

UNM BUSINESS AND ECONOMIC SUMMIT

KEYNOTE FROM PRESIDENT STOKES, STATEWIDE RECOVERY AND LONG-TERM PLAN

Good afternoon everyone. I'm Garnett Stokes, President of the University of New Mexico—and wherever you may be sitting as you watch this, we are delighted to have you with us. I hope all of you enjoyed this morning's session.

I know I don't need to tell you that these last 20 months have been particularly tough on our economy; countless businesses across the country were shuttered for more than a year, some permanently. Industries like food services and hospitality had to rethink the way they functioned to survive—but so, too, did nearly every industry, from car dealerships to casinos to colleges and universities. Any place people gathered—and that includes nearly every workplace—had to reorganize or reconfigure to ensure employees and customers alike were as safe and healthy as possible.

But the pandemic hit particularly hard here in New Mexico, partly because we still hadn't fully found our economic footing after the Great Recession before being knocked down again by COVID. Economic development has always been one of our most important objectives as a state, but any playbook we may have had for that post-Recession recovery had to be scrapped during the very first moments of the pandemic. Clearly, we had to think differently.

If there is a silver lining to the pandemic, it's this: when it comes to economic development, we're now obligated to hit the reset button on some of our best laid plans—and to start again with a comprehensive, long-term plan that will make our state's economy more diversified, resilient, and inclusive.

We can do this because New Mexico, and New Mexicans, are valuable assets. Our state is unique in so many ways, with ancient cultures coexisting alongside cutting-edge technology—here in Albuquerque, the latest computer technology is literally produced in the shadow of ancient petroglyphs. Our artists and craftspeople still create traditional pottery, paintings, and rugs, even as they also produce episodes of *Better Call Saul*, artistic spaces like *Meow Wolf*, and the latest installment in the Marvel film universe.

We are unique and diverse—and yet, at heart, we all want the same things: better opportunities, access to education, higher wages, better jobs, brighter futures. For that, we need a plan—and plans not only require us to ask tough questions, but to listen to even tougher answers.

The *Empower & Collaborate* report before us has taken a long look at where we are as a state and where we hope to be – and in asking the hard questions, has also given us tough but honest answers.

And frankly, I find all this encouraging. We are all optimistic about the future of New Mexico—but we also understand that there are obstacles, some self-imposed, that continue to inhibit opportunities for growth and prosperity. Sometimes we get in the way of even our best intentions.

Specifically, the report identifies six challenges that all of us as stakeholders must work to address – ideally in a coherent, unified manner—to best achieve a diversified and resilient economy. As the University for New Mexico, I promise you can count on us to do our part to tackle these challenges head on.

The first challenge identified is a lack of collaboration between economic development stakeholders.

Well, we're certainly trying. Our UNM Business and Economic Summits—just like this one—regularly bring together economic development stakeholders across New Mexico to foster collaboration and envision economic growth. We know that proximity—even through the confines of Zoom windows—spawns collaboration, and we know stakeholders also find these events useful.

We also know information is power. UNM's Bureau of Business & Economic Research is a primary resource for socioeconomic data, which we provide to organizations across the state to help them better understand, forecast and identify trends and changing economic markets in New Mexico.

We do something similar at the UNM Health Sciences Center through our New Mexico Center for Health Care Workforce Analysis. This initiative tracks the number of health care providers in the state, and reports on our efforts to recruit and retain health care professionals in our communities. You can't fix what you don't know about.

Collaboration is also a vital part of our nationally-recognized Anderson School of Management—but so, too, is an assurance that those collaboratives are inclusive and ethical. With the help of a grant from Bank of America, for instance, the Anderson School supports diversity, equity, and inclusion initiatives across the state, including the growth of local, minority-owned businesses. And just recently, we participated in a conference for the Daniels Fund, whose principles we apply to teaching business ethics. We believe economic prosperity begins with being good citizens.

The second challenge we face as a state is difficulty in attracting and retaining talent in urban, rural, and tribal communities.

One of our newest programs at UNM is called Right to Start. UNM Rainforest Innovations

and the City of Albuquerque Economic Development Department are jointly financing the Right to Start movement, which is a campaign to rebuild the American economy by making entrepreneurial opportunity a top priority in our community.

