Louisiana Space Grant Consortium Louisiana State University (LSU) Dr. T. Gregory Guzik, Director 225.578-8597 http://laspace.lsu.edu/ NNX15AH82H

Lines of Business (LOBs): NASA Internships, Fellowships, and Scholarships; Stem Engagement; Institutional Engagement; Educator Professional Development

### A. PROGRAM DESCRIPTION

The National Space Grant College and Fellowship Program consists of 52 state-based, university-led Space Grant Consortia in each of the 50 states plus the District of Columbia and the Commonwealth of Puerto Rico. Annually, each consortium receives funds to develop and implement student fellowships and scholarships programs; interdisciplinary space-related research infrastructure, education, and public service programs; and cooperative initiatives with industry, research laboratories, and state, local, and other governments. Space Grant operates at the intersection of NASA's interest as implemented by alignment with the Mission Directorates and the state's interests. Although it is primarily a higher education program, Space Grant programs encompass the entire length of the education pipeline, including elementary/secondary and informal education. The Louisiana Space Grant Consortium is a Designated, Program Grant Consortium funded at a level of \$720,000 for fiscal year 2017.

#### B. PROGRAM GOALS

# 1) Foster aerospace related, interdisciplinary, science, technology, and engineering research and education at Louisiana colleges and universities.

<u>Objectives</u>: Maintain the LaSPACE LURA and GSRA programs; Maintain the number of Minority Scholars; Maintain the total number of REA applications per year; Reintroduce the URP and RIG programs as conditions warrant; Increase the number of LaSPACE sponsored research groups applying for federal support by 2% each year; Include a session for students to report research project results in each state-wide consortium meeting; Support 1-3 summer student internships each year, depending upon selection and available funding; Increase the number of community college institutions regularly participating in LaACES by one every two years; Support the HASP program at least through 2018 and partner with the NASA Balloon Program Office to develop an extended HASP program for subsequent years.

# 2) Encourage aerospace related industries in Louisiana for economic development and diversification.

<u>Objectives</u>: Develop partnerships with the companies locating at the new Michoud Aerospace Industrial Park; Develop a summer intern program with Louisiana aerospace related STEM industries and support summer interns at these facilities.

# 3) Promote and contribute to science, technology, engineering, and mathematics precollege education excellence.

<u>Objectives</u>: Financially support 2-5 middle and/or high school teachers to attend summer workshops/trainings for STEM curriculum development relevant to NASA, such as the Texas Liftoff workshop and Project Lead the Way certifications; Financially support 10-20 middle school teacher participants in the annual Sci-Port Scibotics teacher training program; Provide staff and material support at affiliate university campuses for at least 2 projects/events targeting middle school/high school students over the next three years.

# 4) Engage and educate the general public in NASA's space exploration projects, benefits and opportunities as well as Louisiana's role in the NASA program.]

<u>Objectives</u>: Support at least 3 Mobile Astronomy Resource System (MARS) events every year at public or school venues around the state; Foster science center and university collaborations resulting in a yearly proposal to NASA informal education solicitations as available; Increase partnership activities with science and informal learning centers within Louisiana, resulting in 1 additional partnership project per year.

# 5) Maintain a cooperative, effective and inclusive consortium of Louisiana institutions to promote aerospace related research, education, and economic development.

Objectives: Improve affiliate participation in consortium meetings, program solicitations and survey responses by 4% each year over the next 3 years; Improve participation of minorities, females, and other diverse groups by 5% per year over the next period; Enhance regular communication with affiliates by establishing a web accessible database of LaSPACE announcements within the first year and investigate new communication technologies; Continue to hold at least one state-wide Consortium Council meeting each year.

