading the nation in transportation research. Our researchers are working with the MN Department of Transportation to help communities insure road safety and save lives, particularly in Greater Minnesota.

Or take Associate Professor of Ecology, Evolution and Behavior, Mark Bee, in our College of Biological Sciences.

He is studying how frogs can find each other through sounds and hearing to mate . . . despite all the background noise in their swamps. Sounds pretty sexy, right?

But his research is not really about the intimate lives of frogs. Professor Bee is studying frogs so he can translate such auditory research into helping develop more sophisticated hearing aids for humans.

Meanwhile, our researchers in our Biomedical Discovery District are zeroing in on cures for diabetes — in partnership with colleagues at Mayo — for Alzheimer's and childhood diseases.

Scholars in our College of Education and Human Development are researching the effects on National Guard families when a parent or spouse is deployed to Iraq or Afghanistan ... and the challenging effects when that soldier returns. It is the largest study of the effects of deployment on families, and those families are so thankful for our work.

Intellectual property discovered, invented and developed at the U has hatched 30 startup companies in the past five years. This is during a very challenging economic environment when our state has needed every job we could create.

■ In December, the U announced a new, first-in-the-nation, groundbreaking Minnesota Innovations Partnerships initiative, or MN-IP.

It's designed to move our intellectual property out of the lab and into the marketplace more quickly and, thus, help to drive high-wage jobs, minus much protracted negotiations between the U and private industry.

We are also doing our part to meet the need for the jobs that will keep Minnesota's economy vibrant.

Right now, we are building a state-of-the-art Physics and Nanotechnology Building, where we will help to develop new processes that can be used in cutting edge manufacturing in this state.

We are listening to business owners, we are listening to the market, we are responding.

Talent supply chain

Chapter Two: The University of Minnesota's Economic Impact and Our Human Capital Impact. This is a chapter that expresses the deep value and return in investment in the U ... be it for the state, or for students and their families.

An economic impact study conducted two years ago found that the University of Minnesota

- Is the state's fifth largest employer in MN (State, Mayo, Fed'l gov, Target, U of M)
- Generates \$8.6 billion a year in economic activity in the state which means we return \$13.20 to the state's economy for every dollar in funding we receive from the state; 13:1. Not too shabby. I wish my investments were getting those kind of return rates
- One out of every 43 jobs in the state attributable to the U of M, that's 70,000, jobs statewide, much of that due to our research enterprise.

We live in an economically driven society. But we deliver more than monetary impact. We deliver human capital that fuels the vitality of your community.

We graduate more than 80 percent of the state's new physicians —We graduate ALL of the state's new veterinary, pharmacy and dental grads.

At the heart and soul of the University of Minnesota story is our students. Let's be honest, 15 or 20 years ago, the undergraduate experience at the U was not all that it should have been. We know from alumni surveys that people who went to college at the U felt disengaged, and that was reflected in poor retention rates and awful graduation rates.

If you think that's the way it still is, you haven't seen us lately.

Our 2012 freshman class was by all measures, the best qualified group of first year students in U history.

- We had 38,000 applicants, 5,500 enrolled; we also accept about 3,000 transfer students every year from MnSCU institutions
- Highest ACT scores ever. The average ACT score of our freshman class is 27.5 (on a scale of 36), (honors program avg. is 30)
- The most National Merit Scholars ever, and we believe, the most National Merit Scholars among public universities in the Big Ten.

If the U was ever a safety school, it's not anymore. It's an aspirational school, a school absolutely worthy of our investment.

Applications to the Twin Cities campus are up 110 percent over the past decade. Top students who used to leave the state to go to college are staying.

I'll share the story of just two of our students who are anything but disengaged:

• Elizabeth is from Farmington. She's a junior at our Morris campus, and, I'd say, just a little bit busy. She is engaged in undergraduate research with a psychology professor. She is a Morris admissions tour guide. And she is—get this—triple majoring: in psychology, sociology, and Morris's unique Liberal Arts for the Human Services. In her spare time, she is minoring in biology and statistics. Once a week, we're told, she sleeps.

Unfortunately, Elizabeth is also minoring in student debt.

That's why a key element of the U's biennial budget request is a ZERO increase for undergraduate tuition for Minnesota residents; keeping tuition in check, reducing debt and benefiting students like Elizabeth. No tuition increase is the number one priority for President Kaler.