But we're doing more than just talking about it; we're actually seeing our numbers start to tick upward.

In 2020, the State of New Mexico was ranked 18th overall on the Milken Institute State Technology and Science Index, which compares each U.S. state's capacity for achieving prosperity through scientific discovery and technological innovation. And I love this one: Thrillist's 2020 rankings of Great American Cities for Creatives placed Albuquerque at Number 1 among affordable and creative American cities.

UNM's rankings in this regard are nothing to sneeze at, either. I won't read all of them, but the one I find the most fascinating comes from a report released by the Bush Institute and Opus Faveo in which UNM was ranked 2nd for Innovation Impact Productivity among mid-sized research universities. Whether we're helping build parts for the Mars rover, or designing video games on Earth, our students like our facilities, our instructors, and the way we approach problem solving. That's paying dividends both now and in the future.

We are also working to develop programs that identify specific needs in the state, and then design programs to retain and grow local talent to meet those needs. One of the programs we're proudest of is our combined BA/MD program, which is targeted at addressing the physician shortage in New Mexico and meeting those needs with home-grown students who we identify as early as high school. We then provide them with the training and opportunities they need to stay in our state, and practice medicine in any of our rural communities in need of physicians. At the moment, there are 324 students at "various stages of training" and on track to become physicians, with 28 added each year. Forty-nine physicians have completed their training and are in practice, and of these, 69% (34) are practicing in New Mexico. More than half (56%) are from racial/ethnic groups underrepresented in medicine and 57% are from rural hometowns.

Similarly, at UNM-Los Alamos, a Bachelor of Science in Mechanical Engineering program is under way that we think is a game changer.

What's important about the BSME program is it permits students in Los Alamos to obtain a four-year Mechanical Engineering degree entirely on the Los Alamos campus, instead of having to come to Albuquerque to complete the degree. That is a new way of thinking, a new way of delivering our services, and directly meets the needs of the local community - both local students and a local employer we call Los Alamos National Laboratory.

Still, we recognize that we can and should do more—and we're committed to working with

communities to help them identify local industry and local needs, and how we can help support them. We are especially interested in better understanding the needs of our tribes; earlier this month, in fact, we had the privilege of convening a meeting of tribal leadership to seek their input on UNM 2040, our 20-year vision plan, so we can identify and address many of the unique needs of their communities.

This leads me to our third challenge: misalignment between higher education and industry.

Okay: ouch, but: message received, though I think this is an area where we've been flexible and responsive—especially when it comes to aligning ourselves with emerging industries, as well as industries in some of the more rural communities in our state.

UNM-Taos in particular has taken this challenge seriously, with its Taos HIVE, a combination classroom, workspace and support center for aspiring entrepreneurs. HIVE recently received \$500,000 from the U.S. Department of Agriculture for workforce certification training that helps support local food and small-scale farming in Taos—a direct connection between higher education and local industry if there ever was one.

Another great example of this is at UNM-Gallup and its Process Technology Program. This program collaborates with local water processing industries to train students for jobs in industries like water and wastewater treatment, power generation, or pharmaceuticals. Again, an ideal tethering of education and training to local industry.

And we are, of course, constantly working to make sure we meet the needs of some of the largest employers in our state. In direct response to conversations with the national laboratories, for example, who identified a critical need for project management, UNM's Anderson School of Management launched in Fall 2021 a brand new, 30-hour Master of Science in Project Management program.

Students who earn the MSPM will be positioned to enter the workforce in both the private and public sectors, taking on technical and managerial roles in Project Controls, Project Management and Program Management—and meeting head-on a very specific need of one of our state's baseline employers.

As I mentioned earlier, our Bureau of Business & Economic Research is a tool we're really leaning into to better understand, predict, and identify trends and changing economic markets in the state. And what we know is that our target industries are vast and interesting, from aerospace and cybersecurity to film & television and outdoor recreation. We also know that today's students are increasingly interested in industries with a more socially responsible slant, such as sustainable and value-added agriculture, intelligent manufacturing, global trade, and sustainable & green energy.

UNM supports and provides the infrastructure of the workforce for these target industries through our core mission of education – yielding finance and accounting professionals, doctors and healthcare workers, engineers, architects, scientists, and researchers.