#### C. PROGRAM/PROJECT BENEFITS TO PROGRAM AREAS

In year 3 of our current 3 year cycle, Louisiana Space Grant Consortium (LaSPACE) is successfully supporting projects in all of our major program areas. We have issued 45 subawards across 12 affiliate institutions supporting a wide-reaching array of projects. Our project highlights for the year emphasize our Consortia's willingness to evolve and refine our programs. Our commitment to diversity and workforce development are reflected in the establishment of a brand new program and the refinement of well-established one.

In an attempt to improve both student diversity in our funding and overall HBCU affiliate participation in Space Grant programs, we developed a new program for which HBCU affiliates are exclusively eligible. The LaSPACE HBCU Institutional Scholars (HIS) program is directed at HBCU LaSPACE affiliates to provide support for an institutional program for mentoring undergraduate STEM students who are members of groups that are traditionally underrepresented in science and engineering professions, and engaging them in space/aerospace science and technology research and development. The intent of the HIS program is for the institution to develop and maintain a coordinated program to attract, engage, and retain HBCU students in STEM fields providing training not normally obtained in the classroom such as technical presentation skills, mentoring to guide the student through their academic program, providing experiences relevant to aerospace / space sciences, and exposing the students to

alternate NASA related careers. We have funded HIS project at three of our HBCU's. The program at Southern University in Baton Rouge is the most robust, as the campus's Timbuktu Academy served as the model for the HIS program. Southern University in New Orleans has established a similar, but smaller scale model on their campus. Xavier has taken a novel approach, adapting the LaACES program by expanding student contact hours to include things like workshops on technical communications and site visits to nearby Michoud Assembly Facility and Stennis Space Center.

Scientific Ballooning programs for college students in Louisiana continue to flourish. Louisiana Aerospace Catalyst Experiences for Students (LaACES) program participant teams during FY 16's program year were challenged to design and build a solar-eclipse related payload. Nine teams from six institutions competed for additional support to participate in balloon flights in the path of totality for the August 21, 2017 solar eclipse, a projected spearheaded by the Montana Space Grant with leadership support from Colorado, Louisiana, and Minnesota. Louisiana's launch site, Carbondale, Illinois was a major hub for Solar Eclipse activity. Ultimately, LaSPACE brought a team of 50 people from four institutions (Louisiana State University, Louisiana Tech University, McNeese State University, and Delgado Community College) to participate in a three-day event focused of Solar Eclipse Programming which culminated with our balloon launch from Saluki Stadium on Southern Illinois University's campus. The LSU team flew the common payload which was part of the National Space Grant Eclipse Ballooning project; the payloads flown by the other three schools are detailed below.

The scientific goal of Delgado Community College's Big Easy/LAE payload was to measure and record the Intensity of Solar Radiation and temperature, pressure, and humidity as a function of altitude. The payload was constructed using Polydamp Low Emissivity Foam. Photodiodes were used to measure the intensity of solar radiation. The scientific goal of Louisiana Tech's HAVOC payload was to measure and record UV irradiance across 3 spectrums (UVA, UVB, and UVC) as a function of altitude, and to determine changes in UV irradiance during the solar eclipse. This payload was designed as a part of LaTech's senior design program in their college of engineering. McNeese State University's payload Event Horizon aimed to create a profile of the speed of sound as a function of altitude. Throughout the flight profile, the payload measured the amount of time that it took sound waves to travel from a speaker, reflect off of a mirror, and then travel back to the speaker. LaSPACE was impressed with the sophistication and work ethic of the McNeese team's payload, and subsequently offered to support their attendance at the 2017 Annual High Altitude Ballooning Conference (AHAC) put on by the Scientific Ballooning Association. The McNeese students, Brian and Brett Schaeffer, presented a poster on their project in October at the University of Minnesota in Minneapolis. A panel of judges reviewed all 40 poster presentations and ultimately the LaSPACE funded team from McNeese was awarded first place in the SBA poster competition! The Schaeffer brothers have since presented their findings at the LaSPACE fall affiliates meeting in November, and at the Acoustical Society of America Conference in New Orleans in December.