The first in her family to go to college, Elizabeth has received some financial aid. But, still, by the end of this school, year, her debt will be in the \$12,000 range, with another \$6,000 expected in her senior year. That potential \$18,000 or more has her talking with her friends and wondering how she'll pay it off and what her graduate school options (she wants to earn an advanced degree in public health) can be with that kind of debt load.

Fact is, she's about \$9,000 better off than the average debt of University students, who take out loans in the neighborhood of \$27,000. Student debt is a burden that must be lifted, and that can only happen if we're able to halt rising tuition.

Elizabeth's story is similar to that of thousands of other students on our Crookston, Duluth, Rochester, Twin Cities, and Morris campuses. They are caught in that awful and imperfect storm of state disinvestment and increased tuition.

The next two students are both in our Honors Program: Sam Schreiner is from Lino Lakes.

- He's in marching band, has spent two years in the space physics department evaluating satellite data.
- · Has studied abroad in China and
- Has already been named a prestigious Astronaut Scholar, a grant given by former astronauts to current students

Sam is a rocket scientist, and he's our rocket scientist.

Lastly, there's Erin Diamond, a junior from a small town near Green Bay, Wisconsin. Erin,

- Started doing research as a freshman in the Department of Speech, Language and Hearing Sciences,
- Is currently working on research on autistic language processing
- And is being trained as an MRI operator.

These are just a few of the thousands of spectacular students, future proud alumni of the U and future employees of yours.

Last fall, President Kaler announced we will grow our undergraduate enrollment by 1,000 students, many in the critical areas of Science, Technology, Engineering and Math, or STEM and nursing- these are graduates that will feed Minnesota's economic vitality.

We are responding to employer and student demand. We are responding to the needs of the state and its employers, employees who are demanding not just skilled workers, but qualified engineers and scientists, health professionals and entrepreneurs of all kinds.

From 2005 to 2011, applications to our College of Science and Engineering and the College of Biological Sciences rose by more than 200%. The University adjusted to accommodate that demand.

As we increase the number of students, we are increasing the standards for admission.

Our students are the top young communicators graduating in Minnesota, accountants, social workers, political scientists, Spanish and Chinese language majors, and dancers. You name it.

Our selectivity is not coming at the expense of Minnesota students. We are NOT turning down Minnesota students in favor of out-of-state or international students.

This year, about 64% of our freshmen graduated from a Minnesota High school and that percentage has pretty much held steady over the past decade. When you include transfer students, about 70% of our undergraduates come from Minnesota.

Our businesses need an educated workforce, and we supply it.

Our College of Science and Engineering reports that 95% of our B.S. graduates had jobs in their field of specialization or were in graduate or professional school within six months of graduation.

Eighty-five percent of our Carlson School of Management graduates—and I mean students with four-year bachelors of management degrees—get jobs within 90 days of graduation in such industries as accounting, financial services, investment banking, health care, and manufacturing.

And about 80 percent of those Carlson School graduates go to work for companies here in Minnesota.

So, if anyone asks about the high-level talent supply chain fueling Minnesota businesses, tell them about the University of Minnesota.

- A 2006 survey by the University's Alumni Association found that U alumni had started nearly 10,000 companies in Minnesota.
- Of those company founders, 2,300 of them had first moved here to attend the U.
- Still, more than two-thirds of our students are Minnesotans who become top-notch employees of the future.
- Students learn here, blossom here, then stay here and make this a great state to live and work in.

Chapter Three.

After all that good news, I'm afraid there is a sad chapter.

This chapter is titled: Unsustainable Disinvestment and is a chapter filled with danger.

We have long claimed to be a national model for education ...but we are substantially lagging behind the rest of the nation in funding for higher education. I know these are tough economic times. I know higher education has been cut in most states. I understand we are not alone.

But the average reduction of state appropriations for higher education across the nation — in all 50 states — over the past decade has been 20 percent. That's bad enough, but in Minnesota, it's been 35 percent.

AGAIN: The average cuts in other states, 20%. In Minnesota; 35%.

Over just the past three years alone, we've seen the state reduce its investment in the University by 20 percent.

In fact, our state funding is now below 1997 levels . . . by more than \$127 million! And that despite the fact we have more students, more campuses, more graduates than ever before ... and completing their degrees in a more timely fashion.

We have higher energy costs, higher health care costs, and higher infrastructure maintenance and renovation costs, just like any business. But today we are graduating students more efficiently with less state money than we did 15 years ago, 13 percent more efficiently.

What's the impact of this state disinvestment? A dramatic shift in who pays for the cost of educating a top-flight student. Today, families are picking up a larger portion of the tab than ever before. That means higher student debt and higher tuition. And that's probably the most critical issue facing students today.