While STEM fields will always be a priority, we, like you, have looked at New Mexico’s rapidly expanding industries and are encouraging students to consider majors, and careers, in film production, animation, writing, and video game development. It is our goal to always be nimble in adapting to and creating new curricula and programs that are forward-looking and provide the education, training, and skills needed to succeed in industries that seem to evolve and expand almost daily.

We are also continually investing in programs and facilities to prepare students for careers in these rapidly expanding industries and new technologies. Video games, for example, have seen quantum leaps in technology over even the last two decades—and game development is about so much more than just coding or programming; they also involve interactive storytelling, filmmaking, music composition, and marketing. And talk about a practical skill: each year, the video game industry generates more than \$60 billion.

We’re also preparing our students for jobs in one of the fastest growing industries in our state: the film and TV industry, which drives more than \$600 million in New Mexico alone.

Our College of Film and Digital Arts is not only educating and training the next generation of movie directors and film producers, video game developers, cinematographers, and animators, but we’re also seeing our students snapped up by film production companies and game developers right now, giving them valuable, hands-on experience even as they complete their degrees.

We’re proud of these programs, and we will continually invest in programs and facilities—like our Center for Collaborative Arts Technology— to meet the needs of students who want to ensure they have the skills necessary to enter and succeed in these exciting and constantly-evolving industries. And the next time you settle into a seat in a theater to watch the latest Marvel movie, you’re not just giving your money to Disney; you’re also helping support our local students, and our regional economy, as well.

Finally—and this is important—we also know that more and more of our entrepreneurial students are creating brand new companies and jobs. New and small businesses is where the job growth is taking place in the U.S., so these new businesses are critical to the future economy of New Mexico.

What’s clear is that these students want to forge their own paths and be their own bosses at the head of a start-up company, doing something the rest of us have never dreamed of before. What we traditionally think of as “industry,” then, is actually a fungible and constantly moving

target, defined by innovation and imagination, and not market shares.

It's one of the reasons why, at our Anderson School of Management, we offer a BBA program in Entrepreneurship, specifically encouraging our students to think creatively, and expand our economy beyond what's in front of them. It's also one of the driving principles behind our Innovation Academy, which actively cultivates entrepreneurial minded students.

In fact, we think encouraging innovation, imagination, and entrepreneurship actually is aligning ourselves with industry.

Let's move on to our fourth challenge: Disengagement of socioeconomically disadvantaged communities in planning processes.

This, to me, is perhaps the most important and difficult challenge we'll wrestle with. The students that make up UNM's population are among the most diverse in the country, reflective of the diversity of our state. In Fall 2020, our undergraduate population was 49.92% Hispanic, 5.74% American Indian, 4.08% Asian and 2.62% African American. So, we look like New Mexico. I'm proud of that, and we're trying to lead and inspire by our example.

But it IS work. Even with such a diverse student population, our Division for Equity and Inclusion is constantly providing education and leadership development to promote a more civically engaged campus community that is committed to equality and equal opportunity. And at our New Mexico Rainforest University Center, we're reaching out to a wide range of entrepreneurs around the state—especially in underserved communities—to provide the training and skills needed to advance high-growth entrepreneurship and create a highly-skilled work force.

One of our proudest success stories is our aforementioned Innovation Academy, which is our meta-curricular program for entrepreneurial students. Just listen to this:

- o To date, they have worked with nearly 1,100 students
- o Over 65% of participants were first generation college students
- o Over 50% were students of color, and
- o Over 50% were female.

This program is open to all UNM students, in any major, with a mission of infusing creativity, innovation and entrepreneurship into their degree. But what a difference it is making for some of our most traditionally disenfranchised or disadvantaged students.

What we have learned is if you build it, they will come. Providing clear opportunities for our socioeconomically disadvantaged students is one of the very best ways we have of catching their interest, engaging them, and helping them improve their lives.

And now challenge number five: Public-sector dominance in New Mexico's innovation ecosystem.

Though I've heard this challenge stated as a weakness in New Mexico before, it is, to me, something of a curiosity. We are a state whose economy is rooted in the Manhattan Project, grew through a Cold War and a race to the moon, survived the flurry of national base closures in the 1990s, and has stabilized with the growth of the national labs, military bases, and VA facilities. I would argue, then, that our public sector, and its resources, is one of our major strengths.