#### D. PROGRAM ACCOMPLISHMENTS

• NASA Internships, Fellowships, and Scholarships (NIFS):

LaSPACE supports the NIFS program area via several established sub-programs laid out in our 2015-2018 proposal. For graduate students we have the Graduate Student Research Assistance (GSRA) program, which has been made more robust (from \$5K to \$8K per award) in light of the closing of the Fellowship program. Our proposal goals for these two programs were to maintain funding for our one active (5<sup>th</sup> of 5 year) PhD Fellows through the last fiscal year (which was accomplished), and to issue at least 5 new GSRA awards each year. For year 3, we were able to fund 10 GSRA awards for 2017-2018 at three University campuses (LaTech, LSU, & ULL).

LaSPACE has three distinct NIFS programs which significantly support undergraduate students. We supported 2 undergraduate Interns at NASA Centers in the summer of 2017; one student from LaTech was at Marshall and one Loyola student was hosted at Stennis. Ten students are funded at two campuses, LaTech and McNeese, via the LaSPACE Undergraduate Research Assistantship (LURA) Program. We have discontinued our Minority Research Scholar (MRS) awards program in response to NASA HQ feedback that program applicants cannot be limited by race, ethnicity, or gender. In place of the MRS program, we refined and expanded the longstanding Scholars program directed by Dr. Bagayoko of Southern University and A&M College, Louisiana's largest HBCU. The new LaSPACE HBCU Institutional Scholars (HIS) program is open to all HBCU LaSPACE affiliates to provide support for an institutional program for mentoring undergraduate STEM students at institutions with populations traditionally underrepresented in science and engineering professions, and engaging them in space/aerospace science and technology related research and development projects. In our first year of this program, we are supporting projects at three universities, Southern University and A&M College in Baton Rouge (SUBR), Southern University in New Orleans (SUNO), and Xavier. More about this program is included in Section C of this report.

### • Higher Education projects:

LaSPACE supports three major higher education programs. Two state-based programs, the Louisiana Aerospace Catalyst Experiences for Students (LaACES) and Senior Design support are open exclusively to affiliates of the Louisiana Space Grant Consortium. The third program, the High Altitude Student Platform (HASP) is a national/international program operated in cooperation with the NASA Balloon Program Office.

LaACES runs for a full academic year. During the first semester a series of lectures and hands-on activities help build student skills in basic electronics, sensor interfacing, real-time programming, mechanical development, and project management. The second semester is then devoted to applying these skills to the design, development, fabrication, and flight of a small (~500 gram) balloon payload. All student teams ultimately fly their payloads in May during a launch trip to the Columbia Scientific Balloon Facility in Palestine, TX.

As we reported in last year's APD, Louisiana was part of the leadership team supporting Montana Space Grant's National Solar Eclipse Ballooning project. During the May 2017 launch, we had 9 teams from 7 institutions compete to join the LSU team in Carbondale, IL for the

August 21, 2017 launch. We ultimately brought a team of 50 people to Carbondale to participate in a number of Eclipse-related events, including the balloon launch. More on this project is included in section C. Management of the LaACES program is performed by a team of faculty and staff at LSU where we are supporting an active LSU student ballooning group. Active LaACES teams are also being funded at Delgado Community College, LaTech University, and McNeese State University. At least 25 students across all four campuses are currently participating in LaACES for the 2017-2018 academic year.

The LaSPACE Senior Design Program is meant to offer supplemental funding in support of high-level student-led research and design projects. Projects must show clear relevance to NASA's mission and ongoing research at one or more of the NASA centers/under the umbrella of one or more of the four mission directorates. This funding source is meant to supplement the cost of materials and supplies and/or travel for competitions related to the student project. Award funds can be requested up to \$4000; while no strict cost-match is required, we do encourage affiliates to show an institutional investment by putting up some match. For 2017-18 we are supporting 4 Senior Design Projects at LSU and 1 at ULL.