We are enrolling 12,400 more students across our five campuses than in the year 2000. We are also producing more than 1,200 additional degrees per year than just five years ago.

The U of M has a \$3.7 billion annual operating budget, more than 69,000 students are educated on our five campuses and earn more than 14,000 degrees every year and we have 500,000 alumni around the world.

President Kaler expects and welcomes close scrutiny of the decisions of his team but also asks that he be judged on what he does and whether or not his decisions steer a path to a stronger future for the University, for the state we serve and for the state's future leaders, our students.

Chapter Four. Its title is: We are good. We are very good. I know, in Minnesota "above average" is important and, even, sometimes, acceptable. It's a Minnesota thing that we don't brag. I mean, if Texans lived here this would be the state of 30,000 lakes. We're the only state that rounds down.

But, our researchers make us the eighth-largest public research university in the country as measured by our ability to win highly competitive federal research grants. But we're the nation's $21^{\rm st}$ most populous state. As I like to tell our National Wrestling Coach of The Year J Robinson, "We wrestle above our weight."

Our schools and colleges of law, pharmacy, public health, veterinary medicine, public affairs, dentistry, and management are all nationally ranked.

Sixteen of our programs are in the Top Ten of their fields.

As I mentioned earlier, our incoming freshmen on the Twin Cities campus this fall will have the highest ACT entrance exams in University history, with our honors students having higher ACT scores than students admitted to Carleton and Macalester.

The positive stories about the University are endless and we are partnering with Universities nationwide, city and county governments, school, industries and communities to get things done.

Let me close with Chapter Five: Local Impact and Statewide Footprint.

This is the chapter about the University's wide and deep footprint, touching all 87 counties, impacting every legislative district.

Starting with Ramsey County:

- 12,668 jobs attributable to the U in Ramsey County
- \$1.4 billion dollar economic impact
- 5,216 students attend the U
- 6,127 employees from Ramsey County
- 39,229 alumni
- 51,677 degrees granted in Ramsey County

Statewide physical presence:

Five campuses:

Crookston, Morris, Duluth, Rochester and the Twin Cities / Minneapolis and St. Paul

Eight Research and Outreach Centers: They interact with producers and industries to test proof of concept. The Research and outreach center in Grand Rapids has the only Zone 3 testing site in the lower 48. That's where we tested the Honeycrisp Apple to see if it would actually produce in Minnesota. As you might have heard by now, it does.

(Outreach Center Locations: Rosemount, Waseca, Lamberton, Morris, Grand Rapids, Crookston, Cloquet, Sand Plain, Becker)

Fifteen Regional Extension Offices:

Andover, Brainerd, Cloquet, Crookston, Farmington, Grand Rapids, St. Cloud, Mankato, Marshall, Moorhead, Morris, Rochester, Roseau, Willmar, Worthington

Eight dental clinics which serve people with limited or no-access to dental care; with 98% of those who receive care at our clinics are Medicaid eligible.

Affiliation agreements statewide with the medical school, school of pharmacy, school of dentistry, school of nursing and school of public health.

Sure the U creates jobs, leaders, and are the state's best talent magnet but more importantly, we are a partner with the state in solving the issues facing us in the near future and the years ahead.

I referred to some of those issues earlier and that was just the beginning.

The U of M is a place where people search for new knowledge, which creates businesses, lifts communities, and changes lives.

So, when we add all five chapters, the University of Minnesota's story is quite simple, **We are**:

- A talent magnet & a talent nurturer for our state's employers & communities.
- A cultural engine and
- An economic engine.

So how many of you think you and your family have benefited from a state with the University of Minnesota in it? (Raise your hands)

How many of you heard something today that you didn't know about the University of Minnesota? (Raise your hands)

Together, we must insure that the University of Minnesota remains accessible, affordable, and striving for excellence.

The University is working every day to convince our legislature of this but we can't do it alone.

Our government relations staff and President Kaler provide the facts and figures to legislators on a daily basis.

When legislators hear those same messages about the value of the University in your words, the University's messages are reinforced.

What the University can't do is tell your stories.

I never talk to a group without doing a call to action. Today I have two:

- 1. Share something you learned today with someone from outside this room. You are the University's most effective advocates when you share the impact of the U with people in your circles of influence.
- 2. Introduce yourself to your legislators. Make sure they know you by name and tell them your University of Minnesota story.

I'll do my best to answer any questions you have.