As an example, the development of the aerospace sector can be linked to the public sector investment by the State of New Mexico in the Spaceport. So, too, is the Air Force Research Lab's space directorate also a foundational public sector investment.

This public sector investment has led to new company development, as well as recruiting efforts for companies like Virgin Galactic which are building a New Mexico presence. These public sector investments will pay long-term dividends in private sector aerospace development.

For UNM, as the state's only Research 1 institution, I must tell you that our proximity to so many national laboratories and scientific facilities is a genuine attraction. It helps in our recruitment of administrators, scientists, and researchers from around the nation and around the world. And knowing we have renowned science and technology at our doorstep makes UNM and New Mexico attractive to existing tech companies as well as to entrepreneurs looking for a great place for a high-tech startup.

In fact, without the federal research and development funding we receive, our state wouldn't have nearly as many resources in terms of research and tech for entrepreneurs to choose from. We have always found the public sector to be a willing partner, whether it's collaborations with Los Alamos or Sandia National Laboratories, research funding from the National Institutes of Health, or intern opportunities at Kirtland Air Force Base.

Still, I appreciate the challenge that's being articulated here, especially as it relates to the very real competition for talent that exists. We ourselves at UNM compete for talent with both the public and private sectors inside and outside of New Mexico. I think I see this as an opportunity to advise against an over-reliance on the public sector; we can take solace in knowing the public sector has our backs—but it's up to us to nurture and encourage the entrepreneurs who will keep innovating and keep inventing.

For example, at UNM-Valencia, we're closing in on the opening of our Workforce Training Center to provide training and other professional skills needed to meet the needs of regional small businesses. We're also looking at non-degree programs and credential-focused course

offerings to prepare students for specific fields, or to re-train current workers for new opportunities. Non-degree programs and credential programs are both viable and critical to our economy and workforce; it is our job to nurture and support them.

Our leaders at UNM Health Sciences Center are also working to expand our industries into the always interesting and often lucrative private biotechnology arena. Our Clinical & Translational Science Center has created the BioVenture Partnership to support collaboration of New Mexico companies, including matching them with investors and supporting them with our own campus experts and inventors. So far, this partnership has helped access more than \$680 million in Small Business Innovation Research dollars. That's federal dollars, certainly, but it's money that is going right back into our private sector and growing our own local economies.

And here at last we come to challenge number six, concentration of economy in a few key industries.

Look, I get it; when you find something that works, you tend to want to stick with it—even when the industry is no longer viable or is in the way of an entirely new economic infrastructure. One of the foundational economic commandments, however, is “Thou shalt diversify”—and at UNM, it's advice that informs much of our economic development strategy.

As I mentioned earlier, our Anderson School of Management offers a BBA program in Entrepreneurship, specifically encouraging our students to get creative and get innovative—and see beyond our local economies. Anderson also offers a BBA in Film and Digital Media Arts, with an eye on some of most innovative and rapidly growing industries, both in New Mexico and nationally. We're continuing to keep our eye on expanding industries, and adjusting our course offerings, and degrees, accordingly.

We also see a lot of innovative research and ideas coming out of our university—not only from our professors and researchers, but from our students as well. Our tech transfer office, UNM Rainforest Innovations, works to move those discoveries into the marketplace by working with entrepreneurs and established companies to license those technologies.

And it works. Over the past 25 years, they have spun off a wide range of companies in diverse industries, including several startups in the field of high throughput flow cytometry, and a number of successful bioscience companies. In fact, when we opened New Mexico's only incubator for bioscience and life-science startups in 2012, the entire center was filled within six months with one innovative company after another.

Yet we know we need to do more. New Mexico is counting on its research universities to strengthen their ties with industry, and we are responding. We are establishing a UNM Network for Corporate Engagement. UNM Rainforest Innovations will convene the network, which will

be staffed by a newly hired director of Corporate Engagement, Mathis Shinnick. Mathis is an Anderson School alum and has an extensive background in private industry. I look forward to what we can all do together.

We know that it will take collaboration and partnerships for the State of New Mexico to be successful.

Let's start with education.