LaSPACE has collaborated with the NASA Balloon Program Office (BPO) at NASA Wallops Flight Facility on the HASP program since 2005. HASP provides an annual opportunity for up to 12 higher education student teams across the nation to fly an advanced payload to an altitude of about 125,000 feet for a duration of 10 to 20 hours. NASA BPO supports the balloon flight infrastructure and flight operations while LaSPACE services the platform and mentors the student teams. During this 12<sup>th</sup> year of operation, HASP involved over 110 students from 11 institutions from 10 continental U.S. states. To date HASP has flown more than 110 payloads developed by close to 1,100 students for a total accumulated flight time in the near-space environment of over one week.

#### • Research Infrastructure projects:

The comprehensive LaSPACE Research Infrastructure (RI) program has the purpose of 1) supporting emerging early career researchers or new research directions, 2) expanding research involvement at minority institutions and four-year schools, 3) fostering collaborations and seed projects to bring Louisiana scientists into the mainstream of NASA-related research activity, 4) technical training for the next generation aerospace workforce, and 5) engaging local industries and promoting economic development for the state. Specific programs include Research Enhancement Awards (REA), Research Initiation Grants (RIG), and Unsolicited Research Proposals (URP), as well as interactions with aerospace-related industries. Additionally, it should be noted that all of our programs that support undergraduate and graduate students require said students to be actively working on a research project. This provides both the necessary experience for our students, as well as much needed support for faculty researchers.

The REA program, LaSPACE's most robust and longest-running RI program, provides seed funding for an early career researcher, or an established researcher exploring a new project, with an opportunity to develop an idea in preparation for involvement in a larger funded project. Our twenty-eighth REA competition held in the spring of 2017 with projects starting in July and August received 24 proposals. We were able to fund 12 projects across 5 universities: LaTech,

LSU, LSU- Health Sciences Center in Shreveport, University of Louisiana at Lafayette, and University of New Orleans. These awards are supporting research across a number of disciplines including Space Biology, Geological Mapping, Health Sciences, Wastewater Treatment, Spacecraft Manufacturing, and Nanotechnology.

# • Precollege projects:

LaSPACE has established a small but targeted program aimed toward enhancing pre-college education focusing on the training of K-12 in-service teachers with an emphasis on middle school. So far this year we have financially supported four Louisiana middle school teachers' participation in the summer 2017 Liftoff Workshop offered by Texas Space Grant and Johnson Space Center in Houston. We are also funding an on-going project to reestablish the Regional Autonomous Robotics Circuit (RARC) Professional Development Workshop for Teachers at one of our museum affiliates, Sci-Port Discovery Center in Shreveport, LA.

## • Informal Education projects:

The LaSPACE informal education and public outreach program was developed to provide supplemental learning experiences about NASA projects and science results for the general public, as well as to augment STEM learning in the formal environment. For the last few years, we have been successful in bringing the MARS Truck, or Mobile Astronomy Resource System, to a variety of general public events and school-based events. For year 3 of our award, we supported 4 general public science education events. In August of 2017, we participated in the Crossroads of the Eclipse Festival hosted by the Southern Illinois University in Carbondale. In our highest profile general public event to-date, we served over 50,000 visitors from around the country over 3 days at three different University locations, including the balloon launch in the stadium. More on this event is detailed in section C. In addition to the special solar eclipse events, the LaSPACE MARS Truck team once again provided hands on demos and solar viewing to attendees at the annual Louisiana Earth Day festival (April 2017) and at the Highland Road Observatory in Baton Rouge for National Astronomy Day (May 2017). For the first time this summer, the LaSPACE Team was able to participate in a weeklong language and culture camp run by the Tunica-Biloxi Native American Tribe in Marksville, LA during June of 2017. Finally, with support from the LSU Society of Physics students, the LaSPACE Outreach team staffed a physics demo table at the annual Mini Makers Faire at the Main branch of the Baton Rouge public library. Two school-based outreach events have been successfully staffed and three more are on the books for FY17/ the 2017-2018 academic year. Beyond the 50,000 people served in-person during the Solar Eclipse event, we estimate we served an additional 2,500 students and adults during outreach programs in Louisiana this fiscal year.

