TEXANS, IT SEEMS, aren’t content with being second in anything. Now the state has set its sights on creating the nation’s premier higher-education system.

As esteemed public universities in California and other states have faced major budget cuts, resulting in layoffs, furloughs, and enrollment caps, Texas is setting aside hundreds of millions of new dollars to bolster the research and prestige of its universities.

While higher-education officials in some states struggle to win support from state residents and politicians for more money, the Texas endeavor has the backing of voters, who in November approved a nearly half-billion-dollar endowment to increase research capacity at several universities in the state. The thinking goes that by creating more elite research institutions, Texas will lay the foundation for a lasting knowledge economy, attracting high-technology businesses seeking to form partnerships with universities and hire their graduates.

Lawmakers have approved sizable increases in higher-education appropriations over the past five years, passing along some of the revenue gained from taxes and fees on the state’s lucrative oil and natural-
Texas has benefited from its oil and natural-gas industries, and its new research endowment uniquely positions the state to improve the status of several of its universities.

gas industries. While the budgets of a few other states, such as North Dakota and Wyoming, have also benefited from high energy costs, the new research endowment leaves the Lone Star State uniquely positioned to significantly improve the status of several of its universities.

Some of those institutions are now rushing to take advantage of the opportunity, with a flurry of faculty hiring, the addition of numerous academic programs, and plans to attract top students from around the state and country.

For now, Texas can afford to be ambitious. From 2005 to 2010, the state increased spending on higher education by more than 34 percent, compared with a national average of 22 percent for that period. Over the past two years, Texas has increased appropriations for higher education by more than 8 percent.

Along with the recent increases in appropriations, the race to build new research universities has inspired optimism at places like the University of Texas at San Antonio, one of the seven institutions the state has designated “emerging research universities” and thus eligible to compete for the new research endowment, called the National Research University Fund.

The other universities competing for that money are Texas Tech University, the University of Houston, the University of North Texas, and University of Texas campuses in Arlington, Dallas, and El Paso. The research endowment is expected to grow over several years while the institutions work to reach benchmarks they need to meet before they can receive payouts.

The new research money has been described as a means to help Texas compete with California and New York, which have nine and seven members, respectively, of the prestigious Association of American Universities. Texas has just three universities in that organization, though it has the second-highest population, behind California.

Campus leaders at Texas’ San Antonio campus say the competition for the state’s research money will help transform their young university from what was largely thought of as a less-selective commuter campus into “the Next Great Texas University,” a slogan it has recently adapted to articulate its aspirations.

The university’s ambitions and its challenges illustrate both the promise and the hurdles that face the state.

More than half of San Antonio’s student body of nearly 29,000 comes from the surrounding county, and the students reflect the diversity of the region. Forty-three percent are Hispanic, 58 percent are the first in their families to attend college, and 70 percent receive financial aid. The state’s growing population includes large numbers of people from these same backgrounds, and they are more likely than their peers to need extra academic and financial help to succeed in college.

San Antonio also has physical limitations it will have to overcome if it is to extend its mission well beyond its commuter-campus roots. The campus has housing for fewer than 4,000 students and one of the worst deficits of classroom space in the state.

“It’s good to have audacious goals,” said Ricardo Romo, who has previously taught at Texas A&M University at College Station. “We can be much, much better than we are.”

Hiring Spreees

San Antonio and the six other institutions that the state considers to be its emerging research campuses are not only filling faculty vacancies but are, in some cases, creating new positions, given the promise of new pots of state money.

The San Antonio campus has filled 53 tenure-track faculty positions in the past year and has plans to hire 30 more by this fall. The university is also in the process of adding 13 doctoral programs to its field of 21 and focusing on areas such as cybersecurity, health sciences, and sustainability. By 2016 the university plans to have 85 percent of its classes taught by full-time faculty members, compared with 70 percent now, and to lower the number of students per faculty member from nearly 25 now to fewer than 21.

John H. Frederick, provost at San Antonio, says that on average his institution pays full professors about $20,000 less than the universities that they use for a benchmark, but it still gets high-quality researchers by appealing to people who want to help the university grow in prestige. And as the San Antonio university increases its revenues, it plans to raise its average salaries.

“I don’t want them to come to be a big fish in a little pond, I want them to help me make the pond bigger,” he said.

Doug E. Frantz, who began as an assistant professor of chemistry at San Antonio in the fall, said the “clear economic advantages” of the university and the state in general were “overwhelming and evident” compared with institutions he was considering outside Texas.

“Other institutions struggled to come up with a start-up package that met even my most basic needs, or contained too many unknowns since their budgets were in doubt,” said Mr. Frantz, who previously taught at Texas A&M University at College Station.

Similarly, Texas Tech University filled 70 faculty vacancies this year just in the science, technology, and engineering fields, and plans to hire 30 the next academic year. Guy Bailey, the university’s president, says the state’s relatively strong financial position has been a selling point when recruiting faculty members, “given the situation in California and other states.”

