President Marc Johnson is a trained economist. Often, perhaps without even realizing it, the phrases of his academic upbringing sprinkle their way into conversation.

In his Clark Administration office, Johnson spoke recently about the University’s record growth, how student enrollment and overall graduation numbers had increased, how several hundred new faculty had been hired, with more on the way, how new buildings were either being constructed (such as the E. L. Wiegand Fitness Center, to open early 2017), renovated (Palmer Engineering, Lincoln Hall) or were in the planning stages (Act Two of the School of Arts Building Initiative could break ground in May 2017, as well as a new proposed engineering building which, with approval by the Nevada State Legislature in 2017, could break ground not long after).

Then Johnson turned to another piece of the University mosaic: Where the University will be making its strongest contribution to the Nevada economy.

“We can’t think of this in terms of incremental growth,” Johnson said.
The University is striving to become a high-impact research institution to better meet the 21st-century needs of Nevada. The time to realize this goal, says President Marc Johnson, is now.

“It has to be more than that. We have a vision of creating critical mass areas, where you attract people and build programs that clearly align with Nevada’s economic diversification goals.”

Then Johnson paused. Since arriving on campus in 2008 as provost and then ascending to president in 2012, he has been known as a person who listens attentively during conversation, constantly sifting through ideas and synthesizing them. His serious demeanor broke. He smiled. He shifted from economist to humanist.

“We need contributions from across the entire University,” he said. “As long as we remember that we are only as great as the sum of our parts, and we encourage all our people that they should go deeper into a topic area and work collaboratively and build a national or even worldwide reputation, the likelihood of our becoming a high-impact research university dramatically increases.”

Why a high-impact research university? Why now?

“It’s the right time,” Johnson said, noting that Gov. Brian Sandoval ’86 (English) has rebuilt the state’s workforce through an emphasis on higher-skill and higher-wage industries. “We are a base industry in this region. We are a half-a-billion dollar enterprise, headquartered right here in Reno. We produce a product – more than 4,400 graduates last year – that our state needs. More than 75 percent of the 4,400 graduates we produce stay in the state of Nevada to work.

“This is a high-impact product we are producing.”

Johnson knows the critical mass success stories well. He has seen what has happened in earthquake engineering, an area of widely recognized faculty expertise, and home to the country’s largest and most versatile earthquake simulation laboratory.

David Sanders, last year’s faculty senate chair and Foundation professor of civil and environmental engineering, recalled why engineering’s model has worked.

“There was an immediate expectation placed upon all of us, especially at the department level, one that I immediately took as a challenge and placed upon myself, that we would do things that would make a difference,” he said of joining the faculty 26 years ago. “To get there, our program had to know what it did best and
where it could make a name for itself. We had to say, ‘Look, let’s concentrate on two things: earthquake engineering and bridges, and let’s do all we can to build a critical mass in these two areas.’

“We’re a growing institution,” Sanders said. “It’s imperative that we can identify areas where we can put our resources so we can have an impact and move the needle nationally.”

Mick Hitchcock knows a thing or two about moving the needle. Hitchcock, who lives in northern Nevada, is a senior advisor to the bio-pharmaceutical company Gilead. He is a transformational figure in the HIV/AIDS drug treatment world, having created revolutionary single-tablet drugs containing complete treatment regimens.

“It’s a very reasonable goal … and a great aspiration,” he said. “It’s a key part of how the University will play a role within the state, and how the state is going to succeed. You’re talking about the University producing great value to the state, by educating the students that will go on to attain high-paying jobs, and create high-paying jobs for others. Building strength in these key areas is a great way to approach this.”

Jeff Ceccarelli ’76 (civil engineering), former president of state energy giant NVEnergy and chair of the College of Engineering’s Advisory Board, said he views facilities such as the University Innovation Center — Powered by Switch (located two blocks from Reno’s City Hall) as having the potential for spawning business partnerships and fostering emerging new industries. The Innovation Center already houses an important initiative to cultivate the emerging unmanned autonomous systems industry in the Nevada Advanced Autonomous Systems Innovation Center.

“It’s another example of how the collaborative focus on campus has expanded,” he said. “You can really get the sense that there is an inflection point in a community’s progression. We’re finally reaching a point where we can have a much more diversified economy.”

“So much of that has to do with the exciting work the University is doing.”

And for all of the high-tech talk, Johnson is quick to point out that the high-impact research University’s tent is large. The University is classified by the Carnegie Foundation for the Advancement of Teaching as an Arts and Science/Professions Balanced institution.

“The Global Water Center fits directly in the University’s growth model,” Chandra said, noting that without the support of Provost Kevin Carman, College of Science Dean Jeff Thompson and Vice President for Research and Innovation Mridul Gautam, the center would’ve

1 Advancing Nevada’s advanced manufacturing industry

Cutting-edge drone technology is just one of the areas that the University’s high-impact research approach has targeted in recent years. The University has embarked on hiring new professors in strategically important areas such as unmanned autonomous systems, which align with the State of Nevada’s economic diversification goals.
never become a reality. “We are going to help guide direction of societies all across the planet in how we deal with the issue of water.”

Chandra added, “The notion of the University becoming a high-impact research institution is exciting to me. It’s a lofty and profound vision. Most universities never strive for it. We’re pushing things right now as an institution, and I love it.”

In the spring, Johnson conducted an on-air interview with Sarah Cowie, an assistant professor of anthropology, in the KUNR studios. Cowie had just been named a Presidential Early Career Award for Scientists and Engineers recipient by President Barack Obama – yet another national honor for a highly productive anthropology department.

Cowie was joined by a collaborator, Sherry Rupert ’05 (finance), Nevada Indian Commission executive director. The two explained their work at the historic Stewart Indian School in Carson City. Together, they brought welcome resources, research and regional attention to the 110-acre site of some 50 buildings.

“One of the things that archaeology does is it captures the public’s imagination,” Cowie said of her work. “It gets people to really think about the past in a way that they might not do if they just read it in a book.”

Months later, in his office in Clark Administration and upon reflection on that moment in the KUNR studios, Johnson took stock of what Sarah Cowie meant to the University. He said her work was indicative of an institution whose rapid adaptability was helping Nevada better understand where it once was, and where it is now headed.

“Sarah’s example, and the example of so many others who are doing this high-impact work, is what this University is all about,” he said. “In the next few years, our success isn’t going to come at a single point, or in a single moment. Our ultimate success is going to be in how well our people connect the impact of the actual products they produce – students who graduate, new ideas, new applications that change how we do things – to the everyday lives of our citizens. “I don’t see any reason why we can’t contribute, as a high-impact research university, to the progress of our state.”

As a high-impact research university, Nevada is amassing nationally recognized talent in all areas and across all disciplines. Pictured at top left is Deborah Boehm, associate professor of anthropology, who was awarded the Ruth Benedict Global Citizenship Award, granted by the Center for Public Anthropology to only 1 percent of those teaching in the field in North America; at top right is Sudeep Chandra, associate professor of biology and one of the driving forces behind the University’s newly unveiled Global Water Center; at bottom is Sarah Cowie, assistant professor of anthropology, who in the spring was named a Presidential Early Career Award for Scientists and Engineers recipient by President Barack Obama.