#### E. PROGRAM CONTRIBUTIONS TO NASA EDUCATION PERFORMANCE GOALS

### • Diversity:

LaSPACE has always been an open consortium, offering membership to any organization that shares the consortium's goals and objectives. The LaSPACE network includes 30 affiliates that represent the social and economic diversity across the state. Of the 22 universities and colleges

that are part of LaSPACE, 16 (or over 75%) have been designated by the U.S. Department of Education as a Minority Institution or eligible for Title III and Title V programs at least once between 2010 and 2014 (marked by a '\*' in the list on page 8 of this report). Included in these numbers are five of the six Historically Black Colleges & Universities (HBCU) in Louisiana identified by the White House in 2015. NCES statistics show a statewide minority enrollment of ~36% in all disciplines. State statistics show that of students enrolled in STEM degree programs 28% are classed as minority and 22% are women. We exceeded these benchmarks the last three years and anticipate achieving comparable participation rates this year. The LaSPACE Council, comprised of institutional representatives from each active affiliate and the 4-person management team at LSU, includes 5 underrepresented minorities and 10 women.

## • Minority Serving Institution Collaborations:

Five of the six Historically Black Universities and Colleges (HBCUs) and two of the four Primarily Black Institutions in Louisiana are affiliates of LaSPACE. HBCUs Dillard University, Grambling State University, Southern University and A&M in Baton Rouge (SUBR), Southern University in New Orleans (SUNO), and Xavier University of Louisiana are all active members of the consortium, as are PBIs Baton Rouge Community College and Delgado Community College. Two of the six campuses participating in this year's LaACES program are Minority Serving Institutions, Delgado & Xavier. SUBR, SUNO, and Xavier all have active NIFS programs under our new HBCU Institutional Scholars (HIS) Program, which aims to develop a small focused program to train students on HBCU campuses for research careers via experiences not traditionally found inside the classroom.

#### Office of Education Annual Performance Indicators:

0	API ED-17-1	22	(Number of significantly funded NIFS students)
		10	(Number of NIFS to racially or ethnically
			underrepresented students, women, and/or persons with disabilities.) <sup>1</sup>
0	API ED-17-2	8	(Number of educators.) <sup>2</sup>
0	API ED-17-4	9	(Number of informal education events.) <sup>3</sup>
		52,500	(Number of attendees) <sup>4</sup>
0	API ED-17-5	25,000	(Number of K-12 students.) <sup>5</sup>

<sup>&</sup>lt;sup>1</sup>We have not received any demographic data on our HBCU Institutional Scholars projects at SUBR, SUNO, and Xavier. We anticipate approximately 30 funded students and expect a majority of those funded to be underrepresented. The number included here only accounts for underrepresented students funded under a GSRA, LURA, or NASA Internship. The total number of significantly direct funded students will increase when we collect all the data this spring and the number of underrepresented students will correspondingly rise. Additionally, we are not counting students supported under our other program areas: Higher Education and Research Infrastructure.

<sup>&</sup>lt;sup>2</sup>We supported 4 K-12 teachers for Liftoff 2017 in the summer and expect at least 4 teachers to participate in the professional development robotics curriculum training ongoing at SciPort. This number does not reflect the hundreds of educators who attend our public & school-based outreach events nor the numerous college level faculty members we support across all of our programs.

<sup>3</sup>We have supported 4 general public science education events and 2 school-based events in FY17 so far, with 3 more school-based events on the books for Feb & March.