A portion of the legislation that created the November ballot measure also set aside $50-million for universities that brought in donations specifically directed to increasing research efforts. The state agreed to match, dollar for dollar, gifts that were between $2-million and $10-million and to add half of the value of gifts between $100,000 and $1-million.

The scramble among institutions for a piece of that $50-million pie was an effective rallying point for some of the universities seeking to increase private giving. Texas Tech raked in the most matching dollars by bringing in nearly $24-million in private gifts over just three months. The University of Texas at Dallas was second, receiving donations of nearly $17-million in the same time period.

Hurdles for Some Universities

But even Texas, with its relatively strong economy, will have a hard time climbing to the top of the academic heap. Higher-education leaders predict that creating even one or two more major research universities
A Changing Face

At the core of Ms. Natalicio’s concern is a sobering statistic: The number of high-school graduates in Texas is expected to increase 17 percent by 2020, according to the Western Interstate Commission for Higher Education. Only three other states, Nevada, Arizona, and Utah, are projected to grow at a faster rate during the next decade. But each of those three states will add a far smaller number of high-school graduates than Texas will.

That factor could work in Texas’s favor if officials can improve the graduation rate for the fast-growing number of low-income, minority students and therefore increase the education level of its work force.

But the growth could also become a liability, straining the state’s ability to meet the need for undergraduate education. And in seeking to make its institutions more elite, Texas could push many of its less-qualified students to community colleges that are already near capacity.

Many institutions in Texas are already challenged with large populations of students who require extra academic support, such as academic advising, tutoring, and remedial course work. While the number of black and Hispanic students in Texas who earned bachelor’s degrees increased by 56 percent between 1997 and 2007, the state’s six-year graduation rate for Hispanic students who entered college in 2001 was 36 percent, nine percentage points lower than the national average for that period, according to the Southern Regional Education Board, a nonprofit policy and advisory organization. Black students had a 32-percent graduation rate, which was eight percentage points lower than the national figure.

And even as the number of students from groups that have historically been underrepresented in higher education is growing, some of the universities looking to be top research institutions are becoming more selective. At San Antonio, the plan is to stop raising undergraduate enrollment and increase graduate-student enrollments nearly 20 percent by 2016.

Jane V. Wellman, executive director of the Delta Project on Postsecondary Education Costs, Productivity, and Accountability, says Texas’ “will not have the state and economy they need if they don’t get a lot more people prepared and through college.”

Mr. Romo, the San Antonio president, says the goals of having more research universities and better serving the growing population are not mutually exclusive. The university will continue to reach out to the region’s high schools and provide significant amounts of academic support even as it seeks to raise its quality, he says.

Enrollment Pressure

It’s not just the emerging universities that are becoming more selective. Their drive to improve is putting pressure on smaller, less-selective universities to follow suit.

Two and a half hours south of San Antonio, Texas A&M University at Kingsville is already facing those pressures, but without the resources or the reputation of campuses like San Antonio.

While the Kingsville campus has some nationally recognized academic programs, such as its Natural Toxins Research Center, it has been an essentially open-enrollment institution. Nearly two-thirds of its students are Hispanic, and 60 percent receive Pell Grants. Kingsville expects to grow to 8,000 students, from 5,900 now, within a few years as more graduates move through Texas high schools, but it, too, is raising its admissions standards, to help it better compete for students as well as federal and corporate research dollars. Instead of considering just standardized-test scores, admissions officials at Kingsville will start looking at students’ grades and class rankings, too.

“Every institution is fighting for good students,” said Sandra Garcia, director of sponsored research at Kingsville, which is seeking to increase its total endowment and research spending from $20-million to $30-million within five years.

And that, in turn, worries many of the state’s community-college leaders, who fear they will be the ones to bear the brunt of the demographic boom. Texas’s community colleges already absorbed three-quarters of the increase in college enrollment that occurred in the state this year, according to figures from the Texas Association of Community Colleges.

Student growth has outpaced increases in state aid. Over the past
decade, enrollment at Texas’s community colleges has grown by 55 percent, while the state’s appropriations for two-year institutions has increased by 27 percent.

The endowment money set aside for the state’s research goals is separate from the appropriations process. But the emphasis on bolstering the state’s prestige overshadows the need to focus just as much, or more, on the institutions that do some of the most important work for Texas, says Reynaldo R. García, president of the community-college association.

“Talking about tier-one institutions is fairly glamorous for a lot of people,” he says. “It’s not to say that the state doesn’t need more research, but the work of the state is being done at two-year institutions, where students are coming in for job skills.”

Raymund A. Paredes, commissioner of higher education in Texas, says the state has not lost sight of the goal of supporting good undergraduate education at the community colleges or regional colleges even as it pursued aggressive research goals.

Texas can succeed at both goals if it is careful to not divert money from regional universities and community colleges, says David S. Spence, president of the Southern Regional Education Board.

“Texas is probably the only state standing at this point that could entertain this kind of initiative,” he says. “There are a lot of students with the right preparation … that will benefit from the greater availability of a research university.”