We know that when it comes to education, higher education institutions like UNM and our colleagues around the state can't do it alone; we're part of a larger educational pathway, and the Empower and Collaborate report calls on EDD, HED, and higher education institutions to work together to help students choose and prepare for careers in high demand areas.

But we also know of the critical role of early childhood, pre-K, and K-12 education in helping prepare and support New Mexicans to engage in our economy and realize their full potential as citizens. One can't really improve economic development throughout the state without also addressing educational issues across the life span. Our College of Education and Human Sciences is teaming up with Albuquerque Public Schools to tackle the many challenges we face to improve educational outcomes. It is also working with other colleges of education in New Mexico to strengthen teacher preparation and retention of successful educators.

Coordination among all of us is critical—and investing in these kinds of programs isn't just an investment in education, it's a down payment on our own economic future.

There are also few discussions in our community about economic development that don't bring up concerns about crime. Many of you here today may have been present last week at the annual Albuquerque Chamber of Commerce crime briefing by District Attorney Raul Torrez, who laid down some stark facts about our criminal justice system that must be addressed.

When I asked him what role UNM could play in creating a safer community, D. A. Torrez provided some facts and issued a challenge. He indicated that those committing the worst crimes have been on a developmental path in that direction for many years and are nearly always victims of Adverse Childhood Experiences (ACES), which include experiencing violence, abuse, neglect, substance abuse, unstable households, mental health issues, housing and food insecurity, and other negative events and experiences.

86% of incarcerated juveniles in New Mexico have experienced four or more ACES, but this is preventable. Treatment and diversion through interventions like UNM's own ADOBE program offer wraparound and longitudinal support services that are scalable and effective solutions.

His challenge to UNM? Become a national leader in solving the problems that prevent crime in the first place. That's focusing on the long-term solutions, which universities are equipped to do. Challenge accepted.

UNM has also accepted the challenge of working with the city and the county on the crisis of homelessness via our efforts on the Homeless Coordinating Council. We are involved in assessing the problem, identifying solutions, and offering services. It's just another example of the ways in which UNM is directly focused on economic development via our business development activities while also working to solve the societal problems that hold us back as a state.

And so, these are the challenges that have been presented to all of us—challenges to be overcome in the name of realizing a better and more prosperous New Mexico. Today, I've given you some idea of what The University of New Mexico has been doing to rise to these challenges. Although we're proud of what we've accomplished so far, we know there is more to be done, much more.

So, I want to briefly mention just a couple more bold initiatives underway to advance economic development in our City and State.

At the Innovate ABQ site in Downtown Albuquerque, construction will be starting in January on long-awaited repairs to the First Baptist Church education wing. The renovations will allow Hatch Spaces to open new bioscience laboratories . . . state-of-the-art facilities for early-stage life science innovation. These spaces will allow our region to retain some of the early-stage bioscience and biotechnology start-ups that are emerging from our research efforts.

We are also very excited about the South Campus Tax Increment Development District or TIDD, a Public-Public collaboration between UNM and the City of Albuquerque to enhance community services, create new jobs and stimulate economic activity. The TIDD will fund public infrastructure with \$336 million of new tax revenue generated within the boundaries of the TIDD. The TIDD will finance much needed public improvements as well as sorely needed research & development job-creating facilities. The TIDD will revitalize an underutilized, unsightly portion of the City. But, more importantly, over the lifetime of the project we expect 4,450 new jobs to be created with over \$3 billion in wages.

Finally, to expand our collaborative strength and long-standing partnership between UNM and the Sandia National Laboratory Advance Materials Laboratory, we are in the conceptual design stage for the creation of the New Mexico Research Innovation Collaborative facility. Our vision for the project is to increase the innovation, prosperity, safety, and security of our state and nation by promoting breakthrough discoveries in science and engineering. The project will also increase the pool of skilled workers to address the growing need for highly skilled high-tech

talent. By bringing together experts in advanced materials, directed energy, supercomputing, and quantum computing, we will be a national model for advanced research partnerships, and will continue to increase our state's economic prosperity.

Ultimately, successful implementation of the economic blueprint laid out in the Empower and Collaborate will be a big job, but I know we're up to it—and it helps to know we have you at our side. As I have hopefully laid out, getting the job done will require all of us—educators, the business community, activists, and policymakers—to work together.

And so . . . let's get to work.

Thank you.