<sup>4</sup>Our official contact at SIU estimates 50,000 people attended the Solar Eclipse events on their campus. As we were a part of all 3 major locations (Touch of Nature, Eclipse Expo @ SIU Arena, Balloon Launches at SIU stadium), we can assume the majority of attendees were impacted by our programming. The additional 2500 are for events in Louisiana.

<sup>5</sup>We conservatively estimate that approximately slightly less than half of our audience were in the K-12 range. For school-based events exclusively, we can confirm that we served 150 students at schools so far this year.

### F. IMPROVEMENTS MADE IN THE PAST YEAR

In an attempt to further improve HBCU participation in Space Grant programs, we developed a new program for which HBCU affiliates are exclusively eligible. The LaSPACE HBCU Institutional Scholars (HIS) program is directed at HBCU LaSPACE affiliates to provide support for an institutional program for mentoring undergraduate STEM students who are members of groups that are traditionally underrepresented in science and engineering professions, and engaging them in space/aerospace science and technology research and development. The intent of the HIS program is for the institution to develop and maintain a coordinated program to attract, engage, and retain HBCU students in STEM fields providing training not normally obtained in the classroom such as technical presentation skills, mentoring to guide the student through their academic program, providing experiences relevant to aerospace / space sciences, and exposing the students to alternate NASA related careers. Three campuses submitted proposals and were awarded funding to support approximately 30 students this academic year.

In August of 2017, we hired a former student from Southern University in Baton Rouge to serve as a program coordinator in the LaSPACE office, Ms. Daneisha Blair. Her primary responsibilities are split between general office support for LaSPACE programs and technical support for the LaACES student ballooning program.

In September 2017, we hired Anthony Ficklin as our Informal Education Curator to replace Bethany Broekhoven who went on to graduate school in Medical Physics the previous year. Prior to his graduation from LSU in May 2017 Anthony was already involved with our MARS truck program developing Earth & Space Science education kits for the classroom and participating in both the Tunica-Biloxi workshop in June 2017 and the Solar Eclipse program in Carbondale, IL in August 2017. Anthony's primary responsibility is to manage our informal education program, but he will also assist in supporting the HASP program.

The HASP system is over 12 years old and component failures are becoming more frequent. Some of these failures are easy to fix, but more often the broken components are obsolete and difficult to obtain. Therefore, LaSPACE and BPO have begun the process to modernize HASP with the goal to maintain this important student flight opportunity well into the future.

#### G. CURRENT AND PROJECTED CHALLENGES

The tradition of budget shortfalls in the state has resulted in massive cuts to higher education. Our smaller affiliates, especially community colleges and HBCU campuses struggle to generate match funds for our programs. The ongoing match from the Louisiana Board of Regents and the steady support of our lead institution, LSU, allows us to offset a good bit of that burden.

The administrative burden on LaSPACE management has increased over the last year. In particular, management of the Columbia Scientific Balloon Facility (CSBF), which operates the NASA scientific balloon program, has changed and the burden to address risk assessment and safety requirements has significantly increased. Some of the new requirements are reasonable but many others are inappropriate for student balloon flight programs such as LaACES and HASP. The increased effort to address such unfunded mandates from NASA will require us to increase our administrative effort while necessarily reducing our direct student support.

Further, while the Workday account system that LSU put in place on July 1, 2016 has been operating a bit more smoothly during 2017, the burden in learning subtle details about the system, new form requirements, and budget account has increased the administrative workload for LaSPACE office personnel. We are, therefore, planning on hiring an additional professional staff person specifically to help handle the increased invoice handling and budget account burden.

Finally, the confusion from Congress concerning the FY18 budget has the potential to destabilize our program. The current end date for our Space Grant award is 4/9/2018, and without a program extension, A) all of our outstanding project subawards will need to be terminated, and B) we cannot proceed with any of our student support programs for the summer or fall of this year. A proposal to extend our program into a 4<sup>th</sup> year has been submitted to NASA, but until that proposal is awarded we must still proceed as if LaSPACE will be terminated in April. Hopefully, the current Congressional problems can be resolved soon, and Space Grant can quickly proceed with A) the 4<sup>th</sup> year extension award and B) a 5-year cycle RFP to be released this summer.

#### H. PROGRAM PARTNERS AND ROLE OF PARTNERS IN PROJECT EXECUTION

Consortium members (see list below) include colleges/universities [Research Intensive (RIU); Research Active (RAU); Four year institutions (4YI); Community Colleges (CC), HBCU's], business/industry partners (B/I), state education boards (Ed), and nonprofit organizations (NPO), structured as Active Members (AM), Inactive Members (IM), and New Members (NM), the latter are members that signed on within the last 6 months. Affiliates designated by the U.S. Department of Education as a Minority Institution or eligible for Title III and Title V programs are marked with an asterisk ("\*"). Each member has an institutional representative/coordinator. When that position becomes vacant, the institution becomes Inactive until a new representative is appointed. As an open consortium, joining LaSPACE is simple, requiring a letter of interest submitted to LaSPACE by an authorized institutional representative, which designates an institutional coordinator. Overall, it is the Institutional Coordinators that have the responsibility

for recruiting students on their campuses, publicizing LaSPACE opportunities, and building an aerospace component to the campus activities, utilizing methods that work locally.

<u>List of Louisiana Space Grant Consortium Members (Alphabetical)</u>

Baton Rouge Community College (BRCC): AM, NM, CC,\*

Delgado Community College (DCC): AM, NM, CC,\*

Dillard University (Dillard): AM, HBCU, 4YI,\*

EBR Recreation & Park Commission: Highland Road Park Observatory: AM, NPO

Gordon A. Cain Center for STEM Literacy: AM, NPO

Grambling State University (GSU): AM, HBCU, 4YI,\*

Jacobs Technology, Inc. at Michoud (Jacobs): AM, B/I

Louisiana Arts and Science Museum / Pennington Planetarium (LASM): AM, NPO

Louisiana Board of Elementary & Secondary Education (BESE): AM, Ed

Louisiana Board of Regents (BOR) (Co-founding Institution): AM, Ed

Louisiana Business and Technology Center (LBTC): AM, B/I

Louisiana State University and A&M College (LSU) (Co-founding/Lead Institution): AM, RIU

Louisiana State University Health Sciences Center in Shreveport (LSUHSC-S): NM, RAU

Louisiana State University of Shreveport (LSU-S): AM, 4YI,\*

Louisiana State University Agricultural Center (LSU-Ag): AM, RIU

Louisiana Tech University (LaTech): AM, RAU

Loyola University (Loyola): AM, 4YI

McNeese State University (McNeese): AM, 4YI,\*

Nicholls State University (Nicholls): AM, RAU,\*

Northwestern State University of Louisiana (NWSU): AM, 4YI,\*

River Parishes Community College (RPCC): AM, NM, CC,\*

SciPort Louisiana's Science Center (SciPort): AM, NPO

Southeastern Louisiana University (SELU): AM, 4YI,\*

Southern University and A & M College (SUBR) (Co-founding Institution): AM, HBCU, RAU,\*

Southern University of New Orleans (SUNO): AM, HBCU, 4YI,\*

Tulane University (Tulane): AM, RIU

University of Louisiana at Lafayette (ULL): AM, RAU,\*

University of Louisiana at Monroe (ULM): AM, 4YI,\*

University of New Orleans (UNO): AM, RAU,\*

Xavier University of Louisiana (Xavier): AM, HBCU, RAU,\*

The Council (comprised of all institutional reps and the central management team at LSU) is the primary oversight and advisory board for LaSPACE. The Council meets annually for a formal two-day meeting during the fall semester at one of our affiliate's campuses, and communicates via teleconference and email between meetings. General administration and management is the responsibility of the LaSPACE Management Team at LSU.